APPENDIX 22

Employee Training Agendas or Course Information

Harwood Heights NPDES Compliance Seminar Outline

I. NPDES Program Overview
   a. What is NPDES?
   b. What is MS4?
      - Aspects of MS4s
   c. What is a BMP?
   d. Why are we here?

II. Regulation of Discharges to the MS4
   a. Illicit Discharges
      - Examples
      - Detergents
      - Sanitary Sewer Waste
      - Naturally Occurring Discharges
      - Exemptions

   b. Construction Runoff Control
      - Silt Fence
      - Dust Control
      - Wattles vs. Straw Bales
      - Inlet Protection
      - Riprap
      - Check Dams
      - Diversion Dikes
      - Washouts
      - Dewatering Activities

   c. Pollution Prevention and Good Housekeeping
      - Salt Storage
      - Municipal Projects
      - Material Storage
      - Street Sweeping
      - Chemical Storage
      - Proper Disposal

   d. Consequences of Non-Compliance

NPDES Phase II MS4 Training Seminar

Travis M. Parry, PE, CFM, CMS4S
Christopher B. Burke Engineering, Ltd.

Aspects of the MS4

- Not Always A System of Storm Sewers
- MS4's May Include:
  - Ditches
  - Curbs
  - Gutters
  - Streams
  - Wetlands
  - Drainage Swales
  - Any Storm Water Conveyance

Why Are We Here?

- Required to develop a SWMP comprised of BMPs and measurable goals for each of the following six minimum control measures:

1. Public education and outreach on storm water impacts
2. Public involvement and participation
3. Illicit discharge detection and elimination
4. Construction site storm water runoff control
5. Post construction storm water management in new development and redevelopment
6. Pollution prevention/good housekeeping for municipal operations

What is NDPES?

National Pollution Discharge Elimination System

Permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States:

- Point sources are discrete conveyances such as pipes or man-made ditches
- Not for individual homes that are connected to a municipal system or use a septic system
- Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

Other MS4 - Examples

- Highway Departments
- Universities
- Local Sewer Districts
- Hospitals
- Military Bases
- Prisons
- Airports

SIU Southern Illinois University

Why Are We Here?

Village must regulate all discharges to the MS4

- Construction Sites
- Commercial Uses
- Industrial Uses
- Municipal Facilities
- Private Residences

What is an MS4?

Municipal Separate Storm Sewer System

A conveyance or system of conveyance owned by a state, city, or other public entity that discharges to waters of the United States:

- Designed or used for collecting storm water;
- Is not a combined sewer; and
- Is not part of a Publicly Owned Treatment Works (POTW)

Best Management Practices

- A BMP is a method, device, or practice for removing, reducing, or preventing pollution in stormwater runoff from reaching receiving waters.
- Examples:
- Construction – Silt Fence
- Municipal – Street Sweeping

Illicit Discharges

- Any discharge to the MS4 that is not composed entirely of stormwater

Outfall Inspections

1. Background Data
2. Outfall Description
3. Quantitative Characterization
4. Physical Indicators – Flowing Only
5. Physical Indicators – Both
6. Overall Outfall Characterization
7. Data Collection
8. Other Concerns

Outfall Inspections

Outfall Inspections

Outfall Inspections

1. Background Data
   a) Personnel
   b) Weather (temp, rainfall, etc)
   c) Location
   d) Land Use

Outfall Inspections

3. Quantitative Characterization
   a) Flow Parameter (volume, depth, etc)
   b) Result
   c) Unit
   d) Equipment

Outfall Inspections

5. Physical Indicators - Both
   a) Indicator (Damage, stains, etc)
   b) Presence
   c) Description (cracking, oily, etc)
   d) Comments

Outfall Inspections

2. Outfall Descriptions
   a) Type (open, closed)
   b) Material (RPC, PVC, etc)
   c) Shape
   d) Size
   e) Submerged

Outfall Inspections

4. Physical Indicators - Flowing
   a) Indicator (odor, color, etc)
   b) Presence
   c) Description (sewage, sulfur, etc)
   d) Severity

Outfall Inspections

Outfall Inspections

6. Overall Outfall Characterization
   a) Unlikely
   b) Potential
   c) Suspect
   d) Obvious

Outfall Inspections

Illicit Discharges

- Paint spills

Outfall Inspections

7. Overall Outfall Characterization
   a) Sample collected
   b) Where

8. Non Illicit Discharge Concerns
   a) Trash
   b) Erosion
   c) Etc.

Outfall Inspections

Illicit Discharges

- Sanitary Sewer Overflows

Outfall Inspections

Illicit Discharges - Examples

- Car Wash

Illicit Discharges

- Grass Clippings/Yard Waste

Illicit Discharges

- Motor Oil

Illicit Discharges

- Animal Waste

Illicit Discharges

- Oil and Grease

Illicit Discharges

- Leaking Dumpster

Illicit Discharges

- Leaking Drums

Illicit Discharges
Sanitary Sewer Waste

- Gray Water

Illicit Discharges

- Detergents

Illicit Discharges

- Suds

Illicit Discharges
Sanitary Sewer Waste

- Foam

Illicit Discharges Sanitary Sewer Waste

- Staining

Illicit Discharges

- Spills

Illicit Discharge: Outfalls

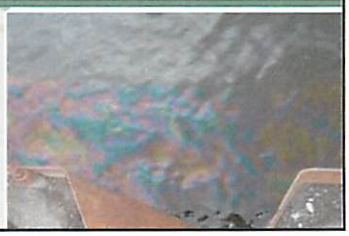
Illicit Discharges Sanitary Sewer Waste

- Failing Septic System or cheater pipes

Illicit Discharges

Trash and Debris

Illicit Discharge: Oil Sheen



Illicit Discharges

- Petroleum Sheen

Illicit Discharges Industrial

- Chemical Odor

Illicit Discharges Industrial

- Discolored water

Illicit Discharges Agricultural Runoff

- Excessive Vegetation

Illicit Discharges or Naturally Occurring?

- Foam or Suds

Illicit Discharges or Naturally Occurring?

- Sheens and Deposits

Illicit Discharges Fertilizers

- Blue Green Algae

Illicit Discharges or Naturally Occurring?

- Staining and Discoloration

Illicit Discharges - Exemptions

- water line flushing
- landscape irrigation
- diverted stream flows
- rising ground waters
- uncontaminated ground water infiltration
- discharges from potable water sources
- foundation drains
- air conditioning condensation
- irrigation water
- springs
- water from crawl space pumps
- footing drains
- lawn watering
- individual residential car washing
- flows from riparian habitats and wetlands

Illicit Discharges or Naturally Occurring?

- Fish kills

Illicit Discharges or Naturally Occurring?

- Algae Blooms

Construction Site Runoff Control – During and Post

- A BMP is a method, device, or practice for removing, reducing, or preventing pollution in stormwater runoff from reaching receiving waters.
- Effectiveness of BMP's
- Selection
- Installation
- Maintenance

Silt Fence

- Tributary area to fence is appropriate
- Trenched into ground
- Backfilled
- Stake spacing w/ lath
- Wire Backing (if required)
- Not for Concentrated Flow
- **NOT A FIX ALL!**

Wattles to Replace Straw Bales

- Can be used in different applications
  - Inlet Protection
  - Ditch Checks
  - Bank Stabilization
  - Perimeter Control

Inlet Protection

Silt Fence Indicating an Erosion Problem…

Wattles to Replace Straw Bales

Inlet Protection

Silt Fence Failure: Use Alternative

Inlet Protection

- A variety of inlet protecting BMPs exist. Choose the appropriate BMP for each situation.
- Types of inlet protection include:
  - Filter fabric (Woven Monofilament)
  - Wattles
  - Pre-fabricated Devices
  - Filter Baskets
  - Silt fence
  - Stone
  - Vegetated Buffers
  - Any combination of the above

Result of Failing to Maintain Inlet Protection

Inlet Protection: Wattles

Street Inlet Protection

Filter Basket

Prefabricated: Long Term and High Flow

Street Inlets

Filter Basket Cleanout

Prefabricated: Long Term and High Flow

Street Inlet Protection: Filter Fabric

- Woven Monofilament
- Low flow inlets
- Wrap around back
- Staple
- Don't puncture
  - May cause flooding
- Require Maintenance

Stone Inlet Protection

Street Sweeping

- Streets are scraped, and swept to maintain sediment free roadways
- Curb ramps are constructed of non-erodible materials
- Removes dirt and debris before entering a stormwater management facility.
  - Reduces catch basin maintenance.

Construction Entrance / Exit

Concrete/Construction Washouts

- Make the drivers aware
- Washout area is located at least 50' from storm drains or drainageways
- Stone driveways don't count…

Dirt Ramps

Concrete/Construction Washouts

Concrete/Construction Washouts

Construction Entrance / Exit

- Install at:
  - Concrete Washout
  - Soil Stock Piles
  - Construction Roads
- Proper size
- Correct materials used to construct
  - DO NOT CAP WITH GRAVEL
  - Fabric Installed
- Remove accumulated sediment, install stone

Concrete/Construction Washouts

Concrete/Construction Washouts

Construction Washout

Dewatering…Floating the Pump

Filter Bag…Fine Clays

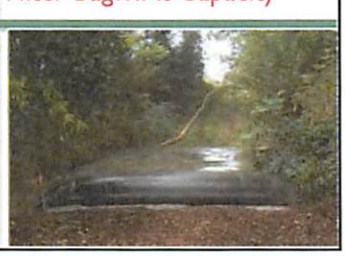
De-Watering Illicit Discharge

Filter Bag…Onsite

Filter Bag…Fine Clays

Dewatering…Floating the Pump

Filter Bag…At Capacity



Dewatering Activities

Dewatering Activities

Non-Storm Water Runoff

Water Main Flushing

Illicit Discharge

Illicit Discharge From Pumping

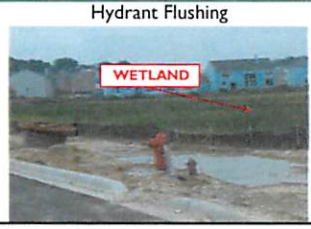
Unprotected Inlet

Pollutant Storage

- Store possible pollutants in an upland area, away from inlets
- Have MSDS onsite
- Include storage area in SWPPP
- Document possible pollutants in SWPPP

Non-Storm Water Runoff

Hydrant Flushing



Next Stop…Violationville

Pollutant Storage

Designate chemical storage area(s) onsite to store:

- Fuel Trucks
- Fuel Tanks
- Form Oil
- Hydraulic Oil
- Tar Buckets
- Port-a-Potty's

Pollutant Storage Violation

Port-A-Potty

Stockpiles Are More Than Soil

Pollutant Storage Violation

Pollutant Storage


Secondary Containment

Pollution Prevention and Good Housekeeping

- Procedures or activities that municipalities and their employees can do to prevent or reduce stormwater contamination from municipal operations.

Pollutant Storage Example

Soil Stockpiles

- Stockpiles are surrounded by silt fence
- Stockpiles are stabilized
- Stabilized Entrances
- Location!

Pollution Prevention and Good Housekeeping

Municipal Activity	Potential Pollutants								
	Sediment	Nutrients	Trash	Metals	Bacteria	Oil & Grease	Organics	Pesticides	Other (Specify)
Building and Grounds Maintenance and Repair	X	X	X	X	X		X	X	X
Parking/Storage Area Maintenance	X	X	X	X	X		X		X
Waste Handling and Disposal	X	X	X	X	X		X	X	X
Vehicle and Equipment Fueling			X	X			X		
Vehicle and Equipment Maintenance and Repair				X			X		
Vehicle and Equipment Washing and Steam Cleaning	X	X	X	X			X		
Outdoor Loading and Unloading of Materials	X	X	X	X			X	X	X
Outdoor Container Storage of Liquids		X					X	X	X
Outdoor Storage of Raw Materials	X	X	X				X	X	X
Outdoor Process Equipment	X		X	X			X		
Dumpster Activities			X		X		X	X	X
Landscape Maintenance	X	X	X		X			X	X

Pollution Prevention and Good Housekeeping

- Education and training are first and most important steps in reducing or preventing discharges from municipal activities

Pollution Prevention and Good Housekeeping

Pollution Prevention and Good Housekeeping

- Municipal project with no SE/SC measures

Salt Piles

Salt Storage

- Store piles under a roof or impermeable layer
  - Minimize contact with precipitation and storm water runoff
- Out of 100 yr Floodplain
- Stored on impermeable surfaces
- Contained within a curb or berm
- Store at least 50 feet from wetlands or streams
- Can contaminate surface and ground water

Pollution Prevention and Good Housekeeping

- Salt box next to inlet

Pollution Prevention and Good Housekeeping

Salt Application

- Identify Environmentally sensitive areas on salt routes
  - Wetlands, streams, drainage swales, prairies, lakes, ground water recharge…
- Install impermeable barriers along sensitive areas
- Reduce plowing speed
- Reduce application rates at sensitive areas
- Clean out storm drains before the spring rains

Pollution Prevention and Good Housekeeping

- Uncovered drums

Pollution Prevention and Good Housekeeping

- Oil Recycling Storage Tanks

Pollution Prevention and Good Housekeeping

- Demonstration Areas

Pollution Prevention and Good Housekeeping

- Proper Disposal of Municipal Generated Wastes

Pollution Prevention and Good Housekeeping

- Inspection and maintenance procedures and schedules
  - Create and follow!

Pollution Prevention and Good Housekeeping

- Clearly Marked Procedures and Equipment
- Signage

Pollution Prevention and Good Housekeeping

Pollution Prevention and Good Housekeeping

- Pet Waste Pick Up Station

Pollution Prevention and Good Housekeeping

Pollution Prevention and Good Housekeeping

Pollution Prevention and Good Housekeeping

Pollution Prevention and Good Housekeeping

Pollution Prevention and Good Housekeeping

- Dewater CORRECTLY!

Pollution Prevention and Good Housekeeping

Pollution Prevention and Good Housekeeping

- Municipal Projects

How to Help

Identification – Be aware

Notification – Alert the appropriate person

Documentation – Photos, Work Orders, Emails

Elimination – React or Follow up

Pollution Prevention and Good Housekeeping

Pollution Prevention and Good Housekeeping

- Watermain Breaks

Failure to Comply

- Municipalities and governmental entities NOT exempt from enforcement actions

$$$

Questions ?




Photo References

www.emeraldseedandsupply.com
www.aot.state.vt.us
www.nwequipsales.com
www.aot.state.vt.us
www.greatamericantec.com
www.thedeicingbusiness.com
www.depweb.state.pa.us/news/lib/news/oilsheen/JPG.jpg
www.nscc.govt.nz

APPENDIX 23

Compliance Documentation – Public Education and Outreach

Dear Residents,

This year, as in years past, your tap water met all USEPA and Illinois EPA (IEPA) drinking water health standards. The Village vigilantly safeguards its water supply, and we are able to report that Harwood Heights had no violations of a contaminant level or any other water quality standards in the year 2017. This report covers January 2017 through December 2017, and summarizes the quality of water that was provided last year, including where your water comes from, what it contains and how it compares to standards set by regulatory agencies. Much effort goes into ensuring that you and your family get an abundant supply of clean, fresh water from Lake Michigan. The Harwood Heights Water Department will be making some improvements in its distribution system in the near future and we hope this will add to the integrity of the system as a whole.

Arlene Jezierny
Mayor

Marcia Pollowy, Village Clerk
Trustees: Jeffrey Rasche, Anna Wegrecki, Annette Volpe, Therese Schuepfer, Lawrence Steiner, Giuseppe S. Zerillo

Village of Harwood Heights

Keeping you informed on water quality in your community

June 2018

Water Quality Report

Water Conservation Tips

Water conservation measures not only save the supply of our water source, but can also cut the cost of water treatment by saving energy. Here are some conservation measures you can take:

At Home:

- Fix leaking faucets, pipes, toilets, etc.
- Install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Don't use the toilet for trash disposal.
- Don't let the water run while shaving, washing, or brushing teeth.
- Run the dishwasher only when full.

Outdoors:

- Water the lawn and garden as little as possible.
- Choose plants that don't need much water.
- Repair leaks in faucets and hoses.
- Use water from bucket to wash your car, and save the hose for rinsing.
- Obey any and all water bans or regulations.

Annual Drinking Water Quality Report
Harwood Heights
IL 0311140
Annual Water Quality Report
For the period of January 1 to December 31, 2017

This report is intended to provide you with important information about your drinking water and the efforts made by the Harwood Heights water system to provide safe drinking water.
The source of drinking water used by Harwood Heights is Purchase Water.
For more information regarding this report, contact:
David T. Koch @ 708-867-7200 Thomas Wolfe @ 708-867-7206
Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pickup substances resulting from the presence of animals or from human activity.

Drinking water including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

Source Water Assessment Availability:

When available, a Source Water Assessment summary is included below for your convenience:

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and fems that frequent the Great Lakes area. Hereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake. Throughout history there have been extraordinary steps taken to assure a safe source of drinking water in the Chicago land area. From the building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's waterways and the city's Lakefront Zoning Ordinance. The city now looks to the recently created Department of the Water Management Department of Environment and the MWRDGC to assure the safety of the city's water supply. Also, water supply officials from Chicago are active members of the West Shore Water Producers Association. Coordination of water quality situations (i.e., spills tanker leaks, exotic species, etc.) and general lake conditions are frequently discussed during the association's quarterly meetings. Also, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality.

Finally, one of the best ways to ensure a safe source of drinking water is to develop a program designed to protect the source water against potential contamination on the local level. Since the predominant land use within Illinois' boundary of Lake Michigan watersheds is urban, a majority of the watershed protection activities in this document are aimed at this purpose. Citizens should be aware that everyday activities in urban setting might have a negative impact on their source water. Efforts should be made to improve awareness of storm water drains and their direct link to the lake within the identified local source water area. A proven best management practice (BMP) for this purpose has been the identification and stenciling of storm water drains within a watershed. Stenciling along with an educational component is necessary to keep the lake a safe and reliable source of drinking water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Village of Harwood Heights Water Department is responsible for providing high quality drinking water, but cannot control the verity of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your tested. Information on lead in drinking water testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Village of Harwood Heights

Regulated Contaminants Detected in 2017 (collected in 2017 unless noted)

Coli form Bacteria

Maximum Contaminant	Total Coli form Maximum	Highest No. of Positive Total	Fecal Coli form or E. Coli Maximum	Total No. of Positive E. Coli or Fecal Coli form Samples in	Violations	Likely Source of Contamination
0	0	0	Fecal Coli form or E. Coli MCL: A routine sample and a repeat sample are total coli form positive, and one is also fecal coli form or E. Coli positive.	0	no	Naturally Present in the Environment

Lead and Copper Date Sampled 07/9/17

Definitions:

Action Level (AL): The Concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is known or expected risk to health. ALG's allow for a margin of safety.

Lead and Copper	Date Sampled	MCLG	Action Level(AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contaminant
Copper	2017	1.3	1.3	0.138	0	ppm	N	Erosion of natural deposits; Leaching from wood Preservatives; Corrosion of household plumbing systems
Lead	2017	0	15	2.81	0	ppm	N	Corrosion of household plumbing systems; Erosion of natural deposits

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to Maximum Contaminant Level Goal as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

mg/l: milligrams per litre or parts per million – or one ounce in 7,350 gallons of water.

ug/l: micrograms per litre or parts per billion – or one ounce in 7,350,000 gallons of water.

na: not applicable

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's allow for a margin of safety.

Regulated	Collection Date	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violations	Likely Source of contaminants
Disinfectants & Disinfection By-Products								
Total Haloacetic Acids (HAA5) Chlorination	2017	20	19.58 - 20.12	ppb	n/a	60	No	By product of drinking water chlorination
(Total Trihalomethanes)	2017	42	32.9 - 42.2	ppb	n/a	80	No	By product of drinking water chlorination
Chlorine	12/31/2017	0.6	0.5 - 0.6	ppm	MRDLG=4	MRDL=4	No	Water additive use to control microbes

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations do not change frequently. Therefore, some of this data may be more than one year old.

Village of Harwood Heights Board Meetings — **7:30 pm** — **708-867-7200 2nd & 4th Thursday of the Month**

Regulated Contaminants City of Chicago 2017
Detected Contaminants

Contaminant (unit of measurement) Typical source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detections	Violations	Date of Sample
Turbidity Data						
Turbidity (NTU/Lowest Monthly % <0.3 NTU) *Soil runoff*	N/A	TT(Limit 0.3 NTU)	Lowest Monthly % 100%	100%-100%		
Turbidity (NTU/Highest Single Measurement) *Soil runoff*	N/A	TT(Limit 1 NTU)	0.26	N/A		
Inorganic Contaminants						
Barium (ppm) *Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits*	2	2	0.0193	0.0191-0.0193		
Nitrate (as Nitrogen) (ppm) Runoff from fertilizer use; Leaching from septic tanks sewage; Erosion of natural deposits	10	10	36	0.32 - 0.36		
Total Nitrate & Nitrate (as Nitrogen) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	36	0.32 - 0.36		
Total Organic Carbon (TOC)						
TOC	The percentage of TOC removal was measured each month and the system met all TOC removal requirements set by IEPA.					
Unregulated Contaminants						
Sulfate (ppm) *Erosion of naturally occurring deposits*	N/A	N/A	26.3	26.2 - 26.3		
Sodium (ppm) *Erosion of naturally occurring deposits; Used as water softner*	N/A	N/A	8.05	7.61 - 8.05		
State Regulated Contaminants						
Fluoride (ppm) *Water additive which promotes strong teeth*	4	4	0.75	0.59 - 0.75		
Radioactive Contaminants						
Combined Radium (226/228) (pCi/L) *Decay of natural and man-made deposits*	0	5	0.84	0.50 - 0.84		02-11-2014
Gross Alpha excluding radon and uranium (pCi/L) *Decay of natural and man-made deposits*	0	15	6.6	6.1 - 6.6		02-11-2014

Water Quality Data Table Footnotes

TURBIDITY

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

SODIUM

There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

UNREGULATED CONTAMINANTS:

A maximum contaminant level (MCL) for this contaminant has not been established by either state of federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

FLUORIDE

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 mg/l to 1.2 mg/l.

VILLAGE OF HARWOOD HEIGHTS

Frequently asked questions

What causes the "musty" taste and odor in drinking water?

The earthy, musty taste and odor of the drinking water is the result of compounds produced by blue-grass algae and other vegetation found in Lake Michigan. Taste and odors may be more noticeable when the lake water gets warmer. Refrigerating the water will minimize the taste and odors. The presence of taste and odors does not affect the safety of the drinking water.

What if my water has a strong chlorine smell?

At times, especially during the summer, the chlorine smell may appear stronger than what is experienced at other times of the year because compounds are released from warm water more easily. Refrigerating the water will minimize the chlorine smell.

Why is the water sometimes cloudy?

Increased levels of dissolved oxygen in colder water causes this to happen. During the winter months, water may appear "cloudy" when drawn from the tap. The water will clear from the bottom up as it warms.

What is the cause for low water pressure?

Frequently, low pressure is due to plumbing problems in the home. A few simple checkpoints may solve the problem. Make sure all water valves are fully open and operational and clean all faucet aerators.

Water: The Pure Facts

- Water constitutes 40% of the reported daily beverage consumption in the United States.
- You can survive about a month without food, but only 5 to 7 days without water.
- The average five minute shower uses between 15 to 25 gallons of water.
- A 5/8 garden hose can carry more than 1,000 gallons per hour.
- One gallon of water weighs 8.34 pounds.
- There are 7.48 gallons of water in 1 cubic foot.
- The Village of Harwood Heights pumped over 297 million gallons of water last year.

Copies of this report are available at the Harwood Heights Village Hall, Eisenhower Public Library and Harwood Heights Website @ www.harwoodheights.org.

Should you have any questions or concerns about this report, please contact the Harwood Heights Water Department.

Dave Koch, Water Commissioner

@ (708) 867-7200

APPENDIX 24

Compliance Documentation –
Public Participation and Involvement

Home
Village Information
Mayor's Message
Event Calendar
Meetings & Minutes
Board Meeting Agendas
FAQ / Help
Departments
Emergency & Health
Village Code
F.O.I.A. Form
Comp. Plan Update
Links & Resources
Recreation & Services
Bids and RFPs
Contact Us
Employment
Check Registers
Community Calendars
Public Safety Bulletin
Building Department
Business License
Real Estate Transfer Tax
Online Forms

Search

PRINTER FRIENDLY VERSION

Get Adobe Reader

General Information

Licenses and Fees

Vehicle Stickers must be displayed May 1st of each year. There will be a $10.00 late fee charge for stickers purchased on or after June 1st of each year.

The Vehicle Registration fees are:

- **Auto-Passenger Cars - $20.00**
- **RV's - $20.00**
  Age 65 and Over (one per household) - $2.00 Processing Fee
- **Motorcycle - $20.00**
- **B Truck - $50.00**
- **D Truck - $60.00**
- **F Truck - $80.00**
- **H Truck - $100.00**
- **J Truck - $120.00**
- **Over 28,000 Pounds - $140.00**
- **Trailers - $80.00**
- **Taxi/Livery - $60.00**
  Transfer Fee - $1.00
- **Late Fee After May 1st $10.00**

Dog & Cat Licenses: $2.00 - A copy of the animals rabies inoculation must be present at time of purchase. The maximum number of dogs or cats per household is 3.

Red Speed

The Village of Harwood Heights has a Red Speed camera located on Lawrence Avenue at Harlem Avenue. This intersection is a No Turn on Red. If you would like to view a violation you can visit the website at https://www.redlightviolations.com or if you have any questions please call 866 331 7728.

Safe Speed

The Village of Harwood Heights has a Camera located at Harlem and Foster. Please call 877 262 3318 with any questions.

Service Flag

- The Village of Harwood Heights Beautification Committee wants to show its respect and appreciation to our Armed Forces fighting in the War Against Terrorism by offering their families a Service Flag to exhibit.

  The Service Flag was first displayed in the front windows of homes during World War I to signify a son or husband serving in the Armed Forces. The flag quickly became known as the "son in service flag" with each blue star indicating one family member. During World War II, the Department of War issued specifications on the manufacture of the flag as well as guidelines indicating when and by whom the Service flag could be flown or the Service Lapel button could be worn (an example of the flag can be seen hanging in the window of Mrs. Ryan's house in the movie Saving Private Ryan).

The Service flag is authorized for display by Americans to honor their family members who are serving in the Armed Forces of the United States during ANY period of war or hostilities.

Keep America proud of our Armed Forces by participating in this custom to honor our servicemen and women and to recognize and acknowledge the risk their families face while their loved ones fight to protect our freedom!

Please join us in reviving this almost forgotten tradition by displaying the flag, wearing the button, or telling your friends that have family members serving in the Armed Forces.

Harwood Heights residents having family members protecting our freedoms may request this Service Flag by calling the Harwood Heights Village Hall at 867-7200.

Freedom Of Information Act

In 1984, the Illinois General Assembly enacted the Illinois Freedom of Information Act. The Act states that "all persons are entitled to full and complete information regarding the affairs of government and the official acts and policies of those who represent them as public officials and public employees..."

WHAT DOCUMENTS ARE AVAILABLE?
Some examples of the records available under the Act are: policy statements, ordinances, reports or studies, public contracts, the names, titles and salaries of public employees, and the voting records of all public bodies.

COST
The Act allows public bodies to charge reasonable fees to pay for copying costs. Public bodies may waive the fees if disclosure is in the public interest.

WHERE AND HOW CAN I OBTAIN THIS INFORMATION?
You can request to view or obtain copies of public records by seeing the Village Clerk at the Harwood Heights Village Hall, 7300 W. Wilson Avenue, Harwood Heights, Illinois 60706. Certain Police Department records can be obtained through this act at the Police Department. A form is available for you to complete and sign.

THE PUBLIC BODY'S RESPONSE
A public body has five working days to respond after it received a written request for information under the Act. A public body may inform you in writing that it requires an additional 5 days to respond to a request for several reasons. The public body is required to disclose all records responsive to your request unless it can properly invoke an exemption provided in the Act. It is their responsibility to show the records are entitled to be exempt from disclosure.

DENIALS
A denial must be in writing, and must include the names and titles of everyone responsible for the denial. It must also give the reasons for denial. The denial must also include notice of your right to appeal the denial.

APPEAL
If you are denied access to information, you may appeal to the head of the public body. A letter to the head of the public body will start the process. Within 5 working days, the head of the public body must review the requested record, determine whether denial is proper under the Act and notify you of the determination.

If the head of the public body also denies you access, you may go to court for access to the records.

To read the Freedom of Information Act you can access it online at the Illinois General Assembly website.

You may print out a copy of the Freedom of Information Act form by going to the side navigation called FOIA Form on the Village's main page. To view the form and print it out you will need the Adobe reader which you can obtain for free at:

Early Warning System

The Village of Harwood Heights is connected with Norridge and Norwood Park Township with an early warning system. This system is used to warn the residents of impending disasters such as tornados as well as other natural disasters and Civil Defense emergencies.

At 10:00 AM on the first Tuesday of each month the system is tested. If you should hear the warning at any other time please listen for instructions that will be broadcast over the system.

You can learn more about protecting yourself in the event of a disaster by going to the Cook County Sheriff Emergency Management Agency.

Village Bus

Need help getting out of the house for errands and appointments? Give our Village bus driver a call at (708) 280-7203 to be picked up.

Our bus can take you to where you want to go within the Village as well as the following areas outside the Village:

- Harlem & Irving Plaza
- Norridge Commons
- Harlem & Foster Plaza
- Norwood Park Township
- Kmart
- Walgreens
- Senior Assistance Center

Hours: Tuesday, Wednesday, Thursday, Friday from 9 to 2 (Returns only until 3)

Sunday from 7 to Noon

PACE also offers curb to curb transportation for disabled residents. Click here to learn more.

Refuse and Recycling

In keeping with the Village's desire to help the environment we have an ongoing curbside recycling program. If you have any questions or need an additional cart please call Republic Services at (847) 981- 0091.

ALL RECYCLING MATERIALS MAY BE COMMINGLED A VILLAGE ISSUED RECYCLING CART

- Aluminum Cans, Trays & Foil (trays & foil must be cleaned)

- Steel Cans & Tins
- Aseptic Packaging & Gable Top Containers (milk & juice cartons)
- Glass Bottles and Jars - (clear, brown, green), no window glass, dinnerware or ceramics
- PET Soda, Water, & Flavored Beverage Bottles (#1 clear and green plastic resin)
- HDPE Milk & Juice Jugs (#2 clear plastic resin)
- HDPE Detergent & Fabric Softener Containers (#2 colored plastic resin)
- PVC Narrow Neck Containers Only (#3 plastic resin): such as health & beauty aid products, household cleaners
- LDPE Grocery Containers (#4 plastic resin): such as margarine tubs, frozen desert cups, six and twelve pack rings.
- PP Grocery Containers (#5 plastic resin): such as yogurt cups, and narrow neck syrup and ketchup bottles
- #7 APlastic Resin Narrow Neck Containers Only
- Plastic Buckets, such as kitty litter containers (5 gallon size maximum) no metal handles.

Notes:

1. All containers to be emptied and rinsed clean
2. No motor oil, insecticide, herbicide or hazardous chemical containers
3. Plastic bags should be returned to the grocery or department store
4. No plastic film (no plastic sheets, tarps or wrap)
5. Expanded foam and clear polystyrene not accepted per joint advisory from the Illinois Recycling Association, Illinois Department of Commerce & Community Affairs, and Region 5 US Environmental Protection Agency

PAPER FIBER:

- Newspaper, including inserts (remove plastic sleeves)
- Cardboard (no waxed cardboard)
- Kraft (brown paper) bags
- Magazines, Catalogs and Telephone Books
- Office, Computer, Notebook & Gift Wrap Paper (no metal clips, spirals, binders)
- Chipboard (cereal, cake & food mix boxes, shoe boxes etc)
- Carrier Stock (soda & beer can carrying cases)
- Junk Mail & Envelopes (no plastic cards, stick on labels or unused stamps)
- Paper Back Books (no hard cover books)

Yard Waste

Yard waste is to be set out for pick-up in either a paper yard waste bag or in a 30-35 gallon plastic garbage container marked "Yard Waste." In the case of brush it is to be bundled not larger than 50 lbs., or longer than 5 feet in length. All grass clippings, garden waste, tree trimmings and leaves that are properly set out will be taken on garbage day. Whole trees, stumps, sod, dirt, rocks, and tree limbs over 2" in diameter will not be taken. Yard waste produced by a landscaper will not be taken. Yard-waste service runs from April 1 through November 30.

It is against Village Ordinance 50.55 to sweep, rake or place leaves in the gutter for pickup by the street sweeper. Violators may be cited for violating this ordinance.

Refuse

Containers

Garbage must be placed in a Village issued plastic garbage cart.

Burning of Refuse

The burning of refuse which includes leaves, yard waste, rubbish and any other form of garbage or waste material is prohibited.

Large Objects

Public Works cannot pick up large items that you throw away such as rugs, washers, dryers, or furniture. If you need these items disposed of you need to contact the Village's Waste Removal company.

Street Sweeping & Snow Removal

Street Sweeping runs from April 1 to November 30. Please make sure you obey the street sweeping signs prohibiting parking from 8 AM to 4 PM so the street can be cleaned properly.

After 2" of snow no parking on even side of the street on even dates and no parking on odd side of the street on odd dates between the hours of 8 a.m. and 4 p.m. Vehicles in violation will be subject to ticket and tow. We have instituted a Snow Removal Hot Line that will let residence know if the ban is in effect. You can call 867-7605 to reach this hot line number. All residents will be receiving a flyer that contains additional information and Frequently Asked Questions that should help you.

Watering Restrictions

The times where lawn watering is allowed are between 6 a.m. and 10 a.m. then again between 6 p.m. and 10 p.m.. For newly sodded or seeded lawns please contact the Village Hall at 708-867-7200 for additional information.

Senate & Congressional Information

U. S. Senators

- Richard Durbin (D)
  WASHINGTON, D.C.
  711 Hart Senate Bldg.
  Washington, DC 20510
  9 am to 6 pm ET
  (202) 224-2152 - phone
  (202) 228-0400 - fax

  CHICAGO
  230 S Dearborn St.
  Suite 3892
  Chicago, IL 60604
  8:30 am to 5 pm
  (312) 353-4952 - phone
  (312) 353-0150 - fax

  SPRINGFIELD
  525 South 8th St.
  Springfield, IL 62703
  8:30 am to 5 pm
  (217) 492-4062 - phone
  (217) 492-4382 - fax

- Mark Kirk
  Washington, DC
  524 Hart Senate Office Building
  Washington DC, 20510
  Phone: 202-224-2854
  Fax: 202-228-4611

  Chicago
  230 South Dearborn
  Suite 3900
  Chicago, IL 60604
  Phone: 312-886-3506
  Fax: 312-886-2117

  Springfield
  607 East Adams
  Suite 1520
  Springfield, IL 62701
  Phone: 217-492-5089
  Fax: 217-492-5099

Cook County Commissioner

- Peter N. Silversti, 9th District
  District Office: 5515 N East River Rd, Chicago IL 60656
  Cook County Building: 118 N Clark St Suite 567, Chicago IL 60602
  (773) 444-0346

- **State Representative**
  Robert Martwick, 19th District
  Location:
  5433 N. Milwaukee Ave.
  Chicago, IL 60630

  Phone:
  (773) 286-1115

- Michael P. McAuliffee, 20th District
  Springfield Office:
  218-N Stratton Office Building
  Springfield, IL 62706
  217-782-8182 (phone)
  217-558-1073 (fax)

  District Office:
  5515 N. East River Rd.
  Chicago, IL 60656
  773-444-0611 (phone)
  773-444-0711 (fax)

- **State Senator**
  John Mulroe , 10th District
  Springfield Office:
  Senator 10th District
  127 Capitol Building
  Springfield, IL 62706
  (217) 782-1035
  (217) 782-2331 FAX

  District Office:
  6107 B North Northwest Highway
  Chicago, IL 60631
  (773) 763-3810
  (773) 763-3881 FAX

  U S Congressman
  Mike Quigley
  3742 West Irving Park Road
  Chicago, IL 60618
  Phone: (773) 267-5926
  Fax: (773) 267-6583

Elementary, High School, and College Districts

Elementary Schools

- District 79 - Pennoyer (708) 456-9094
- District 80 - Giles (708) 453-4847
- District 86 - Union Ridge (708) 867-5822

High School

- District 207 - Main South (847) 825-7711
- District 234 - Ridgewood (708) 456-5880

College

- District 504 - Triton Junior College
  (708) 456-0300

Libraries

- Eisenhower Public Library

Union Ridge School

Flag Etiquette

The proper display of our flag is part of the United States Code (Title 36, United States Code (USC), Chapter 10 as amended by Public Law 344, 94th Congress Approved July 7, 1976). The following web sites will supply you with some wonderful information about our great flag and how to display it.

- The United States Code gives the actual code with illustrations to show how the flag is to be displayed.
- The Flag of the United States This site gives a wealth of information about our flag including its history, flag etiquette, and Frequently Asked Questions about the flag.
- The Home of Heroes site also supplies a good deal of information about the flag and its proper display

VILLAGE OF HARWOOD HEIGHTS
7300 W. Wilson
Harwood Heights, Il. 60706

Office - 708-867-7200
Fax - 708-867-3038

APPENDIX 25

Compliance Documentation –
Illicit Discharge Detection Elimination System

Article 3. - Prohibited Uses

13.08.110 - Discharge into storm sewers.

No person shall make connection to a storm sewer for the purpose of discharging sanitary or industrial wastewater. Specifically, no firm, corporation or entity shall discharge any sanitary waste or industrial waste water into any storm sewer or drainage facility constructed as part of the Illinois Route 43 Improvement, the limits of the improvement being between Cullom Avenue and Illinois Route 72, a portion of which passes through the village.

(Ord. 00-21 § 1; prior code § 51.25)

13.08.120 - Permitting storm or surface water to drain into public sanitary sewer prohibited.

A. No storm or surface water from any house shall be permitted to drain into the public sanitary sewer.
B. As used in this section, the term "house" shall also include any store building, apartment building or any other principal structure upon any parcel of land.

(Prior code § 51.26)

13.08.130 - Discharge into certain sewer prohibited.

It is unlawful for any person to discharge or cause the discharge of any sanitary and industrial wastewater into the storm sewer system being constructed by the department of public works and buildings of the state of Illinois along and upon Harlem Avenue from seven hundred sixty-seven and one-half (767½) feet south of the center line of Lawrence Avenue to five hundred twenty (520) feet north of the center line of Gunnison Street.

(Prior code § 51.27)

13.08.140 - Prohibited discharges into sewers.

No person shall place or discharge or cause to be placed or discharged into any sewer any rubbish, trash, yard waste, effluent or any other matter or material of any kind whatsoever except as expressly allowed by this chapter.

(Prior code § 51.28)

APPENDIX 26

Compliance Documentation – Construction Runoff Control

ARTICLE 4: EROSION AND SEDIMENT CONTROL

Introduction

Controlling **erosion** and **sedimentation** during construction activities is critical in preventing negative impacts to water quality and local drainage systems. **Development** activities involving earth work, such as clearing, grubbing, grading, filling, and installing utilities, remove existing protective vegetative cover and expose soils to excessive **erosion**. The rate of **erosion** dramatically and unnaturally increases when soils are left unprotected during **development** or construction activities. Unprotected **sites** can erode at a rate in excess of one hundred times the natural rate of **erosion**. As shown in Figure 4.1, **sediment** can be carried from the project **site** in **stormwater runoff**, which results in the accumulation of **sediment** in **storm sewers**, **waterways**, **detention facilities** and other drainage features.

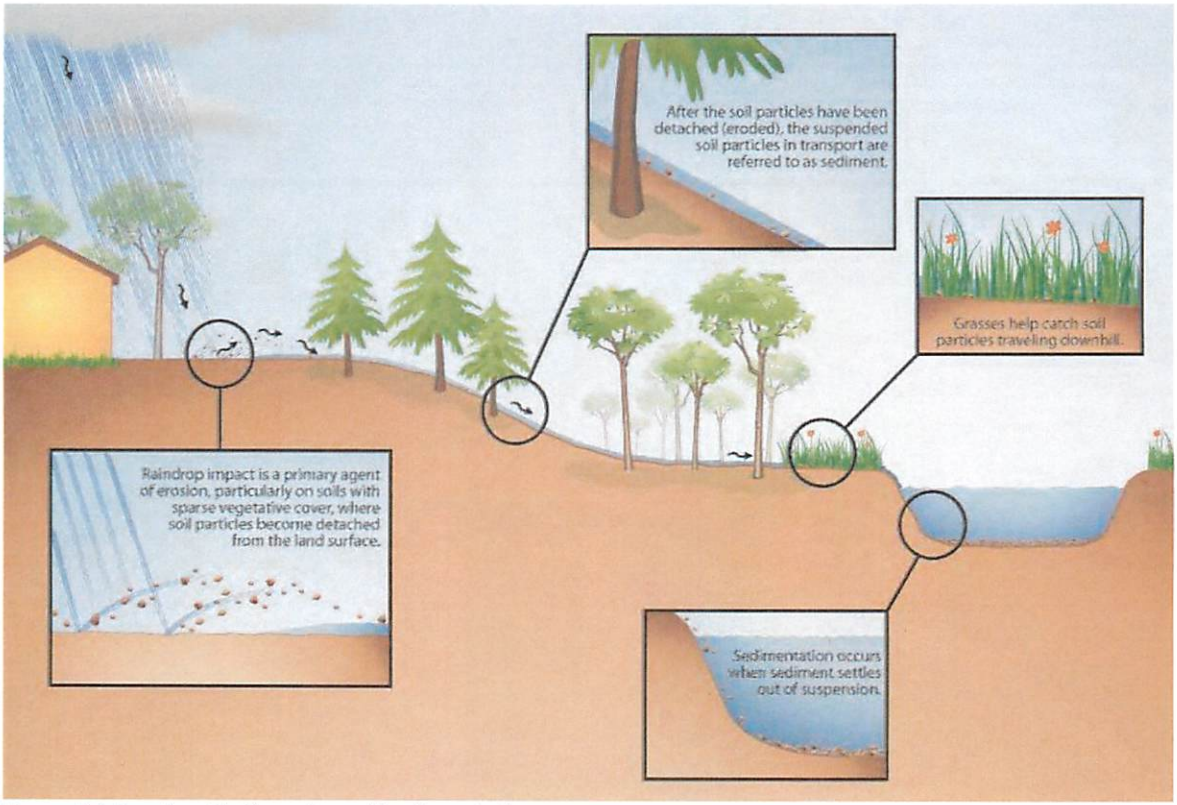


Figure 4.1 Erosion, Sediment, and Sedimentation

The accumulation of **sediment** reduces **stormwater** conveyance and the storage functions of streams, **wetlands**, **storm sewers, detention basins**, highway drainage ditches, **floodplains**, and navigable water channels. These impacts can result in more frequent and/or severe **flooding**. **Sedimentation** can also impact the storage capacity of municipal and industrial water supply reservoirs and increase costs due to the need to filter muddy water in preparation for domestic

Note: All bold terms contained in this document are defined terms in the WMO. Refer to Appendix A of the WMO or the TGM for the definition of each bold term.

or industrial use. It is also expensive to remove **sediment** from **storm sewers, detention facilities**, and other drainage systems. Excessive **sediment** in water bodies can be detrimental to aquatic life since it interferes with respiration, growth, reproduction, oxygen exchange and photosynthesis in plants.

Due to the many adverse environmental and economic impacts that result from **sedimentation**, the **Watershed Management Ordinance** (WMO) requires soil **erosion and sediment control practices** for all **development**. The purpose of these practices is to minimize and prevent pollution impacts during the construction phase of **development**. These practices are often referred to as Best Management Practices (BMPs). BMPs are measures that can be done on a small scale (individual **development sites**) that, in the aggregate, are designed to address the large scale objective of improving water quality throughout the **watershed**.

WMO Erosion and Sediment Control Requirements

The WMO requires all **developments**, regardless of size, to install and maintain soil **erosion** and **sediment** control measures during construction to prevent and/or reduce the **sediment** in **stormwater runoff** leaving the **site**. The **erosion** and **sediment** control requirements in the WMO are generally based on the general **National Pollutant Discharge Elimination System (NPDES)** Permit for **Stormwater** Discharges from Construction **Site** Activities (General **NPDES** Permit ILR-10). All **developments** that are equal to or greater than one acre in size must comply with the **Illinois Environmental Protection Agency (IEPA) NPDES** requirements for construction activities. For those **developments** located in a **combined sewer area**, if all **site stormwater** discharges, including construction dewatering, drain to a **combined sewer system**, ILR-10 permit coverage is <u>not</u> required.

The WMO requires **erosion and sediment control practices** on all **development sites**, regardless of the acreage of land disturbance or if it is located in a **combined** or **separate sewer area**. The WMO requires an **Erosion** and **Sediment** Control Plan to be prepared and submitted on all **development** projects requiring a **Watershed Management Permit** (§301.7). With every **Watershed Management Permit** application, a completed Schedule P form must be included with the submittal.

Although **erosion and sediment control practices** are required for every **development** regulated under the WMO, Schedule P is not required for certain types of **development**, including:

- Utility trenches not in **flood protection areas**;
- Projects undertaken solely by the **District**; and
- **Development** activities listed in WMO §201.1 that are undertaken solely by state or federal agencies (**IDOT**, Illinois Tollway Authority, **Corps**, etc.).

The WMO provides requirements for:

1. Temporary **erosion** control (§401);
2. Temporary **sediment** control (§402);
3. Construction **site** management (§403); and
4. Permanent **stabilization** (§404).

The **erosion and sediment control practices**, design criteria, and specifications in the WMO are generally based on the ***Illinois Urban Manual***. The ***Illinois Urban Manual***, which was originally developed by the US Department of Agriculture (USDA) – **Natural Resources Conservation Service** (**NRCS**), is considered to be the foremost resource for the selection and design of soil **erosion** and **sediment** control measures. When criteria and specifications are not provided in the ***Illinois Urban Manual***, the design criteria and specifications provided in the **TGM** shall be used (§400.6). In circumstances where other **erosion and sediment control practices** that are equally effective as those in the ***Illinois Urban Manual*** or those included in the **TGM** are to be used, prior written approval must be obtained from the **District** (§400.7).

A copy of the ***Illinois Urban Manual*** is available on-line through the Association of Illinois Soil and Water Conservation **District**s (AISWCD) website at: http://www.aiswcd.org/IUM/.

All standard drawings from the ***Illinois Urban Manual*** are available for download in pdf, dxf, dwf, and dwg file formats at: http://aiswcd.org/IUM/listdraw.html.

In addition, standard **erosion** and **sediment** control notes are available on-line through the **US Army Corps of Engineers** (**Corps**) website at:
http://www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/SESCrec.pdf

The WMO requires that for all **developments** discharging directly to **Jurisdictional Waters of the US**, the hydraulic and hydrologic design of the **erosion** and **sediment** control plan shall be designed for a **storm event** equal to or greater than a 25-year, 24-hour **storm event** (§400.4).

It should be understood that **development sites** have unique **stormwater runoff** situations and that the application of **erosion and sediment control practices** vary from **site** to **site**. Each type of **erosion and sediment control practice** has certain limitations based on the **drainage area** served, available land space, cost, and pollutant removal efficiency in addition to a variety of **site**-specific factors such as soil types, slopes, and depth of **groundwater** table. Careful consideration of these factors is necessary in order to select the appropriate **erosion and sediment control practice**. As stated in §400.3, all **developments** must address **erosion** and **sediment** control and the following:

1. Incorporate **erosion and sediment control practices** into the initial **site** plan;

2. Place a primary emphasis on **erosion control practices** that minimize **erosion**; and

3. Place a secondary emphasis on **sediment control practices** that contain eroded soil after it is in transport.

DEVELOPMENT OF AN EROSION AND SEDIMENT CONTROL PLAN

As part of the WMO submittal requirements, applicants need to develop an **erosion** and **sediment** control plan (§302.2). The ***Illinois Urban Manual***, Section 3, outlines a nine-step planning process recommended for the **development** of an **erosion** and **sediment** control plan and provides a list of pre-planning activities. At a minimum, **site erosion** and **sediment** controls and overall **site** management should conform to the following:

1. Control **stormwater** volume within the **site** to minimize soil **erosion**;

2. Control **stormwater** discharges, including both peak flowrates and total **stormwater** volume, to minimize **erosion** at outlets and to minimize downstream channel and stream bank **erosion**;

3. Minimize the amount of soil exposed during construction activity;

4. Minimize the disturbance of steep slopes;

5. Minimize **sediment** discharges from the **site**;

6. Address factors such as the amount, frequency, intensity, and duration of precipitation, the nature of resulting **stormwater runoff**, and soil characteristics, including the range of soil particle sizes expected to be present onsite;

7. Provide and maintain natural buffers around surface waters, direct **stormwater** to vegetated areas to increase **sediment** removal and maximize **stormwater** infiltration (unless infeasible); and

8. Minimize soil compaction and unless infeasible, preserve topsoil

For purposes of the WMO, an **erosion** and **sediment** control plan must describe all measures appropriate for the **development** such that all the requirements of Article 4 are met. In addition, the **erosion** and **sediment** control plan should put emphasis on avoiding sensitive areas and minimizing the amount and duration of soil exposed to **erosion** by wind, rain, **runoff** and vehicle tracking. Effective planning includes the **development** of a schedule for implementing appropriate **erosion control practices**, **sediment control practices**, and construction **site** management practices that control pollution generated from construction activities.

The plan sheet(s) require the associated details and staging construction plans, where

applicable. Some **sites** may require unique details to describe **site**-specific **erosion control practices** and **sediment control practices** and applications. Typically, a **site** grading plan will be utilized as the base for the **erosion** and **sediment** control plan sheet(s) as it is necessary to locate limits of **disturbed areas** and discharge points when designing the **erosion** and **sediment** control plan sheet(s).

The **erosion** and **sediment** control plan sheet(s) apply to all areas that are directly related to the project's construction activity, including but not limited to staging areas, storage yards, material borrow areas, storage areas, and access roads. The **erosion** and **sediment** control plan must provide controls for existing, interim, and proposed conditions. Also, the **erosion** and **sediment** control plan sheet(s) must ultimately reflect the contractor's phasing and/or construction staging, and must address the entire scope of the contract work.

Components of Erosion and Sediment Control Plan

As described in §302.2, the **erosion** and **sediment** control plan shall include the following:

1. "A narrative description of the existing land cover, hydrologic conditions of the proposed **development**, upstream **tributary area** and areas adjacent to the **development** including a description of any **Flood Protection Areas**, **site** discharge location(s), points of discharge to **Jurisdictional Waters of the U.S.**, and soil survey data." (§302.2A)

   This paragraph(s) narrative should include a discussion of the existing conditions of both the **development** and the areas adjacent to the **development** that can be impacted by **erosion** or **sedimentation**. Soil data for the county can be obtained on-line through the **NRCS** at: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

   It is recognized that soil data may not be available for some areas of **Cook County**. If data is not available, then it should be noted in the narrative.

2. "The **NPDES** ILR-10 permit number issued by **Illinois Environmental Protection Agency** (**IEPA**) to the applicant upon submittal of the ILR-10 Notice of Intent permit application or permit." (§302.2B)

   After the application has been submitted and reviewed by **IEPA** for completeness, an identifying ILR-10 number is assigned to the permit application and the Notice of Intent (NOI) will be published to the NOI page(s) of **IEPA's** website. The NOI and identifying ILR-10 permit number should be noted on the Schedule P form.

3. "A narrative description of the proposed temporary **erosion and sediment control practices**, including a narrative describing how **Flood Protection Areas** will be protected from **erosion** and **sedimentation**." (§302.2C)

   This narrative should include a description of the temporary **erosion control practices**, the temporary **sediment control practices** selected for the **development**, and how

these practices will be used to protect **Flood Protection Areas**.

4. "A schedule of construction activities including, but not limited to, clearing and grading, installation of **stabilized** construction entrances, **erosion and sediment control practice** implementation, disposal of construction waste, stockpiling, and inspection and **maintenance** of all **erosion and sediment control practices**." (§302.2D)

   The schedule should allow adjustments in implementation of **erosion and sediment control practices** based on factors such as potential weather and the pace of work progress. The schedule should provide for the monitoring of weather forecasts for rainfall and adjust installation of **erosion and sediment control practices** prior to predicted rainfall events or dry-spells. The schedule should incorporate staged seeding and re-vegetation of graded slopes as work progresses.

   Apply permanent **erosion** control to areas deemed substantially complete during the project's defined seeding window. The schedule should include a monitoring program consisting of regular inspection of **erosion and sediment control practices** to ensure proper installation, **maintenance**, and performance of implemented **structures** and procedures. Objectives and **maintenance** schedules should be adjusted based on the results of monitoring and changes in construction plans.

5. "Data and calculations used to size, locate, design, and maintain all **erosion and sediment control practices**, and the design of temporary stream crossings." (§302.2F)

   All calculations, data, and assumptions used for the sizing and placement of **erosion and sediment control practices** should be included in the plan. This information should demonstrate how the proposed **erosion and sediment control practices** have been designed in compliance with the regulations in the WMO and/or **NPDES** ILR-10 permit.

6. "A mechanism for ensuring that the **erosion** and **sediment** control installation and **maintenance** requirements for both temporary and permanent measures will be met, including the list of **maintenance** tasks and performance schedules that have been identified and/or required in the plan sheet(s) and specifications." (§302.2G)

   In accordance with ILR-10, onsite inspections must be completed regularly and also after **storm events** that result in 0.5 inches or more rainfall. An assessment should be made on whether the onsite soil **erosion and sediment control practices** are performing properly, as compared to the specifications contained in the plans and/or ***Illinois Urban Manual***. Any **maintenance** that is required should also be identified as part of this process. Additional guidance on **maintenance** of soil **erosion** and **sediment** controls is provided in Article 9 of the **TGM**.

General NPDES Permit ILR-10 Requirements

The goal of General **NPDES** Permit ILR-10 is to protect the quality and beneficial uses of the State's surface water resources from polluted **stormwater runoff** and from non-**stormwater**

discharges associated with construction activities. To achieve this goal, the ILR-10 requires **permittees** to plan and implement appropriate pollution prevention and control practices for **stormwater runoff** and non-**stormwater** discharges throughout construction. These BMPs are aimed at reducing **erosion**, controlling **sediment** transport, implementing good housekeeping practices, and minimizing pollutant discharges. As stated previously in this article, for those **developments** located in a **combined sewer area**, if all **site stormwater** discharges, including construction dewatering, drain to a **combined sewer system**, ILR-10 permit coverage is not required.

A copy of General **NPDES** Permit ILR-10 is Available at:
http://www.epa.state.il.us/water/permits/storm-water/construction.html

Notice of Intent

To receive authorization under the ILR-10 Permit, a discharge must either be covered by a valid Illinois General **NPDES** Construction **Site** Permit, or a completed Notice of Intent (NOI) in accordance with Part II (NOI Requirements) and Part VI.G (Signatory Requirements) of the ILR-10 Permit. The NOI must be submitted in sufficient time to allow a 30 day review period after receipt of the NOI by **IEPA** and the **start of construction**. Dischargers who fail to notify the **IEPA** of their intent to be covered, and discharge **stormwater** associated with construction **site** activity to Waters of the State without an **NPDES** permit, are in violation of the Environmental Protection Act and the Clean Water Act.

Construction activities that are operating under approved local **sediment** and **erosion** control plans, land disturbance permits, grading plans, or **stormwater** management plans, shall also submit signed copies of the NOI to the local agency approving such plans in accordance with the deadlines set forth in Part II.A of the ILR-10 permit. A copy of the NOI shall be sent to the entity holding an active General **NPDES** Permit No. ILR-40 if the project is located in an area covered by an active ILR-40 permit.

Additional NOI guidance is available on-line through the **IEPA** at:
http://www.epa.state.il.us/water/permits/storm-water/construction.html

Storm Water Pollution Prevention Plan (SWPPP)

A SWPPP is required for **developments** that will result in the disturbance of one or more acres of total land area, or for a **development** less than one acre of total land that is part of a larger common plan of **development** or sale, if the larger common plan will ultimately disturb one or more acres of total land area. The SWPPP is an integral part of the **IEPA**'s ILR-10 permit program, and plays a crucial role in minimizing the pollution of **stormwater runoff** from construction **sites**. A properly prepared and implemented SWPPP assists permitees with meeting **stormwater** pollution prevention goals. The **erosion** and **sediment** control plan alone should not be considered a SWPPP, rather one component of the **site** specific SWPPP.

The US Environmental Protection Agency (EPA) has published a guide to developing SWPPPs for

construction **sites**. The guide is available on-line at:
http://www.epa.gov/npdes/pubs/sw_swppp_guide.pdf

An example SWPPP for a small (5-acre) construction **site** is available in pdf form on-line at: http://www.epa.gov/npdes/pubs/exampleswppp_smallcommercial.pdf.

An example SWPPP for a medium-sized (20-acre) construction **site** is available in pdf form on-line at: http://www.epa.gov/npdes/pubs/exampleswppp_residential.pdf.

Inspections

In accordance with the WMO (§1000.4), inspections must be performed to verify that the **development** is in compliance with the soil **erosion** and **sediment** control requirements of the WMO. An initial inspection of soil **erosion** and **sediment** control measures should occur after mobilization and installation of initial **erosion and sediment control practices**, prior to any soil disturbance (§1000.4A).

In accordance with ILR-10 regulations, inspections must be conducted at least once every seven calendar days and within 24 hours of the end of a storm, or by the end of the following business or work day, that is 0.5 inches or greater.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Inspections must commence when construction activities are conducted, if there is a 0.5 inches or greater rain event, or if discharge due to snowmelt occurs.

An assessment should be made and documented in a report on whether the soil **erosion and sediment control practices** are performing properly, as compared to the specifications contained in the plans and/or ***Illinois Urban Manual***. All remedial actions taken to repair or install soil **erosion** and **sediment** controls should be completed within 7 days of their discovery, unless the repair or installation is resulting in a pollutant discharge, in which the remedial action must occur immediately. For additional guidance on inspections, refer to Article 10 of the **TGM**.

TEMPORARY EROSION AND SEDIMENT CONTROL (§401 - §402)

Overview

Erosion and sediment control practices are techniques, measures or structural controls used for a given set of **site** conditions to manage the rate, quantity, and quality of **stormwater runoff** in a cost-effective manner. No single practice can address all pollutants associated with construction activities. Independently these practices serve different purposes. **Erosion** controls are preventative strategies that utilize techniques to stabilize the soil, thus minimizing the occurrence of **erosion**. **Sediment** controls are back up strategies that incorporate structural measures to contain **sediment** on **site** in the event that **erosion** does occur. While functionally different, these two forms of pollution control should be selected and implemented in a

complimentary manner in order to maximize pollution prevention effectiveness.

The selection process for temporary **erosion and sediment control practices** is an iterative process that first identifies potential pollutant sources and then identifies the measures necessary to reduce or eliminate pollutant discharges from the **site**. The nature and extent of the **erosion and sediment control practices** should be appropriate to address the specific conditions of the **site** and be properly maintained to ensure continued effective operation. For each aspect of construction, the placement of the necessary measures should be timed to optimize their effectiveness.

Temporary **erosion and sediment control practices** should reflect the features and limitations of the **development site** and adjacent properties. The following must be considered:

1. Seasonal, topographic, and **maintenance** limitations;
2. The susceptibility of soils to **erosion**;
3. Amount of tributary **drainage area**; and
4. Proximity to **Flood Protection Areas**.

Examples of seasonal, topographic, and **maintenance** limitations may include seeding windows, steep slopes, and accessibility. Available soil survey information and **site** investigation should be used to understand the potential susceptibility of **site erosion** of unprotected soils. Soil investigation should also include an understanding of infiltration capability, soil textural classes (percent sand, silt, and clay), as well as an understanding of the depth to seasonally high water table, bedrock, or other limiting layer. A description of these **site** soil features are required in the **development** of the volume control plan (§303), and can also facilitate the **development** of the temporary **erosion and sediment control practices**.

Avoiding Disturbance to Sensitive Areas

Construction schedules and planning should include all practicable measures to avoid disturbances to environmentally and culturally sensitive and regulated areas. Sensitive areas may include, but are not limited to, steep slopes, highly erodible soils, streams, stream buffers, specimen trees, and natural vegetation. Other sensitive areas include **Flood Protection Areas** (i.e., **floodplains**, **wetlands**, and **riparian environments**), threatened and endangered species habitat, historic preservation **sites**, and EPA 303(d) listed receiving waters. These areas provide numerous water quality and **flood** protection benefits and therefore require special management and protection in order to preserve their functions.

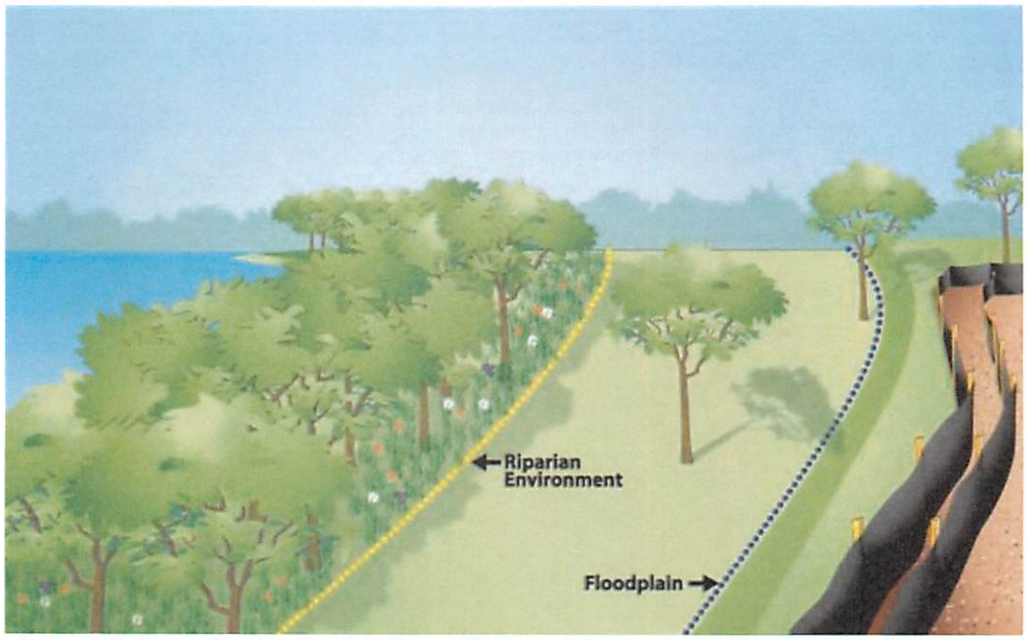


Figure 4.2 Example of a Double Row Silt Fence Protecting a Flood Protection Area

Flood Protection Areas

The WMO requires that soil stockpiles or other construction materials are not located within **Flood Protection Areas** (**FPAs**), and that they be protected by a minimum of a double-row **silt fence** or equivalent measure, as shown in Figure 4.2. Additional **erosion and sediment control practices** should be employed as necessary to protect **FPAs** from negative impacts associated with **development**. Stockpiles should never be placed within **FPAs** in order to prevent **sediment**-loading, impairment of ecological functions, and restriction of conveyance during **storm events**. The implementation of preventative measures prior to construction, such as the preservation of vegetated buffers, use of fencing and signage, and avoiding disturbances near **FPAs**, are some of the most effective means of protection.

Floodplains

Floodplains safely convey floodwaters and dissipate flows and velocities, subsequently reducing streambank **erosion** and protecting **structures** and people from the effects of **flooding**. Protection of **floodplain** corridors also promotes connectivity of habitat, which encourages the spread of native plants and wildlife.

Wetlands

Wetlands and **wetland buffers** are important **stormwater** management assets, where biogeochemical interactions cleanse surface and subsurface water of pollutants. Decreased flow velocities in **wetlands** allow **sediment** to settle out of suspension, and **wetland** vegetation provides the surface area and energy sources necessary for microorganisms to break down and immobilize pollutants. **Wetlands** also provide **stormwater** attenuation and volume reduction benefits by detaining surface waters, which alleviates **flooding**, promotes evapotranspiration, and allows recharge of **groundwater** aquifers. **Wetlands** can also offer protection from

erosion, sequester atmospheric carbon dioxide into organic soils, and provide plant and wildlife habitat.

Riparian Environments

Riparian environments provide ecosystem services in the form of streambank **stabilization**, interception and immobilization of **sediment**, sequestration of nutrients, metals, organic compounds, and other pollutants, and also enhancement of biodiversity in this transitional zone. **Riparian environments** also provide **stormwater** management benefits, since the vegetated and wooded areas adjacent to streams can reduce **flood** velocities and flowrates. These areas can also provide volume reduction benefits through infiltration in the vegetated areas.

TEMPORARY EROSION CONTROL REQUIREMENTS (§401)

Erosion control practices involve the **stabilization** of soil in order to alleviate raindrop impact, prevent sheet and rill **erosion**, prevent suspension of solids in **stormwater runoff**, and prevent dust due to wind **erosion**.

Temporary **erosion control practices** are **stabilization** measures including, but not limited to:

- Protection of existing vegetation;
- Establishment of new vegetation;
- Soil **stabilization** measures;
- Wind and dust control measures;
- **Stormwater** conveyance channels; and
- Velocity dissipation measures.

When selecting **erosion control practices**, it is important to consider both onsite and offsite conditions. All potential sources of **erosion** should be evaluated and optimal methods should be chosen based upon the combination of soil characteristics, topography, climate, existing resources, proposed construction activities, and proximity to **FPAs**. Preservation of existing vegetation should always be considered as a primary method of soil **stabilization**, due to present and future value for **erosion** protection, **sediment** control, wildlife habitat, landscape aesthetics, and economic value. Implementing preventative measures early in the project timeline can save cost and time during later phases by reducing the need for supplemental **stabilization** and **sediment** containment practices.

Erosion control practices should be removed as soon as practicable, but no longer than seven days after construction activities have temporarily or permanently ceased. As stated in the ILR-10 permit, this requirement may be waived if construction activity is scheduled to resume

within 14 days from when activities ceased.

A listing of ***Illinois Urban Manual*** drawings for recommended temporary **erosion** control measures is provided in Table 4-1.

Protection of Existing Vegetation and Site Soil Disturbance Activities

Vegetation can be an effective and economic method of soil **stabilization**. Vegetative cover protects soils from raindrop impacts, rill and sheet **erosion**, and wind **erosion**. Vegetation also provides a reduction in velocity, valuable filtration and adsorption of pollutants, and can reduce **runoff** volumes by enhancing infiltration. The WMO states that existing vegetation shall be preserved where practicable to minimize the area of soil disturbance (§401.1). The purpose of retaining existing vegetation is to temporarily preserve areas that have value for **erosion** control during the construction process.

Preservation of existing vegetation is also a simple way of maintaining **stabilized** soils in areas of the **site** where no construction activity is planned or will occur at a later stage, phase, or date.

In addition to preservation of existing vegetation, the following general guidelines relating to soil disturbing activities should also be followed:

1. Minimize the area of soil exposed to **erosion** at one time;

2. Schedule major grading operations for the non-rainy season when practicable and limiting soil disturbing activities during the rainy season; and

3. Sequence trenching activities so that most open portions are closed before new trenching begins. Also any trenches, holes, or other excavations required for utility installation should be protected at the end of each workday.

Establishment of New Vegetation

As stated above, vegetation can be an effective and economic method of soil **stabilization**. Similar to preservation of existing vegetation, establishing temporary or permanent vegetative cover on disturbed or exposed areas reduces **erosion** and creates a landscape that enhances soil permeability and the filtering of **runoff** pollutants.

Soil Stabilization

Soil **stabilization** measures are manufactured products that protect against raindrop impact and enhance vegetative establishment by retaining soil moisture, providing an insulating layer, preventing seed washout, controlling weedy species, and protecting seeds from wildlife consumption. These products include mulches, soil binders, **erosion** control blankets, and turf reinforcement mats, which provide effective and immediate **stabilization** of slopes and channels before, during, and after the establishment of vegetation.

Wind and Dust Control

The purpose of this practice is to prevent blowing and movement of dust from exposed soil surfaces, to reduce on and offsite damage, to minimize health hazards, and to improve traffic safety. This practice is applicable to areas subject to dust blowing and movement where on and offsite damage is likely without treatment.

Stormwater Conveyance Channels

Stormwater conveyance channels prevent **erosion** by redirecting potentially erosive flows or convey clean or **sediment** laden water from upstream **tributary areas** along a **stabilized** path and away from areas that have not yet been **stabilized**. These include diversion dikes, drainage swales, lined ditches, and slope drains. **Stormwater** conveyance channels are not suitable as **sediment**-trapping devices, and should be **stabilized** prior to use to prevent **erosion** of exposed soils.

Velocity Dissipation Measures

Velocity dissipation measures prevent **erosion** by slowing the velocity of concentrated flows at the **stormwater outfall**. These measures are to be employed wherever concentrated flows are conveyed at erosive velocities, such as in steep swales or at pipe outlets. These consist of an area or apron of rock, concrete rubble, or gabions placed at the outlet of a drainage system. Appropriate applications include, outlets carrying a continuous flow of water, outlets subject to short, intense flows, outlets to **sediment basins**, and points where lined channels discharge to unlined channels or natural **waterways**.

Erosion and Sediment Control for Construction Shutdown or Phased Projects

The WMO requires that temporary **erosion control practices** be maintained on a year-round basis during construction (§401.5). Temporary **erosion control practice** are required for any periods of construction shutdown until permanent **stabilization** is achieved (§401.5).

All open areas that are to remain idle throughout winter should be **stabilized** with temporary or permanent vegetation prior to the end of the fall growing season. Seeding should be performed during the appropriate season in order to ensure rapid establishment of vegetation. In the event that temporary or permanent re-vegetation cannot be established prior to winter shutdown, a backup **stabilization** and containment plan should be in place in order to implement additional **erosion** control measures, such as the installation of mulch or **erosion** control blankets on all exposed soil. **Sediment control practices**, such as perimeter **silt fence** and **storm sewer** inlet protection devices, should also be installed and maintained throughout the winter shutdown period.

Table 4-1. *Illinois Urban Manual* Drawings for Temporary Erosion Control Strategies

Temporary Erosion Control Strategy	*Illinois Urban Manual* Code
Protection of Existing Vegetation	
Tree and Forest Ecosystem Preservation	984
Establishment of New Vegetation	
Temporary Seeding	965
Permanent Vegetation	880
Sodding	925
Erosion Control Blanket	830
Mulching	875
Wind and Dust Control Measures	
Dust Control	825
Stormwater Conveyance Channels	
Diversion Dike	820
Temporary Diversion	955
Temporary Slope Drain	970
Temporary Swale	980
Temporary Pipe Diversion	676-PD
Velocity Dissipation Measures	
Rock Outlet Protection	910

For projects involving phased construction, within the portions of the **site** where construction activities will be temporarily ceased, **stabilization** practices must be completed within seven days unless construction activity is resumed on that portion of the **site** within 14 days (§401.6). The WMO allows for the instances where snow cover precludes the completion of the **stabilization** practices. In such cases, the **erosion control practices** must be completed as soon as practicable.

TEMPORARY SEDIMENT CONTROL REQUIREMENTS (§402)

Sediment-laden waters generated onsite should be routed through at least one **sediment control practice** prior to discharge (§402.3). These practices are designed to contain or filter **sediment**-laden **runoff** (eroded material) before it leaves the **site**. Most **sediment control practices** function by reducing flow velocity and turbulence of **sediment**-laden water, subsequently allowing **sediment** to settle out of suspension. In some instances, multiple **sediment control practices** will be necessary to protect against the discharge of suspended **sediment**. All **sediment control practices** should be installed in conjunction with **erosion control practices**, and therefore should not be utilized as stand-alone measures. A listing of

Illinois Urban Manual drawings for recommended temporary **sediment** control measures is provided in Table 4-2.

Sediment control practices must intercept all **runoff** from **disturbed areas** before **runoff** leaves the **site** (§402.5). When the **disturbed area** or areas constitute an area draining less than one acre, then the **disturbed area** must be protected by a minimum of a **silt fence** or equivalent. For a **silt fence** equivalent, refer to the following section, Perimeter Controls. Equivalent measures should be used only when approved by the **District**.

When the **disturbed area** or areas constitute an area draining more than one acre, then the **disturbed area** must be protected by a **silt fence** (or equivalent) and a **sediment basin** or equivalent. The **sediment basin** must be sized to intercept the 2-year, 24-hour **runoff** volume from the **tributary area**.

In all cases, it is important to consider measures that capture and contain **sediment** close to its source. **Sediment control practices** should always be integrated with **erosion control practices**, and should never be used as stand-alone methods of water quality protection.

Sediment control can be accomplished using the following general control mechanisms:

- Perimeter Controls: Vegetated buffers, **silt fences**, rolled barriers;
- Inlet Controls: Inlet filter bags, above grade inlet filters;
- Entrance/Exit Controls: **Stabilized** construction entrance/exit, tire wash stations;
- **Sedimentation** Controls: **Sediment** traps, **sediment basins**, flocculents;
- Instream **Sediment** Controls: Turbidity curtains, cofferdams; and/or
- Dewatering Operation Controls: Rim ditching, sock pipe/horizontal wells, well point systems, tank systems, and filtration.

Perimeter Controls

Perimeter controls are methods of containing **sediment** within the boundaries of the project **site**, or preventing offsite sources of **sediment** to enter the **site**. These practices prevent the discharge of **sediment** by filtering and dissipating the energy of **sediment** laden sheet flow **runoff**. All **site** characteristics should be considered when selecting appropriate perimeter control practices. Perimeter controls must be installed and functioning prior to soil disturbance (§402.3).

Inlet Controls

Inlet controls prevent the movement of **sediment** and other pollutants into the **storm sewer** network. All **site** and **storm sewer** characteristics should be considered when selecting an appropriate inlet control. Sheet flow draining to drop inlets may require different methods of

treatment than shallow concentrated flow draining to culvert inlets, so it is important to select an inlet control best suited to accommodate the expected velocity, shear stress, and **sediment** load of **site runoff**.

Entrance/Exit Controls

Entrance/Exit controls prevent offsite tracking of **sediment** at all points of construction ingress/egress where **sediment** can be tracked onto public roads. Any soil reaching a public or private roadway shall be removed immediately and transported to a controlled **sediment** disposal area.

Sedimentation Controls

Sedimentation controls utilize excavated or impounded areas to temporarily detain **sediment**-laden water to promote settling of suspended particles prior to discharge. The outlets of **sedimentation** controls should be **stabilized** (see Velocity Dissipation Measures) such that treated water does not become re-contaminated. Designs should allow for adequate retention time to ensure maximal **sedimentation** for the anticipated **sediment** loads. Pumping **sediment**-laden water into any **stormwater facility** that is not designated to be a **sediment** control measure, **sediment** trap, or **sediment basin** either directly or indirectly without filtration is prohibited.

Sediment traps should only be used for small disturbed soil areas draining less than one acre, and for treating coarse textured soils consisting of medium to large sized **sediment** particles (sands and coarse silts). If the contributing **drainage area** is greater than one acre, or **site** consists of finer textured soils, such as silts and clays, a **sediment basin** should be used. Basins are appropriate for large disturbed soil areas draining between one and ten acres, but are not appropriate for **drainage areas** greater than 75 acres.

Design of **sediment** traps and basins should provide enough storage to accommodate the settling process (live storage) in addition to the accumulated **sediment** (dead storage). Live storage volume should, at a minimum, accommodate the 2-year, 24-hour **runoff** volume for the **tributary area** to each **sediment** trap or basin. Dead storage should be sized to store the estimated **sediment** load generated from the **site** over the duration of the construction period and be below the permeable fill. The **sediment** load can be estimated by using the Revised Universal Soil Loss Equation (RUSLE). Total storage may consist of only live detention storage; however, a more frequent schedule for **sediment** removal will be required. The following example demonstrates how to calculate the 2-year, 24-hour **runoff** volume for an example **site**.

Example 4.1: Sediment Basin Sizing

This example demonstrates how to size a **sediment basin** for a 10-acre **site**. The WMO requires that the **sediment basin** be sized based on the 2-year, 24-hour **runoff** volume from the tributary **drainage area**. In this example, it is assumed that the entire project **site** (10 acres) is tributary to the **sediment basin**.

To calculate the **runoff** volume, the **NRCS runoff** equation is used, which is:

$$R = \frac{(P - 0.2S)^2}{(P + 0.8S)}$$

where,

R = **runoff** depth (in)
P = 2-year, 24-hour rainfall depth of 3.04 in (**Bulletin 70** Northeast Section)
S = potential maximum retention after **runoff** begins (in), and is calculated by:

$$S = \frac{1000}{CN} - 10$$

where,

CN = **runoff** curve number for the **tributary area**. A CN of 91 is used, assuming newly graded (bare soil) and C soils.

$$S = \frac{1000}{CN} - 10 = \frac{1000}{91} - 10 = 0.99 \text{ in}$$

Substituting the known values for P and S,

$$R = \frac{(3.04 - 0.2*0.99)^2}{(3.04 + 0.8*0.99)} = 2.11 \text{ in}$$

The volume of **runoff** (acre-feet), V, from the **tributary area**, A, can then be calculated by:

$$V = \frac{R}{12} \times \text{Area} = \frac{2.11 \text{ in}}{12 \text{ in/ft}} \times 10 \text{ ac} = 1.76 \text{ ac-ft}$$

Therefore, the required **sediment basin** volume is 1.76 acre-feet.

Instream Sediment Controls

These are methods of **sediment** containment when work must occur in or near **waterways.** Instream **sediment** controls are implemented to contain and prevent **sediment** loading of surface waters and subsequently protect **watershed** quality. All necessary permits (USACE, **FEMA, IEPA**, Section 401 and Section 404 permits, etc.) must be granted before installation can begin. Examples of instream **sediment** controls include turbidity curtains and cofferdams.

Dewatering Operation Controls

Dewatering operations remove and treat **groundwater** from an excavation area. These controls ensure safe working conditions, proper removal of contaminants, and appropriate discharge of **groundwater**. Dewatering operations include Filtration Systems, Pipe Socks,

Horizontal Wells, Well Point Systems, and Dewatering Tanks. Construction dewatering operations shall be designed and operated so that water discharged from a **site** will meet State of Illinois water quality standards, as set forth in Title 35, Subtitle C, Chapter I, Part 302, Subpart B, Illinois Administrative Code.

Table 4-2. *Illinois Urban Manual* Drawings for Temporary Sediment Control Strategies

Temporary Sediment Control Measure	*Illinois Urban Manual* Code
Perimeter Controls	
Silt Fence	920
Filter Strip	835
Permanent Vegetation	880
Sodding	925
Temporary Seeding	965
Tree and Forest Ecosystem Preservation	984
Inlet Controls	
Culvert Inlet Protection	808
Inlet Protection - Fabric Drop	860
Inlet Protection - Excavated Drain Plan	555
Inlet Protection - Paved Areas Curb Protection	561C
Inlet Protection - Paved Areas Drop-In Protection	561D
Inlet Protection - Fabric Drop Plan	560
Inlet Protection - Sod Filter Plan	562
Sedimentation Controls	
Rock Check Dam - Riprap	605R
Rock Check Dam	905
Temporary Sediment Trap	660
Sediment Basin Dewatering Device	615
Polyacrylamide for Temporary Soil Stabilization	893
Polyacrylamide for Turbidity Reduction and Sediment Control	894
Sedimentation Controls	
Ditch Check (Manufactured)	514PC,514RC,514SC,514UF, 514VC
Instream Controls	
Floating Silt Curtain	617A, 617B, 917
Cofferdam	803
Dewatering Operation Controls	
Dewatering	813
Portable Sediment Tank	895
Sump Pit	950

CONSTRUCTION SITE MANAGEMENT REQUIREMENTS (§403)

Construction **site** management practices are considered "good housekeeping" measures that are to be carried out throughout the duration of the project. These practices aim to reduce or eliminate the spread of pollutants by placing structural and/or procedural controls on activities that have the potential to pollute **stormwater runoff**. Emphasis is placed on preventing contact of **stormwater** with sources of pollutants. **Stabilized** construction entrances, proper management of soil stockpiles, and the proper installation of temporary stream crossings are all examples of construction **site** management controls. Good housekeeping can be accomplished using the following general control mechanisms:

- Material Handling and Waste Management: proper delivery, storage, and removal of construction materials and wastes;
- Spill Prevention and Control: **development** of a spill prevention and control plan;
- Equipment and Vehicle Use: designated fueling, cleaning, and **maintenance** areas;
- Street Sweeping and Vacuuming: timely removal of **sediment** tracked onto roadways;
- Allowable Non-**Stormwater** Discharge Management: prevention of contamination of these discharges from **stormwater**; and
- Stockpile Management: BMP implementation and proper location of piles.

One of the most useful tools for efficient construction **site** management is adequate signage. Legible signs should be placed throughout the construction **site** to identify vehicle wash and **maintenance** stations; designate solid, liquid, and hazardous waste storage locations; and convey any important notices concerning construction **site** management practices.

Temporary Stream Crossings

A temporary stream crossing is a culvert, ford, or bridge placed across a **waterway**, when frequent crossing cannot be avoided. Crossings are designed for short-term use (one year or less), allowing construction vehicles and heavy equipment to cross **waterways** while avoiding downstream **sedimentation** or damage to the channel morphology and ecosystem. All necessary permits (**Corps**, **FEMA**, **IEPA**, Section 401 and Section 404 permits, etc.) must be granted before installation can begin.

Temporary stream crossings should not cause **erosion** or damage due to increases in water surface profiles to adjacent properties. Disturbance or removal of vegetation should be limited to that which is necessary to complete construction, and when necessary, vegetation should be cut off no lower than ground level to promote re-growth. Riparian vegetation should be covered by a sufficient layer of clean river run cobble to prevent damage to underlying soil and root **structure**.

Temporary stream crossings used during construction should be designed to convey a two-year, 24-hour **flood** event without overtopping unless the **District** approves a more frequent design

event. In addition, the following conditions should be met:

- Temporary stream crossings should not reduce the carrying capacity of the channel;
- The entire crossing should be designed to withstand hydrodynamic, hydrostatic, and erosive forces up to the **base flood** event without washing out;
- Upon completion the temporary stream crossings should be entirely removed and the stream bed and banks restored to a stable non-erosive condition that incorporates native vegetation where appropriate; and
- **Erosion and sediment control practices** should be implemented and maintained during installation, **maintenance**, and removal of temporary stream crossings.

All **structures** should be inspected often, especially following **runoff**-producing rainfall, for any blockages in the channel and for **sediment** or debris buildup upstream or within the stream crossing **structure**.

A listing of ***Illinois Urban Manual*** Drawings for recommended construction **site** management controls is provided in Table 4-3.

Table 4-3. *Illinois Urban Manual* Drawings for Construction Site Management Strategies

Construction Site Management Strategy	*Illinois Urban Manual* Code
Stabilized Construction Entrance	930
Temporary Stream Crossing	975
Temporary Concrete Washout Facility	954

PERMANENT EROSION CONTROL REQUIREMENTS (§404)

Permanent **stabilization** means that all soil disturbing activities in an area of the **site** have been completed and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover has been established on all unpaved areas and areas not covered by permanent **structures**. Vegetative cover must have a density of 70 percent of the native background vegetative cover. A **disturbed area** may also be considered permanently **stabilized** if riprap, gabions, or other non-vegetative practices are installed.

In general, permanent **stabilization** using seeding often takes time (weeks or even months), especially during times of low rainfall or during the colder months of the year, so it is important to generate an appropriate timeline for permanent **stabilization** in order to prevent extended and costly **maintenance** of temporary **erosion and sediment control practices**.

Permanent **stabilization** must be initiated within seven days following the completion of soil disturbing activities. All temporary **erosion and sediment control practices** should be maintained until permanent **stabilization** is achieved and then removed within 30 days of **stabilization**.

By bringing areas of the **site** to permanent **stabilization**, the workload associated with maintaining and inspecting temporary **erosion and sediment control practices** will be reduced as routine inspections can be discontinued in that area. Table 4-4 provides the ***Illinois Urban Manual*** standard drawings for permanent vegetation.

Table 4-4. *Illinois Urban Manual* Drawings for Permanent Erosion Control Strategies

Permanent Erosion Control Strategy	*Illinois Urban Manual* Code
Permanent Vegetation	880, 880a, 880b, 880c, and 880d

TYPICAL EROSION AND SEDIMENT CONTROLS BY DEVELOPMENT TYPE

The acceptable **erosion and sediment control practices** will vary from project to project, however, certain types of projects will have many of the same practices in common. Examples of typical **erosion and sediment control practices** for different types of **development** are shown in Table 4-5 below.

Table 4-5. Typical Erosion and Sediment Control Practices by Development Type

Development Type	Typical Erosion and Sediment Control Practices
Commercial	• Stabilized Construction Entrance • Silt Fence • Seeding with Erosion Control Blanket • Sedimentation Basin • Concrete Washout Facility • Inlet Protection
Underground Utility Project (within FPA)	• Stabilized Construction Entrance • Double-row silt fence to protect FPA • Placement of soil stockpiles outside of FPA
Single-Family Development (within FPA)	• Stabilized Construction Entrance • Double-row silt fence to protect FPA • Inlet Protection • Sodding and/or Seeding with Erosion Control Blanket • Placement of soil stockpiles outside of FPA
Roadway/Alleyway Projects	• Stabilized Construction Entrance • Silt Fence • Concrete Washout Facility • Inlet Protection

It should be noted that the **erosion and sediment** controls shown in Table 4-5 are typical practices for those **development** types. These should be considered the minimum **erosion and sediment practices** that are required, and depending on the project, additional measures may be required to meet the requirements of Article 4 of the WMO.

SEDIMENT CONTROL PRACTICES FOR GREEN INFRASTRUCTURE

Because every **development** permitted under the WMO is required to incorporate **green infrastructure** into the **site** design, special **maintenance** practices should be developed (both during construction and post-construction) that ensure that the **green infrastructure** functions properly over time. Without proper **maintenance**, the void spaces in porous pavement and infiltration basins may become clogged with **sediment**, reducing their effectiveness.

During Construction

Green infrastructure is susceptible to failure during construction and therefore it is important that staging, construction practices, and **erosion and sediment control practices** all be considered during their installation. To protect the long-term functionality of volume control practices, the following measures should be addressed in the construction sequencing, general notes, and/or **soil erosion and sediment control** plan for a **development**:

- **Volume control practices** should be installed toward the end of the construction period.
- The contributing **drainage area** must be stabilized prior to the installation of the **volume control practice**.
- Soil compaction shall be minimized as much as possible during **site** grading. Appropriate measures (such as fencing) should be used to prevent heavy construction equipment traffic from accessing the area.
- **Volume control facilities** must be protected with a double-row of silt fence (or equivalent measure) during construction. The two layers of silt fence should be placed at least 5 feet apart and must follow the ***Illinois Urban Manual*** standards.
- In general, **volume control facilities** should not be used as temporary sediment traps during construction. For **sites** where this is not practicable, special construction notes and/or details are required to protect the functionality of the facility.

Post-Construction

To prevent clogging in the void space of pervious pavement (concrete, asphalt, pavers), it is recommended that adjacent landscaped areas be designed such that **stormwater runoff** from these areas onto the porous pavement is minimized. In addition, low pressure power washing and vacuuming of the surface is recommended on a yearly basis. This **maintenance** is especially critical during the fall. High pressure washing should be avoided for these types of surfaces, as it can cause damage to the pavement. Proper **maintenance** is especially difficult for pervious pavers, because extra care must be taken so that power washing and vacuuming does not dislodge the small chips that are used to fill in the paver gaps. In addition, small debris can collect in the paver gaps and lead to weed growth.

For infiltration trenches and basins, the use of a mulch layer above the infiltration practice will work like a filter for the **sediment** transported by **stormwater runoff**. The mulch layer will need to be replaced when it is filled, but will protect the void spaces in the soil and aggregate layers below from **sedimentation**. An alternative to using a mulch layer is the installation of a **sediment** trap upstream of the infiltration area. The **sediment** trap is a small depression that captures **stormwater** and allows the **sediment** to settle before it reaches the infiltration basin. For the **sediment** trap to be effective, the collected **sediment** must be removed regularly.

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APPENDIX 27

Compliance Documentation – Post-Construction Runoff Control

ARTICLE 9: MAINTENANCE

Introduction

The WMO was established to manage and mitigate the impacts of **development** and **stormwater** upon **flooding** and water quality. The management and mitigation of these impacts is completed through an approach of effecting change on a variety of levels: from promoting responsible land use; providing storage; minimizing **impervious areas**; protecting and enhancing **wetlands, floodplains**, buffers, and **riparian environments**; minimizing **erosion**; and providing **sediment** control (see §103 for a complete listing). Accomplishing these goals requires implementation of onsite **maintenance** and monitoring to ensure that the work is carried out effectively over the life of the project. Through effective **maintenance** and monitoring, and completion of remedial tasks to address issues that arise, the overall goals of the program and permitted projects can be met.

Many of the **maintenance** requirements specified in the WMO are already required by **National Pollutant Discharge Elimination System (NPDES)** General Permits. The **erosion** and **sediment** control requirements in the WMO are generally based on the General **NPDES** Permit for **Stormwater** Discharges from Construction **Site** Activities (General **NPDES** Permit ILR-10). In addition, many of the **maintenance** requirements for each community's **stormwater** management system are covered under the General **NPDES** Permit for **Stormwater** Discharges from Small Municipal Separate **Storm Sewer** Systems (MS4 Permit).

Under the WMO (§900.1), perpetual **maintenance** plans must be prepared and implemented for the following components of every **development**:

A. **Erosion and sediment control practices**;
B. **Stormwater detention facilities**;
C. **Stormwater** collection facilities including both **major** and **minor stormwater systems;**
D. Volume control facilities;
E. **Native planting conservation areas**;
F. **Qualified sewer construction** including service on grease basins, triple basins, and private pre-treatment facilities;
G. **Wetland mitigation**; and
H. **Riparian environment mitigation**.

For every development permitted under the WMO, the facilities described in A through H above must be listed on Schedule R. In addition, the location of these facilities must be shown on Exhibit R (Recording Exhibit) along with the applicable maintenance responsibilities and activities. Two copies of Schedule R and Exhibit R should be included with each submittal and four copies of each are due at approval. Exhibit R should be submitted separately from the plans as its own sheet (minimum exhibit size of 11" by 17").

Note: All bold terms contained in this document are defined terms in the WMO. Refer to Appendix A of the WMO or the TGM for the definition of each bold term.

Schedule R is not required for simple sewer connection permits that solely includes a straightforward service connection or private sewer extension to existing **development** (i.e. no new site development). In addition, any municipal owned properties/publicly funded permits do not require Schedule R. One exception to the above would be a permit that involves a **Sole Permittee** status (see **Sole Permitte** section in article 3 of the **TGM** for more information). If a Schedule R is not required for a publically funded school improvement project, for example, then all the appropriate **maintenance** schedules and notes must be included as part of the engineering utility or **maintenance** plan, with additional provisions for all proposed qualified sewers (if applicable) including pretreatment facilities. If a Schedule R is required for a permit, as in the case of a new volume control facility on private property, then all the qualified sewer **maintenance** including pretreatment facilities must also be included on Schedule R and Exhibit R (if applicable).

Table 9.1 lists those project types and the likely type of **maintenance** plan or native vegetation performance standards that may apply. In some cases, the **maintenance** may be a temporary measure during construction, but in most cases the **maintenance** will begin post-construction and will continue permanently with the **development**.

Table 9-1. Summary of Maintenance Plan Requirements

		Duration		Vegetative Performance Standards		Manufactured Device
		During Construction	Post Construction	Lawn, etc.	Native Plants	
A	Erosion and sediment control practices	X	X	-	-	-
B	Stormwater detention facilities	X	X	X	X	X
C	Stormwater collection facilities including both major and minor stormwater systems	X	X	X	X	X
D	Volume control facilities	-	X	X	X	X
E	Native planting conservation areas	X	X	X	X	X
F	Qualified Sewer Construction including service on grease basins, triple basins and private pre-treatment facilities	-	X	-	-	X
G	Wetland mitigation	X	X	-	X	X
H	Riparian environment mitigation	X	X	X	X	X

Plan Requirements and Guidance

The **maintenance** plan should describe inspection, **maintenance**, and monitoring activities that occur after the construction phase and continue, as applicable, into perpetuity. There are three key components to an effective **maintenance** plan:

1) A comprehensive list of all **maintenance** tasks that are to be performed for each system (A through H above) and the frequency of each task;

2) The responsible party for performing the **maintenance**; and

3) A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

Guidance for the **maintenance** of the systems listed in items A through H above is included below. Example perpetual maintenance plans and wetland mitigation maintenance and monitoring plans are included at the end of this article.

Erosion and Sediment Control Practices

All **developments** that are greater than or equal to one (1.0) acre in size must comply with the Illinois Environmental Protection (**IEPA**) **NPDES** requirements for construction activities (General **NPDES** Permit ILR-10). However, the WMO requires **erosion and sediment control practices** on all **development sites**, regardless of the area of land disturbance. For every **development**, a **maintenance** plan is required for all temporary and permanent **erosion and sediment control practices**.

The **maintenance** plan should be a schedule of implementation of the **erosion** and **sediment** control plan including, but not limited to:

A. A statement that installation of **erosion and sediment control practices** will occur prior to any soil disturbance;

B. A schedule for construction activities, including **stabilized** construction entrance installation, **sediment** trapping facility installation, **site** clearing, stockpiling, grading, construction waste disposal, temporary and permanent **stabilization**, and removal of temporary **erosion and sediment control practices**;

C. A schedule for inspection, reporting, and **maintenance** of all **erosion and sediment control practices**; and

D. Contact information for the party responsible for implementation and **maintenance** of the **site** soil **erosion** and **sediment** control plan.

Onsite inspections should be completed regularly and also after **storm events** that result in 0.5 inches or more rainfall. During these inspections, an assessment should be made on whether the onsite soil **erosion and sediment control practices** are performing properly, as compared to the specifications contained in the plans and/or ***Illinois Urban Manual***. Any **maintenance** that is required should also be identified and implemented immediately.

All **erosion and sediment control practices** should be monitored and maintained throughout the duration of construction in accordance with the requirements of §302 of the WMO and General **NPDES** Permit ILR-10. In some cases, perpetual **maintenance** and monitoring of projects, post-construction, is required to ensure the **erosion** and **sediment** control issues that may arise are quickly identified and rectified as necessary (see §310.2). However, in most cases monitoring of the **site** will cease once a Notice of Termination (NOT) has been submitted to

IEPA. All temporary **erosion and sediment control practices** should be maintained until permanent **stabilization** is achieved and then removed within 30 days of **stabilization**.

Maintenance and inspection provisions for erosion and sediment control practices during the construction phase should be provided on the plans in the form of general notes and maintenance/inspection schedules. Figures 9.1 and 9.2 provide examples of general notes for maintenance and inspections, and Figure 9.3 provides an example of an inspection and maintenance schedule.

GENERAL NOTES – MAINTENANCE

THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT SHOULD BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATION CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN AND STANDARD SPECIFICATIONS. ALL EROSION CONTROL MEASURES MUST BE MAINTAINED AND IMMEDIATELY REPLACED AS NEEDED AND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INSPECTION, MAINTENANCE, AND REPAIR. THE CONTRACTOR SHALL INSPECT AND COMPLETE MAINTENANCE OF ALL ITEMS A MINIMUM OF EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5-INCH RAINFALL. ALL TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, INCLUDING PERIMETER EROSION BARRIER, MUST BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETED.

STABILIZED CONSTRUCTION ENTRANCE: THE ENTRANCES SHOULD BE MAINTAINED TO PREVENT TRACKING OF SEDIMENT ONTO PUBLIC STREETS. MAINTENANCE INCLUDES TOP DRESSING WITH ADDITIONAL STONE AND REMOVING TOP LAYERS OF STONE AND SEDIMENT. THE SEDIMENT RUN-OFF INTO THE PUBLIC RIGHT-OF-WAY SHOULD BE REMOVED IMMEDIATELY.

RIPRAP OUTLET PROTECTION: RIPRAP SHOULD BE INSPECTED FOR ANY SCOUR BENEATH THE RIPRAP OR FOR STONES THAT HAVE BEEN DISLODGED. SEDIMENT ACCUMULATION IN THE OUTFALL AREA SHOULD BE REMOVED AS NEEDED.

CONCRETE WASHOUT AREA: EXISTING AREAS SHOULD BE CLEANED OUT, OR NEW FACILITIES SHOULD BE CONSTRUCTED AND OPERATIONAL ONCE THE EXISTING WASHOUT IS 75% FULL. WASHOUT SHOULD BE INSPECTED FREQUENTLY TO ENSURE THAT PLASTIC LININGS ARE INTACTS AND SIDEWALLS HAVE NOT BEEN DAMAGED BY CONSTRUCTION ACTIVITIES. WHEN THE WASHOUT AREA IS ADJACENT TO A PAVED ROAD, THE PAVED ROAD SHOULD BE INSPECTED FOR ACCUMULATED CONCRETE WASTE. ANY ACCUMULATED CONCRETE WASTE ON THE ROAD, CURB, OR GUTTER SHOULD BE REMOVED AND PROPERLY DISPOSED.

EROSION CONTROL BLANKET: THE BLANKET AND STAPLES SHOULD BE INSPECTED FREQUENTLY AND SHALL BE INSTALLED TO THE ILLINOIS URBAN MANUAL, UNLESS OTHERWISE INSTRUCTED BY THE MANUFACTURER. EROSION OCCURRING UNDERNEATH THE BLANKET SHOULD BE BACK-FILLED AND SEEDED WITH THE APPROPRIATE SEED MIX. ADDITIONAL BMP'S MAY NEED TO BE INSTALLED TO REDUCE EROSION UNDER THE BLANKET.

SILT FENCE: SILT FENCES SHOULD BE INPSECTED REGULARLY FOR UNDERCUTTING WHERE THE FENCE MEETS THE GROUND, OVERTOPPING, AND TEARS ALONG THE LENGTH OF THE FENCE. DEFICIENCIES SHOULD BE REPAIRED IMMEDIATELY. REMOVE ACCUMULATED SEDIMENTS FROM THE FENCE BASE WHEN THE SEDIMENT REACHES ONE-HALF THE FENCE HEIGHT. DURING FINAL STABILIZATION, PROPERLY DISPOSE OF ANY SEDIMENT THAT HAS ACCUMULATED ON THE SILT FENCE. INSTANCES WHEN AREAS OF SILT FENCE CONTINUALLY FAIL, REPLACE SILT FENCE WITH ANOTHER BMP AS SEEN FIT.

CATCH BASIN AND INLET FILTERS: INLET FILTERS SHOULD BE INSPECTED FOR PROPER FILTERING, IF FILTER BAGS ARE USED, REMOVE SEDIMENT FROM THE FILTER BAGS WHEN 50% OF THE STORAGE VOLUME HAS BEEN FILLED, UNLESS OTHERWISE INSTRUCTED BY THE MANUFACTURER. REMOVE TRASH AND DEBRIS DURING INSPECTIONS. ACCUMULATED MATERIAL IN THE FILTERS SHOULD BE DISPOSED PROPERLY. DO NOT PUNCTURE HOLES IN FILTERS IF PONDING OCCURS.

THE CONTRACTOR OR CO-PERMITTEE WILL ASSUME MAINTENANCE OF FACILITIES FOR THE PROPOSED PROJECT ONCE CONSTRUCTION IS COMPLETE AND THE DISTURBED AREAS ARE STABILIZED.

Figure 9.1. Example General Notes for Maintenance of Erosion and Sediment Control Practices

GENERAL NOTES – INSPECTIONS

THE OWNER SHALL DESIGNATE A QUALIFIED PERSON TO BE RESPONSIBLE FOR SEDIMENT AND EROSION CONTROL OBSERVATION REPORTING. THIS QUALIFIED PERSION SHALL MEET THE REQUIREMENTS NOTED IN THE ILR10 PERMIT CONDITIONS AND/OR THE WMO REGULATIONS. SITE OBSERVATIONS SHOULD OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER, OR EQUIVALENT SNOWFALL. SITE OBSERVATION REPORTS SHOULD BE MAINTAINED ONSITE AS PART OF THE SWPPP.

EACH SITE OBSERVATION SHALL INCLUDE THE FOLLOWING COMPONENTS:

A. DISTURBED AREAS AND AREAS USED FOR THE STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE CHECKED FOR EVIDENCE OF, OR POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY HAVE BEEN INSTALLED AND ARE OPERATING CORRECTLY. WHERE DISCHARGE POINTS ARE ACCESSIBLE, THEY SHOULD BE CHECKED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHOULD BE CHECKED FOR OFF-SITE SEDIMENT TRACKING. ALL PUMPING OPERATIONS AND ALL OTHER POTENTIAL NON-STORM WATER DISCHARGES SHOULD BE OBSERVED.

B. BASED ON THE RESULTS OF THE SITE OBSERVATION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED, AND THE POLLUTION PREVENTION MEASURES DESCRIBED IN THIS PLAN SHALL BE REVISED AS APPROPRIATE, AS SOON AS PRACTICABLE AFTER THE OBSERVATION. THE MODIFICATIONS, IF ANY, SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITH 7 CALENDAR DAYS FOLLOWING THE SITE OBSERVATION.

C. A REPORT SUMMARIZING THE SCOPE OF THE OBSERVATION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE OBSERVATION, THE DATE(S) OF THE OBSERVATION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PARAGRAPH B ABOVE SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE OF FINAL STABILIZATION OR PERMIT COVERAGE IS TERMINATED. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G (SIGNATORY REQUIREMENTS) OF THE ILR10 NPDES PERMIT.

D. THE OWNER SHALL NOTIFY THE APPROPRIATE AGENCY FIELD OPERTATIONS SECTION OFFICE BY EMAIL AT EPA.SWNONCOMP@ILLINOIS.GOV, TELEPHONE, OR FAX WITHIN 24 HOURS OF ANY INCIDENCE OF NONCOMPLIANCE FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING A SITE OBSERVATION, OR FOR VIOLATIONS OF ANY CONDITION OF THE PERMIT. THE OWNER SHALL COMPLETE AND SUBMIT WITHIN 5 DAYS OF INCIDENCE OF NONCOMPLIANCE (ION) REPORT FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING AN INSPECTION CONDUCTED. SUBMISSION SHALL BE ON FORMS PROVIDED BY THE AGENCY AND INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT, WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE.

E. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY AS DEFINED IN PART VI.G OF THE ILR10 NPDES PERMIT (SIGNATORY REQUIREMENTS).

F. ALL REPORTS OF NONCOMPLIANCE SHALL BE MAILED TO THE AGENCY AT THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
COMPLIANCE ASSURANCE SECTION
1021 NORTH GRAND AVENUE EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

Figure 9.2. Example General Notes for Inspection of Erosion and Sediment Control Practices

	CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	CONTROL MEASURE CHARACTERISTICS	TEMP.	PERMANT
(a)	VEGETATIVE SOIL COVER	TEMPORARY SEEDING	X		X	
		PERMANENT SEEDING	X			X
		DORMANT SEEDING			X	X
		SODDING			X	X
		PLANTS, TREES & SHRUBS				X
	NON VEGETATIVE SOIL COVER	MULCHING			X	X
		EROSION BLANKET	X	PROTECTS THE SOIL SURFACE FROM RAINDROP IMPACT AND OVERLAND FLOW DURING THE ESTABLISHMENT OF VEGETATION. REDUCES SOIL MOISTURE LOSS DUE TO EVAPORATION.	X	X
		AGGREGATE COVER			X	X
		PAVING	X			X
	DIVERSIONS	RIDGE DIVERSION			X	X
		CHANNEL DIVERSION			X	X
		COMBINATION DIVERSION			X	X
		CURB AND GUTTER				X
		BENCHES			X	X
	WATERWAYS	BASE CHANNEL	X		X	
		STRUCTURAL STREAMBANK STABILIZATION		PROTECTS STREAMBANKS FROM EROSIVE FORCE OF FLOWING WATER		X
		VEGETATIVE CHANNEL			X	X
		VEGETATIVE STREAMBANK STABILIZATION		PROTECTS STREAMBANKS FROM THE EROSIVE FORCE OF FLOWING WATER AND PROVIDES NATURAL, PLEASING APPEARANCE		X
		LINED CHANNEL			X	X
	ENCLOSED DRAINAGE	STORM SEWER	X			X
		UNDERDRAIN			X	X
	SPILLWAYS	STRAIGHT PIPE SPILLWAY				X
		DROP INLET PIPE SPILLWAY				X
		WEIR SPILLWAY			X	X
		DOZ INLET WEIR SPILLWAY			X	X
	OUTLETS	LINED APRON			X	X
	SEDIMENT BASINS	EMBANKMENT SEDIMENT BASIN			X	X
		EXCAVATED SEDIMENT BASIN			X	X
		COMBINATION SEDIMENT BASIN			X	X
	SEDIMENT FILTERS	BARRIER FILTER			X	
		VEGETATIVE FILTER	X		X	X
		FILTER FABRIC	X		X	X
	MUD AND DUST CONTROL	STABILIZED CONST. ENTRANCE	X		X	X
		DUST AND TRAFFIC CONTROL			X	X

(a) EROSION CONTROL BLANKET SHALL BE PLACED ON ALL DISTURBED AREAS WITHIN 14 DAYS AFTER FINAL GRADE IS REACHED.

INSPECTION AND MAINTENANCE SCHEDULE

ACTIVITY	RESPONSIBLE PARTY	DURATION
STABILIZATION DURING CONSTRUCTION MAINTENANCE	CONTRACTOR	DECEMBER 2005 TO JUNE 2006
STABILIZATION DURING CONSTRUCTION-OBSERVATION	ENGINEER	WEEKLY AND AFTER EACH SIGNIFICANT RAIN/ALL EVENT
VEGETATION MAINTENANCE	CONTRACTOR	1 YEAR FROM COMPLETION
VEGETATION AND STABILIZATION MAINTENANCE	CONTRACTOR	ONGOING FROM CONSTRUCTION COMPLETION

SOIL PROTECTION SCHEDULE

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING	←	—	—	—	—	→						← — →

PROPOSED SCHEDULE

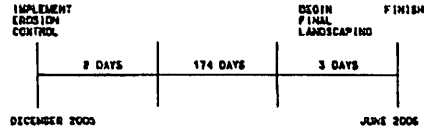


Figure 9.3. Example Maintenance and Inspection Schedule for Erosion and Sediment Control Practices

Stormwater Detention Facilities

A scheduled perpetual **maintenance** plan is required for all **stormwater detention facilities**, and should include, at a minimum, the following items:

- Planned **maintenance** tasks and frequency of each task such as removal of **sediment**, debris, mowing and pruning of vegetation, and restoration of eroded areas;
- Identification of the responsible parties for performing the **maintenance** tasks; and
- A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

Maintenance tasks for **stormwater detention facilities** should be performed monthly, at a minimum. The **maintenance** plan for **stormwater detention facilities** should include the following tasks:

- *Debris removal.* Trash, brush, grass clippings, **sediment**, and other debris should be removed from the **detention facility** to maintain the designed storage volume. To prevent clogging, the outlet control **structure** should also be inspected and all debris should be removed.
- *Restoration of eroded areas.* For areas where there is evidence of **erosion**, or in areas where future **erosion** is likely, protection should be provided to prevent further damage. All bare areas should be seeded and restored. Areas located along the side slopes of the **detention facility** will require seeding in conjunction with an **erosion** control blanket.
- *Vegetation control.* If used as a recreational area, the grassed areas of the **detention facility** should be mowed regularly to provide the intended use of the area. Grass clippings from mowing activities should always be collected. Mechanical methods for controlling weeds should be used instead of herbicides and pesticides. In addition, trees should not be allowed to grow along the emergency overflow weir and on any berms that are greater than four feet high. Vegetative control for **detention facilities** that serve as a **wetland** or wildlife habitat area should follow the guidance contained in the **wetland maintenance** plan.

Stormwater Collection Facilities

A perpetual **maintenance** plan for **stormwater facilities** is required. This includes the **major** and **minor** components of the **stormwater system** (other than the **detention facility**), such as **storm sewers**, catch basins, inlets, **outfalls** to **waterways**, and overland flow routes. A scheduled perpetual **maintenance** plan is required for all **stormwater** collection facilities, and should include, at a minimum, the following items:

- Planned **maintenance** tasks and frequency of each task such as removal of **sediment**, debris, mowing and pruning of vegetation, and restoration of eroded areas;

- Identification of the responsible parties for performing the **maintenance** tasks; and

- A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

To ensure that **stormwater** collection facilities function as they were designed, regular inspections and **maintenance** of the system should be performed every two weeks. At a minimum, the following **maintenance activities** should be performed:

- *Debris removal.* Trash, wood chips, grass clippings, **sediment**, and other debris should be removed from the catch basins, inlets, **outfalls**, and **storm sewers** to prevent clogging. Cleaning should be done in such a way that the debris is not discharged back into the **stormwater** system.

- *Removal of obstructions.* Inspections should be performed to ensure that all overland flow routes are free from obstructions. If an obstruction has been placed in an overland flow route, it should be removed immediately.

- *Vegetation control.* For grassed swales that serve as overland flow routes, regular mowing should be performed to keep grass at an optimum height (less than six inches). Trees, bushes, and any other non-grass vegetation should be removed to preserve the conveyance capacity of the swale. Any areas of bare soil should be restored immediately using seeding with **erosion** control blanket.

Volume Control Facilities

A perpetual **maintenance** plan for volume control facilities is required. The written plan must include:

- Planned **maintenance** tasks and frequency of each task such as removal of **sediment**, debris, mowing and pruning of vegetation, and restoration of eroded areas;

- Identification of the responsible parties for performing the **maintenance** tasks; and

- A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

Because every **development** permitted under the WMO is required to incorporate **green infrastructure** into the **site** design, special **maintenance** practices should be developed that ensure that the **green infrastructure** (both **volume control practices** and **flow-through practices**) functions properly over time. For **volume control practices**, monitoring wells are required for every 40,000 ft^2 of surface area. The monitoring wells should be utilized to determine the water level in the **volume control practice** and verify it is functioning properly.

Without proper **maintenance**, the void spaces in porous pavement and infiltration basins may become clogged with **sediment**, reducing their effectiveness. To prevent clogging in the void space of pervious pavement (concrete, asphalt, pavers), it is recommended that adjacent landscaped areas be designed such that **stormwater runoff** from these areas onto the porous pavement is minimized. In addition, low pressure power washing and vacuuming of the surface is recommended on a yearly basis. This **maintenance** is especially critical during the fall. High pressure washing should be avoided for these types of surfaces, as it can cause damage to the pavement. Proper **maintenance** is especially difficult for pervious pavers, because extra care must be taken so that power washing and vacuuming does not dislodge the small chips that are used to fill in the paver gaps. In addition, small debris can collect in the paver gaps and lead to weed growth.

For infiltration trenches and basins, the use of a mulch layer above the infiltration practice will work like a filter for the **sediment** transported by **stormwater runoff**. The mulch layer will need to be replaced when it is filled, but will protect the void spaces in the soil and aggregate layers below from **sedimentation**. An alternative to using a mulch layer is the installation of a **sediment** trap upstream of the infiltration area. The **sediment** trap is a small depression that captures **stormwater** and allows the **sediment** to settle before it reaches the infiltration basin. For the **sediment** trap to be effective, the collected **sediment** must be removed regularly.

For mechanical **flow-through practices**, such as an oil and grit separator, an effective **maintenance** plan is based on performing frequent inspections. The rate at which these devices collect pollutants will vary from **site** to **site**, and therefore frequent inspections (once per month) should be performed to ensure the system is functioning properly. The **maintenance** for these devices should be performed in accordance with the manufacturer's recommendations. As an example, the inspection and **maintenance** guide for the CDS system, which was developed by Contech Construction Products, Inc., is available on-line at:

http://www.conteches.com/products/stormwater-management/treatment/cds.aspx#1822141-technical-info

Qualified Sewer Construction

A perpetual **maintenance** plan is required for all **qualified sewer construction**. The written plan must include, at a minimum:

- Planned **maintenance** tasks and frequency of each task for the removal of objectionable wastes, fats, oils and grease, or any **other wastes** collected in private pre-treatment or separator **structures**;
- Planned routine **maintenance** for all private lift station and pumping facilities;
- Operation **maintenance** agreements for all private **service sewers** providing service to multiple **owners**;

- A description of applicable temporary and permanent access and **maintenance** easements granted or dedicated to, and accepted by, a governmental entity.

The **maintenance** for **sanitary sewer** systems should follow the guidance provided in document, Separate **Sanitary Sewer** Collection System Operation and **Maintenance** Manual for Local Agencies Tributary to the Metropolitan Sanitary **District** of Greater Chicago. This operation and **maintenance** guide was developed by Metcalf and Eddy, Inc. in 1989 on behalf of the **District** and is available on-line through the **District's** website at:

https://www.mwrd.org/irj/portal/anonymous/Infiltration

Private pre-treatment and separator **structures** that collect objectionable wastes, fats, oils and grease, or any other undesirable waste should be inspected and, if necessary, maintained every two weeks. **Maintenance** of these **structures** is usually performed by permitted haulers or recyclers, and consists of removing the material and then disposing of the material in accordance with local, State, and Federal laws.

To prevent stoppages in gravity sewers, sewer cleaning should be performed on a preventative basis. A regular cleaning schedule for sewers should be developed such that 100% of the pipes are cleaned annually. Some pipe sections may be prone to stoppages and may require more frequent cleaning, such as every month. Other pipe sections may not be susceptible to stoppages and therefore can be cleaned annually. The cleaning schedule should be customized based on information obtained during regular inspections of the system. When cleaning the sewer system, there are both hydraulic cleaning methods and mechanical cleaning methods available. Hydraulic methods utilize high-velocity water to clean the bottoms and walls of the pipes, whereas mechanical methods use equipment to physically remove the material from the bottoms and walls of the pipes.

Planned routine **maintenance** for all private lift station and pumping facilities should be based on the manufacturer's recommendations. The schedule of **maintenance activities** can be supplemented by information obtained during the regular inspections of the equipment. At a minimum, the **maintenance activities** and frequency should meet the manufacturer's recommendations.

Wetland Mitigation and Native Planting Conservation Areas

Maintenance plans must be prepared for **wetland mitigation** and **native planting conservation areas**. The plans shall cover the short term and long term (perpetual) **maintenance**. The short term plans will have set time frames based on the following examples. Actual timeframes will vary based on the complexity or difficulty of the project. The timeframes set a project length of the program; however, failure to meet the performance standards listed in the plan can extend the period until the project is approved. Long term plans are perpetual and intended to maintain the level of quality achieved during the short term period.

Short Term **Maintenance** Plan Example Timeframes:

- Temporary Impact Minimal Restoration, e.g. utility line installation - 1 year
- Enhancement/restoration of an existing area (more than minimal) - 3 years
- **Wetland Mitigation** - 5 years

The contents of the Short Term Plan are as follows:

- Proposed **wetland hydrology** and an inundation and duration analysis;
- Proposed soils and soil management activities;
- Proposed planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
- Proposed **maintenance** and monitoring plan with **maintenance activities** and performance criteria outlined;
- Schedule of earthwork, planting, monitoring, and **maintenance**; and
- A description of applicable temporary and permanent access and **maintenance** and conservation easements granted or dedicated to and accepted by a governmental entity.

The contents of the Long Term Plan are as follows:

- A plan for the continued management, operation, and **maintenance** of the **wetland mitigation** measures including the designation of funding sources and the **person** responsible for long-term operation and **maintenance**.

Riparian Environment Mitigation

Maintenance plans must be prepared for **riparian environments**. The plans shall cover the short term and long term (perpetual) **maintenance**. The short term plans will have set time frames based on the following examples. Actual timeframes will vary based on the complexity or difficulty of the project. The timeframes set a project length of the program; however failure to meet the performance standards listed in the plan can extend the period until the project is approved. Long Term plans are perpetual and intended to maintain the level of quality achieved during the short term period.

Short Term **Maintenance** Plan Example Timeframes:

- Temporary Impact Minimal Restoration, e.g. utility line installation - 1 year
- Mitigation/Enhancement/Restoration of an existing **riparian environment** - 3 years

The contents of the **Riparian** Short Term Plan are as follows:

- Proposed **wetland hydrology** and an inundation and duration analysis;
- Proposed soils and soil management activities;
- Proposed planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
- Proposed **maintenance** and monitoring plan with **maintenance activities** and performance criteria outlined;
- Schedule of earthwork, planting, monitoring, and **maintenance**;

- A plan for the continued management, operation, and **maintenance** of the **wetland mitigation** measures including the designation of funding sources and the **person** responsible for long-term operation and **maintenance**.

As applicable, the following shall also be included in the **maintenance** plan discussion.

- A description of applicable temporary and permanent access and **maintenance** and conservation easements granted or dedicated to and accepted by a governmental entity;
- The proposed naturalizing methods, such as meandering, pools, or riffles for relocated channels. Methods proposed are expected to be able to withstand all events up to the **base flood** without increased **erosion**;
- The methods by which the normal flow within the channel will be diverted to construct the new or relocated channel;
- The **erosion and sediment control practices** to be implemented;
- The appropriate hydrologic and hydraulic methods analyzing the impacts on **flood** flows and **flood** elevations (to be provided in the **floodplain** and **floodway** submittal) meeting all other requirements in the **Ordinance**, including the **floodplain** and **floodway** requirements outlined in §601 and §602 of the **Ordinance**;
- Proposed planting zones, species, quantities, sizes, locations, specifications, methodologies, and details;
- Scheduling of earthwork, planting, **maintenance**, and monitoring; and
- A description of applicable temporary and permanent access and **maintenance** and conservation easements granted or dedicated to, and accepted by, a governmental entity.

Wetland, Buffer, Riparian, and Native Planted Areas Maintenance & Monitoring Plan Format

The WMO describes within §310 (**Maintenance** and Monitoring Plan Submittal) the required contents of the submittals for each of the **site** elements listed above. However, the WMO does not provide any specific guidance or criteria regarding performance standards or format of the document. Recommendations regarding the type of **maintenance** and monitoring plan to prepare and recommended performance standards regarding certain project elements are described below.

It is recommended that **maintenance** and monitoring plans be prepared following Adaptive Management Principles. **Maintenance** and monitoring plans will be tailored to suit the needs of each **development**. Applicants will be required to determine the applicability of each element and complete the required **maintenance** and monitoring in accordance with the approved plan.

Adaptive Management is a **structured** approach for addressing uncertainties by adjusting implementation, as necessary, to improve the probability of success. Adaptive management is seen as an evolving process involving learning (the accumulation of understanding over time) and adaptation (the adjustment of management over time). The sequential cycle of learning and adaptation leads naturally to two beneficial consequences:

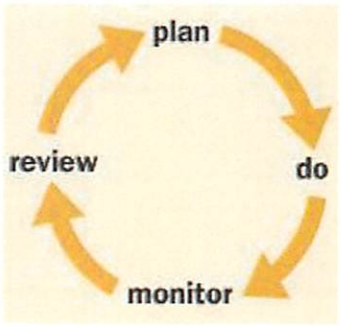
1. Better understanding of the resource system being managed, and

2. Better management based on that understanding.

Adaptive Management Goals and Objectives

Plans are designed to be adaptive to changing **site** conditions observed through periodic monitoring of the **site**. The monitoring visits are important to determine the annual tasks needed. Those tasks are then completed and evaluated for effectiveness. New tasks are then defined as necessary to achieve the project goals and objectives.

Plan:



- Identify management issues (e.g. weed infestations)
- Identify management goals (e.g. weeds managed, native seeding);
- Determine management strategies available (e.g. herbicide, hand pulling, burning);
- Select appropriate management action (e.g. hand removal);
- Determine what will be monitored and how (e.g. establish a fixed point in field); and
- Determine how change and success will be evaluated (e.g. absence of weeds one month or one year after removal).

Do:

- Carry out action (e.g. remove weeds, complete prescribed burn).

Monitor:

- Monitor results (e.g. revisit **site** to determine success of activities).

Review:

- Assess previous management strategy and modify plan as necessary to adapt to current **site** conditions; and
- Return to Planning – begin again, adapt to new **site** conditions.

Recommended Native Seeding Planting Performance Standards

For **wetland**, **riparian**, buffer, and **stormwater** areas proposed to contain native seeding or planting, the following minimum performance standards shall apply. Applicants may offer alternative standards for unique situations.

1. For projects which have or will receive a permit from the **US Army Corps of Engineers** (**Corps**), applicants should follow the most current version of the ***Chicago District Permittee Responsible Mitigation Requirements*** to the mitigation areas for **wetland**, buffer, and **riparian environments**. The guide is available on-line through the **Corps** website at:

http://www.lrc.usace.army.mil/Missions/Regulatory/MitigationRequirements.aspx

2. For projects that do not have to receive a **Corps** permit, applicants should at a minimum achieve the following standard:

   - At least 80% of the vegetation present within the planted **wetland** and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated areas that are not undergoing restoration or are lawn.

Maintenance Plan Implementation

As specified in the WMO (§900.4), **maintenance** is the responsibility of the **co-permittee** and **permittee** of the **development**. The **maintenance** responsibility may be delegated to an entity that is acceptable to the **permittee**, however, ultimate responsibility for the **maintenance** of the facilities lies with the **permittee**.

Maintenance plans may be modified if **site** conditions change or issues arise, however, the **District** or **authorized municipality** has discretion as to whether or not to accept the requested modification.

EXAMPLE MAINTENANCE PLAN FOR EXHIBIT R (RECORDING EXHIBIT)

The Owner of the XYZ Development, with facilities as shown on Exhibit R, shall assume responsibility for the following perpetual maintenance activities:

1. General

Regular inspections and routine maintenance of general areas shall be performed on a monthly or as-needed basis. Specific items of concern include:

____ Litter and debris shall be controlled
____ Landscaped areas shall be maintained with regular mowing and restored with appropriate seeding/vegetation as necessary
____ Accumulated sediment shall be disposed of properly, along with any wastes generated during maintenance operations
____ Riprap areas shall be repaired with the addition of new riprap, as necessary, of similar size and shape
____ Roads shall be swept, vacuumed and/or washed on a regular basis

2. Stormwater Management Facilities

All components of the stormwater management facilities shall be checked monthly between March and November and maintained as necessary to ensure proper performance. It is critical that all inflows and outflows to the detention facility are clean and performing as designed. In addition, the design volume of the detention facility shall also be maintained. Inspections for the following specific items should be conducted monthly between March and November:

Side Slopes/Embankment/Emergency Overflow Structure

____ Inspect embankments for settlement and erosion
____ Remove woody growth from the embankment
____ Any breaks, hire Registered Professional Engineer for design resolution
____ Seed and sod any eroded areas
____ Signs of piping (leakage), repair
____ Signs of seepage or wet spots on the downstream face of a berm, may require toe drains or chimney drains to solve problems
____ Stabilize emergency overflow structure if erosion observed
____ Remove obstructions blocking emergency overflow spillway

Vegetated Areas

____ Regular mowing to control vegetation, no cutting of native vegetation
____ Need for planting, reseeding or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area). Reseed with alternative grass species if original grass cover has not successfully established.
____ Evidence of grazing, motorbikes or other vehicles, repair
____ Check for invasive vegetation, remove where possible
____ All vegetation must be maintained per the approved planting plan

Outlet Control Structure

____ Inspect restrictor and remove debris if clogged or discharge reduced
____ Remove accumulated sediment at outlet
____ Scour and erosion at outlet, repair and reseed
____ Any ice damage to outlet of pipe, repair if necessary
____ Condition of trash tracks, remove debris
____ Outlet channel conditions downstream

Access for Maintenance Equipment

____ Remove any obstructions placed in maintenance easements

Safety Features

____ Access controls to hazardous areas
____ Fences
____ Loose or damaged posts
____ Loose or broken wires
____ Accumulated debris in fences
____ Condition of gates
____ Signs

Detention Volume

____ Inspect all stormwater detention facilities to ensure that the constructed volume for detention is maintained. No sediment, topsoil, or other dumping into the facility shall be allowed. Specific locations in the stormwater management system, designed to accumulate sediment, shall be dredged as necessary to prevent sediment from reaching the invert of any gravity outlet pipe.

3. Volume Control Facility

Routine inspections and maintenance of volume control facilities shall be performed by the Owner on a yearly or as-needed basis. Specific items of concern include:

____ Facility shall be inspected yearly using the monitoring well to verify the system is functioning properly.
____ Surface of permeable pavement shall be cleaned with a low-pressure power washer.
____ Accumulated sediment from surface shall be vacuumed out and disposed of properly.
____ Appropriate signage shall be repaired if damaged or illegible.

4. Stormwater Collection System

The Owner shall perform monthly inspections of all components of the stormwater collection system. The monthly inspection shall occur between March and November and include the following specific areas of concern:

Storm Inlets/Manholes

____ Remove accumulated leaves and other debris from grates

____ Reset covers/lids on as-needed basis
____ Remove accumulated sediment from bottom of manhole when 50% of sump is filled

Storm Sewers/Culverts
____ Visually inspect pipes by removing manhole lids, make repairs as necessary
____ Storm sewers and culverts shall be checked for siltation deposits at inlets, outlets, and within the conduit, clean out as necessary
____ Restore riprap at outfalls if erosion observed
____ Restore riprap at outfalls
____ Replant and reseed any eroded areas

Overland Flow Routes (Ditches/Swales)
____ Annual visual inspections shall be performed that verify the design capacity of the overland flow routes is maintained. The slope and cross-sectional area of the ditch/swale shall be verified during this inspection.
____ Remove any obstructions that have been placed in the drainage path
____ Seed and sod any eroded areas
____ Restore riprap as necessary
____ Regrade to provide positive drainage as necessary (A Professional Land Surveyor may be required to check grades to ensure positive drainage).
____ Regular mowing to control vegetation
____ Rototill bottom of dry swales if not drawing down within 48-hours

5. Vegetated Areas
____ Need for planting, reseeding, or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area after second growing season). Reseed with alternative native grass species if original grass cover has not successfully established.
____ Evidence of grazing, motorbikes, or other vehicles, repair.
____ Check for invasive vegetation, remove when possible.
____ Regular mowing to control vegetation; it is recommended that native vegetation remain uncut.
____ Dead or damaged non-native grassy areas – repair with seeding with fertilization or seeding with mulch.
____ Compensatory storage area shall be reseeded with appropriate vegetation according to the approved planting plan.

6. Qualified Sewer Construction
____ Perform manhole inspections once every five years, make repairs as necessary.
____ Perform sewer inspections once every five years, make repairs as necessary.
____ Perform regular sewer cleaning so that every sewer segment is cleaned once every five years.
____ Remove any obstructions placed in maintenance easements that may impede maintenance equipment access.

SAMPLE - WETLAND MITIGATION
5 YEAR MANAGEMENT AND MONITORING PLAN

DATE

PREPARED FOR:

(USACE Application No. LRC-XXXX)
(XYZ Project No. XX-XXXX)

Introduction

The (OWNER) will implement a 5-Year Wetland Management and Monitoring Plan for the wetland mitigation and natural areas within the _____ project area. The purpose of this Wetland Management and Monitoring Plan is to define the responsibilities of OWNER in regards to the wetland mitigation and restoration.

The success or failure of the project is largely dependent upon completion of maintenance and monitoring during the five-year management program. The following Wetland Management and Monitoring Plan includes a schedule describing Wetland Mitigation Performance Standards and Reporting and Compliance requirements.

Vegetation Performance Standards

The following Ecological Performance Standards apply to USACE wetland restoration and enhancement areas, and associated buffer that are providing wetland mitigation credit. The limits of these combined areas are shown on the attached map and identified as "USACE REGULATED WATERS, WETLAND, AND BUFFER LIMITS".

1. A temporary cover crop shall be planted on all slopes immediately upon completion of any earthwork to prevent soil erosion. Soil erosion and sediment control measures shall be in place during all construction work. An erosion control blanket may also be required depending on site conditions and season of planting. Within three (3) months, at least 90% of this area, as measured by aerial coverage, will be vegetated. If the desired long-term slope vegetation is not planted with the temporary crop, it shall then be planted in the first available growing season appropriate for each plant community. All cover crop species shall be non-persistent or native and not allelopathic.

2. Species selected for the planting shall be native to the county where the mitigation site is located (ref. Swink and Wilhelm, Plants of the Chicago Region, 1994), and shall be appropriate for the hydrologic zone to be planted.
    - **Marsh**- minimum of 15 native perennial species
    - **Sedge meadow/wet prairie**- minimum of 35 native perennial species
    - **Mesic Prairie** (buffer) - minimum of 25 native perennial species

3. At least 50% of the required minimum number of species shall occur at a 10% frequency or greater, within each plant community zone or area. Multiple transects within a given plant community may be combined for this frequency analysis.

4. A native mean coefficient of conservatism value (native mean C value) of greater than or equal to 3.5 shall be achieved in each separate vegetated plant community (e.g. wet prairie, marsh, mesic prairie buffer), and as measured over the entire mitigation site area. Native plant species coefficients of conservatism are designated in Swink, Floyd and Gerould Wilhelm, Plants of the Chicago Region (Indianapolis: Indiana Academy of Science, 4th edition, 1994).

   Interim Yearly Standards:

   a. By the end of the first full growing season, at least 30% of the vegetation present within the planted wetland and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated wetland or buffer.

   b. By the end of the second full growing season, at least 50% of the vegetation present within the planted wetland and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated wetland or buffer.

   c. By the end of the third full growing season, at least 60% of the vegetation present within the planted wetland and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated wetland or buffer.

   d. By the end of the fourth and fifth full growing seasons, at least 80% of the vegetation present within the planted wetland and buffer restoration area shall be native, non-invasive species. This standard does not apply to emergent communities or existing previously vegetated wetland or buffer.

5. The native floristic quality index value (native FQI) shall be greater than or equal to 20 in each separate vegetated community zone and as measured over the entire mitigation site. The floristic quality assessment method is described in Swink and Wilhelm, Plants of the Chicago Region.

   Steps # 4 and #5 are evaluated based upon the overall plant community inventories as well as transect summaries. If a portion of the site has achieved compliance with the performance standards, the standard shall be maintained in that portion until the final compliance sign off for the mitigation site.

6. No area over the entire mitigation site greater than 1 square meter shall be devoid of vegetation, as measured by aerial coverage, unless specified on approved mitigation plans. This standard does not apply to emergent, streamside and aquatic communities.

7. None of the three most dominant plant species in any of the wetland community zones may be non-native species or weedy species, including but not limited to:

    - Typha angustifolia
    - Typha X glauca
    - Phragmites australis
    - Lythrum salicaria
    - Salix interior
    - Phalaris arundinacea

    These species shall not cumulatively comprise more than 5% of the total percent cover (not relative cover) for each planted restored community. This standard does not apply to existing emergent wetland, streamside and aquatic communities or enhancement areas.

8. The native perennial species within each wetland plant community shall represent at least 80% of the total dominance measure. A lower percent native perennial species of the total dominance measure may be acceptable if it is demonstrated with transect data that the remaining dominance percentage is by native annual and biennial wetland plant species and the FQI and mean C standards are exceeded.

9. A vegetation map of the mitigation site based on as-built drawings developed at the completion of implementation shall be submitted. This information shall be descriptive and define the limits of all vegetation areas by community type, based on field observations. The permanent transects shall be shown on this map. Representative photographs of each vegetation area by general community zone shall be submitted to the Corps.

Hydrology Performance Standards

Consistent with the Corps of Engineers Wetlands Delineation Manual (1987) and/or any appropriate regional supplements, all areas to receive credit as wetland plant communities shall have soils saturated within 12 inches or less of the ground surface for at least 12.5% of the growing season as defined in this ICA. To meet this standard the mitigation site shall demonstrate inundated or saturated soils for 23 consecutive days during the growing season. In addition to this minimum, hydrology data should reflect a hydrologic regime that is appropriate to the native plant community proposed for establishment.

Monitoring Standards

Monitoring and data collection are intended to assess whether the mitigation has attained the following performance standards for full credit release and certification. Monitoring is required for five (5) years from the completion of planting of the wetland area. It shall also be recognized that monitoring may need to continue beyond the five (5) year period until full performance standards are attained. This may be especially true for forested communities with a longer growing time to maturity.

Wetland Delineation

To meet full performance standards, a routine wetland delineation shall be performed to verify the total acreage of wetlands and waters achieved on site. If requested by the Corps, the wetland areas shall be staked for final inspection. The Corps may request that the property boundaries for the mitigation site shall be marked as well. The delineation shall be included/reported in the final monitoring report, if not before. It is recognized that the actual acreage of aquatic resources/wetland will vary from that in the plans; however, it shall approach or exceed the acreage specified in the permit.

Vegetation Monitoring

Permanent straight line sampling transects shall be established, plotted onto project drawings and a current aerial photograph of the site, across each proposed plant community of the mitigation site. Sufficient transects shall be established to provide full representation of all plant communities within the site, which might include more than one of each type. Each transect shall consist of a series of 1.0 square meter quadrats (no fewer than 10) at regular or random intervals (5-10m suggested interval). The number of quadrats depends on system complexity and the size of each plant community for which credit is sought. A rough guideline is 2 quadrats per acre in each plant community as a minimum. The plant sampling shall be done in May/June and August/September each year following the initial planting, throughout the monitoring period. Data shall be reported by plant community, and by transect. A total plant species list should be compiled over the entire site for which credit is sought. Data may be summarized by plant community for which credit is sought in monitoring reports, however, the full sampling data should be provided in an appendix to the annual monitoring report. Species dominance shall be determined by calculating importance values, with at least the following two parameters: frequency and percent cover. Absolute percent aerial cover data should be reported, though the frequency and cover may be relativized to calculate Importance Values (e.g. RF + RC = IV).

Monitoring Reports

1. The Chicago District shall determine the information to be included in monitoring reports. This information shall be sufficient for the Chicago District to determine how the compensatory mitigation project is progressing towards meeting its performance standards,

and may include plans (such as as-built plans), maps, and photographs to illustrate site conditions. Monitoring reports may also include the results of functional, condition, or other assessments used to provide quantitative or qualitative measures of the functions provided by the compensatory mitigation project site.

2. The permittee or sponsor is responsible for submitting monitoring reports in accordance with the special conditions of the DA permit or the terms of the instrument. Failure to submit monitoring reports in a timely manner may result in compliance action by the Chicago District.

3. Monitoring reports shall be provided by the Chicago District to interested federal, tribal, state, and local resource agencies, and the public, upon request.

Adaptive Management

1. If the compensatory mitigation project cannot be constructed in accordance with the approved mitigation plans, the permittee or sponsor shall notify the Chicago District. A significant modification of the compensatory mitigation project requires approval from the Chicago District.

2. If monitoring or other information indicates that the compensatory mitigation project is not progressing towards meeting its performance standards as anticipated, the responsible party shall notify the Chicago District as soon as possible. The Chicago District will evaluate and pursue measures to address deficiencies in the compensatory mitigation project. The Chicago District will consider whether the compensatory mitigation project is providing ecological benefits comparable to the original objectives of the compensatory mitigation project.

3. The Chicago District, in consultation with the responsible party (and other federal, tribal, state, and local agencies, as appropriate), will determine the appropriate measures. The measures may include site modifications; design changes, revisions to maintenance requirements, and revised monitoring requirements. The measures shall be designed to ensure that the modified compensatory mitigation project provides aquatic resource functions comparable to those described in the mitigation plan objectives.

4. Performance standards may be revised in accordance with adaptive management to account for measures taken to address deficiencies in the compensatory mitigation project. Performance standards may also be revised to reflect changes in management strategies and objectives if the new standards provide for ecological benefits that are comparable or superior to the approved compensatory mitigation project. No other revisions to performance standards will be allowed except in the case of natural disasters.

Long Term Management

1. The applicant shall submit a long term management strategy with an associated financial assurance plan for Chicago District approval prior to authorization. The strategy shall include a description of long-term management needs, annual cost estimates for those needs, and identify the funding mechanism that will be utilized to meet the needs. The applicant shall also identify the entity responsible (and provide supporting documentation, e.g. agreement or letter of intent) for the ownership and long-term management of the site. Identifying the responsible entity prior to permit issuance will aid in the processing of the instrument. It is preferred that the proposed long term manager or organization have expertise in executing adaptive management procedures. Applicants shall establish agreements for long-term management with public or private conservation organizations with final approval of the Chicago District.

2. All land, including associated uplands, which are part of the mitigation site shall be protected from future development by a permanent conservation easement, deed restriction or other real estate instruments as deemed appropriate by the Chicago District. This easement or deed restriction, along with a map of the site, shall be recorded with the appropriate county register of deeds, attached to the abstract of title, with a certified copy of the registration provided to the Chicago District prior to authorization.

Compliance Signoff

The Chicago District will issue final approval at the end of the management and monitoring period if the mitigation is in compliance and the Long Term Manager has been established for the site. The Long Term Manager shall provide supporting documentation stating their acceptance of the site in perpetuity. To be successful, the mitigation shall demonstrate the characteristics specified in the approved mitigation plan, the stated goals, and the Mitigation Requirements. Failure to comply with all the terms and conditions of a Department of the Army permit, including the mitigation plan and Mitigation Requirements, at any time may result in suspension and/or revocation of the permit and additional enforcement actions. The Corps may issue early compliance signoff if the required performance standards have been met. If the mitigation fails, the permittee will be required to determine the cause of the failure and to correct the error at the mitigation site, or to conduct additional mitigation activities.

The TOLLWAY shall also be responsible for successful completion and submittal of the required Special Condition project documentation to the Illinois Environmental Protection Agency, as listed in Item Number 8 of the IEPA October 16, 2013, Water Quality Certification.

REFERENCES

Hillsborough County Public Works Department. 2006. Stormwater Facility Maintenance Manual. Available at:
http://www.hillsborough.wateratlas.usf.edu/ccdpm/CanalStudy/Preventative%20Measures/Appendix%20A/SW%20Maintenance%20Manual.PDF

Illinois Environmental Protection Agency.2013.General NPDES Permit No. ILR10. Available at:
http://www.epa.state.il.us/water/permits/storm-water/general-construction-permit.pdf

Kane County Technical Reference Manual. Available at:
http://www.countyofkane.org/FDER/Documents/waterOrdinances/technicalManual.pdf

Metcalf and Eddy. 1989. Separate **Sanitary Sewer** Collection System Operation and **Maintenance** Manual for Local Agencies Tributary to the Metropolitan Sanitary **District** of Greater Chicago. Available at:
https://www.mwrd.org/irj/portal/anonymous/Infiltration

Montgomery County Department of Environmental Protection. 1999. *Maintaining Urban Stormwater Facilities: A Guidebook for Common Ownership Communities.* Available at:
http://www6.montgomerycountymd.gov/ocptmpl.asp?url=/content/ocp/ccoc/ccoc_index.as

New England Interstate Water Pollution Control Commission (NEIWPCC).2003. Operation, Maintenance and Rehabilitation Techniques, Chapter 7, Optimizing Operation, Maintenance, and Rehabilitation of Sanitary Sewer Collection Systems. Available at:
http://www.neiwpcc.org/neiwpcc_docs/WEBOM&R.CH7.pdf

Santa Clara Valley Urban Runoff Pollution Prevention Program. 2005. *Example BMP Inspection and Maintenance Checklist. Available at:* www.scvurppp-w2k.com/bmp_om_forms.htm

US Environmental Protection Agency. 2000. "Collection Systems Technology Fact Sheet: Sewers, Lift Stations." Available at:
http://water.epa.gov/scitech/wastetech/upload/2002_06_28_mtb_sewers-lift_station.pdf

US Environmental Protection Agency. 2005. Guide for Evaluating Capacity, Management, Operation, and Maintenance Programs for Sanitary Sewer Collection Systems. Available at:
http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf

Water Environment Federation. 1998. *Urban Runoff Quality Management*. WEF Manual of Practice No. 23, ASCE Manual and Report on Engineering Practice No. 87.

APPENDIX 28

Compliance Documentation –
Pollution Prevention/Good Housekeeping

Home
Village Information
Mayor's Message
Event Calendar
Meetings & Minutes
Board Meeting Agendas
FAQ / Help
Departments
Emergency & Health
Village Code
F.O.I.A. Form
Comp. Plan Update
Links & Resources
Recreation & Services
Bids and RFPs
Contact Us
Employment
Check Registers
Community Calendars
Public Safety Bulletin
Building Department
Business License
Real Estate Transfer Tax
Online Forms

Search

PRINTER FRIENDLY VERSION

Get Adobe Reader

FAQ / Help

General

General

Q Who can I contact about snow shoveling services?

A The Village maintains a list of individuals who are available to aid residents with snow removal.

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Q How do I dispose of Household Hazardous Waste?

A There as several facilities in the metropolitan area that will accept household hazardous waste. There are also local one day collection events throughout the year at various locations. More information about the facilities and collection events may be found at the Illinois EPA website.

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Q Where can I get information about O'Hare Airport issues such as noise complaints?

A The Village of Harwood Heights is a member of the O'Hare Noise Compatibility Commission. This group works to mitigate problems caused by aircraft noise. More information can be found at the following websites:

www.oharenoise.org

www.flychicago.com

O'Hare Community Noise Resource Center

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Can't find what you're looking for?

Click here to contact us with questions.

VILLAGE OF HARWOOD HEIGHTS
7300 W. Wilson
Harwood Heights, Il. 60706

Office - 708-867-7200
Fax - 708-867-3038

NPDES Permit No. ILG870410

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
www.epa.state.il.us

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit
For
Pesticide Application Point Source Discharges

Expiration Date: October 30, 2016

Issue Date: October 31, 2011

Effective Date: October 31, 2011

In compliance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board and Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter 1), and the Clean Water Act, and the regulations thereunder the following discharges are authorized by this permit in accordance with the conditions and attachments herein.

This permit is available to operators who discharge to waters of the State from the application of biological pesticides or chemical pesticides that leave a residue, when the pesticide application is for one of the following pesticide use patterns:

1. Mosquito and Other Insect Pest Control
2. Weed and Algae Pest Control
3. Animal Pest Control
4. Forested Areas Pest Control
5. Other Pest Control Activities

Discharges may be authorized to any surface water of the State excluding waters identified as impaired by that pesticide or its degradates. This permit does not authorize discharges, to any waters of the State which are designated as a outstanding resource water by the Agency in accordance with 35 Ill. Adm. Code 302.105(b).

To receive authorization to discharge under this general permit, an operator must submit the proper application form to the Illinois Environmental Protection Agency. Authorization, if granted, will be by letter and include a copy of this permit.

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

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0 Coverage under this Permit

This permit covers any operator that meets the eligibility requirements identified in Part 1.1 and if so required, submits a Notice of Intent (NOI) in accordance with Part 1.2.

For the purpose of this permit, all operators are defined in Appendix A to be:

a. The person(s) with control over the hiring of a contract applicator, or making the decision to perform pesticide applications, including the ability to modify those decisions, that results in a discharge to waters of the State, and/or

b. The person(s) who performs the application of pesticides or who has day-to-day control of the pesticide application, that results in a discharge to waters of the State.

If the operator under part "a" of the definition is different than the operator actually performing the application of pesticides, only one of the two is required to obtain coverage under this permit.

This permit is not applicable for general use or restricted use pesticides that under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), are not registered for application to or use in waters of the State.

Pursuant to section 12(f) of the Illinois Environmental Protection Act, no permit shall be required for any discharge for which a permit is not required under the Federal Water Pollution Control Act.

1.1 Eligibility

1.1.1 Activities Covered

This permit is available to operators who discharge to waters of the State from the application of (1) biological pesticides or (2) chemical pesticides that leave a residue (collectively called pesticides), when the pesticide application is for one of the following pesticide use patterns:

1. **Mosquito and Other Insect Pest Control** – to control public health/nuisance and other insect pests that develop or are present during a portion of their life cycle in or above standing or flowing water. Public health/nuisance and other insect pests in this use category include but are not limited to mosquitoes and black flies.

2. **Weed and Algae Pest Control** – to control weeds, algae, and pathogens that are pests in water and at water's edge, include but are not limited to ditches and/or canals.

3. **Animal Pest Control** – to control animal pests in water and at water's edge. Animal pests in this use category include, but are not limited to fish, lampreys, insects, mollusks, and pathogens.

4. **Forested Areas Pest Control** – application of a pesticide to a forested area to control the population of a pest species, (e.g., insect or pathogen) where, to target the pests effectively, a portion of the pesticide unavoidably will be applied over and deposited to water.

5. **Other Pest Control Activities** – any application of pesticides not identified above, which leave a residue, to waters of the State or at the water's edge.

A portion of every application of a pesticide over a water of the State will fall directly into the water of the State thereby requiring coverage under an NPDES permit. Any person who wishes to contest this determination must submit scientific data to prove that no quantity of the pesticide falls into a water of the State. A permit may not be necessary if IEPA receives scientific information which convinces the Agency that no portion of a chemical pesticide applied over a water of the State will fall into the water of the State.

A portion of every application of a pesticide into a water of the State will leave a residue in the water of the State thereby requiring coverage under an NPDES permit. Any person who wishes to dispute this determination must submit scientific data to prove that no quantity of the pesticide will remain as a residue in a water of the State. This information should include data to show what level of the pesticide can be detected in water, and at what level in

water the pesticide provides a pesticidal benefit. Such data should address the properties of the chemical pesticide under different water conditions (e.g., different pH, organic content, temperature, depth, etc.) that might affect the pesticide's properties. A permit may not be necessary if IEPA receives scientific information that convinces the Agency that a chemical pesticide applied into a water of the State will not remain as a residue in the water of the State.

1.1.2 Limitations on Coverage

1.1.2.1 Discharges to Water Quality Impaired Waters

Operators are not eligible for coverage under this permit for any discharges from a pesticide application to waters of the State if the water is identified as impaired by a substance which either is an active ingredient in that pesticide or is a degradate of such an active ingredient. For purposes of this permit, impaired waters are those that have been identified by the State pursuant to Section 303(d) of the Clean Water Act (CWA) as not meeting applicable State water quality standards or not meeting the intended use of the water body. Impaired waters for the purposes of this permit may include both waters with USEPA-approved or USEPA-established Total Maximum Daily Loads (TMDLs) and waters for which USEPA has not yet approved or established a TMDL. A list of the 303(d) waters is available on the Internet at www.epa.state.il.us/water/permits/pesticide/303d.html. If a discharge from a pesticide application would not be eligible under this permit because the water is listed as impaired for that specific pesticide, but there is evidence that shows the water is no longer impaired, operators may submit this information to IEPA and request that coverage be allowed under this permit.

1.1.2.2 Discharges to Waters Designated as Outstanding Resource Waters for Antidegradation Purposes

Operators are not eligible for coverage under this permit for discharges from a pesticide application to waters designated by the State as Outstanding Resource Waters for anti-degradation purposes under 35 Ill. Adm. Code 302.105(b).

1.2.3 Discharges Currently or Previously Covered by another Permit

Pesticide discharges are not eligible for coverage under this permit if any of the following circumstances apply:

a. The discharge is covered by another NPDES permit, or

b. The discharge was included in a permit that in the past 5 years has been or is in the process of being denied, terminated, or revoked by IEPA (this does not apply to the routine reissuance of permits every 5 years).

1.2 Authorization to Discharge under This Permit

1.2.1 How to Obtain Authorization

To obtain authorization under this permit, an operator must:

a. Meet the eligibility requirements identified in Part 1.1, and

b. Submit a complete and accurate Notice of Intent (NOI) consistent with the requirements of Parts 1.2.2 and 1.2.3.

1.2.2 Operators Required to Submit a Notice of Intent

The following operators are required to submit a Notice of Intent to obtain coverage under this general permit for discharges to waters of the State resulting from the application of pesticides:

a. Person(s), group, or entity with control over the hiring of a contract applicator, or making the decision to perform pesticide application, that will result in a discharge to waters of the State; or

b. Person(s), group, or entity performing the application of pesticides, that will result in a discharge to waters of the State.

Operators must submit an NOI to IEPA electronically. Operators should refer to www.epa.state.il.us/water/permits/pesticide/index.html for instruction on submitting the NOI. IEPA will post on the Internet, at www.epa.state.il.us/water/permits/pesticide/notices.html, all NOIs received. Late NOIs will be accepted, but authorization to discharge will not be retroactive. NOI submissions must be in accordance with the deadlines in Part 1.2.3.

Coverage will be available for the duration of the permit for operators who file an NOI, including the operator's employees, contractors, subcontractors, and other agents, for all activities identified on the NOI unless coverage is terminated pursuant to Parts 1.2.5 or 1.3. If a submitted NOI is not timely, accurate, or complete, then any employee, contractor, subcontractor or other entity that discharges without the required NOI is not covered by this permit.

The NOI form is available on the Internet at www.epa.state.il.us/water/permits/pesticide/forms.html.

1.2.3 Discharge Authorization Date

Unless modified, exempted, or stayed by legislative action or court order, discharges to waters of the State as a result of pesticide applications must be authorized under an NPDES permit. Operators that are eligible for coverage under Part 1.1 are authorized to discharge under this permit consistent with the NOI submission and the Table 1 below.

Table 1. Original NOI Submittal Deadlines and Discharge Authorization Date

Category	NOI Submittal Deadline	Discharge Authorization Date
Operators are required to submit an NOI prior to commencement of discharge.	At least 14 days prior to commencement of discharge.	No earlier than 14 days after IEPA posts on the Internet the receipt of the complete and accurate NOI.
Operators commencing discharge in response to a declared pest emergency situation as defined in Appendix A.	No later than 30 days after commencement of discharge.[1]	Immediately, for activities conducted in response to declared pest emergency situation.

To remain authorized, all operators must submit NOI changes, as necessary, consistent with Table 2 below.

Table 2. NOI Change of Information Submittal Deadlines and Discharge Authorization Date

Category	NOI Submittal Deadline	Discharge Authorization Date
Operators requiring permit coverage for a new use pattern or for a treatment area not within the pest management area, previously identified on a NOI submitted to IEPA.	At least 14 days prior to commencement of discharge in that newly identified treatment area.	No earlier than 14 days after IEPA posts on the Internet the receipt of the complete and accurate NOI.
Operators requiring permit coverage for a new use pattern or for a treatment area in response to a declared pest emergency situation not within the pest management area, previously identified on a NOI submitted to IEPA.	No later than 30 days after commencement of discharge.[1]	Immediately, for activities conducted in response to declared pest emergency situation.

[1] In the event that a discharge occurs prior to submitting an NOI, the operator must comply with all other requirements of this permit immediately.

Based on a review of the NOI or other information, IEPA may determine that additional technology-based and/or water quality-based effluent limitations are necessary, or deny coverage under this permit and require submission of an application for an individual NPDES permit, as detailed in Part 1.3.

Unless notified by the Agency to submit additional information, operators who submit an NOI in accordance with the requirements of this permit are authorized to discharge under the terms and conditions of this permit 30 days after the date the NOI is received by the Agency.

2.4 Continuation of this Permit

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 40 CFR 122.6 and 35 Ill. Adm. Code, Subtitle C, Chapter I and remain in force and effect. If a permittee was authorized to discharge under this permit prior to the expiration date, any discharges authorized under this permit will automatically remain covered by this permit until the earliest of the following:

a. A permittee is authorized for coverage under a reissued permit or a replacement of this permit, following the timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and in compliance with the requirements of the NOI;

b. The permittee submits a Notice of Termination (NOT) and that notice is processed consistent with Part 1.2.5.1;

c. An individual NPDES permit for a discharge resulting from application of a pesticide that would otherwise be covered under this permit is issued or denied;

d. IEPA issues a formal permit decision not to reissue this general permit, at which time IEPA will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will cease when coverage under another permit is granted/authorized; or

e. IEPA has informed the permittee that the discharge is no longer covered under this permit.

1.2.5 Terminating Coverage

1.2.5.1 Submitting a Notice of Termination

To terminate permit coverage, a permittee must submit a complete and accurate Notice of Termination. Permittees must submit the Notice of Termination electronically. Permittees should refer to www.epa.state.il.us/water/permits/pesticide/index.html for instruction on submitting the NOT. The authorization to discharge under this permit is terminated the day that a complete Notice of Termination is processed. If a permittee submits a Notice of Termination without meeting one or more of the conditions identified in Part 1.2.5.2, the Notice of Termination is not valid. Permittees are responsible for complying with the terms of this permit until authorization is terminated. If required to submit annual reports pursuant to Part 7, the permittee must file an annual report for the portion of the year up through the date of termination. The annual report shall be submitted with the completed Notice of Termination.

Permittees may not terminate coverage under this permit and reapply in order to remain below the annual treatment area thresholds.

The NOT form is available on the Internet at www.epa.state.il.us/water/permits/pesticide/forms.html.

1.2.5.2 When to Submit a Notice of Termination

A permittee must submit a Notice of Termination within 30 days after one or more of the following conditions have been met:

a. The permittee has ceased all discharges from the application of pesticides for which permit coverage was obtained and the permittee does not expect to discharge during the remainder of the permit term for any of the use patterns as identified in Part 1.1.1; or

b. The permittee has obtained coverage under an individual NPDES permit or an alternative NPDES general permit for all discharges required to be covered by an NPDES permit, unless the permittee obtained coverage consistent with Part 1.3, in which case coverage under this permit will terminate automatically.

1.2.6 Transfer of Permit Coverage

If a new operator takes over responsibility of pest control activities covered under an existing NOI, the new operator must submit the following:

a. A new NOI for the new operator; and

b. A letter from the existing permittee referencing the existing NPDES permit number, date of coverage, and requesting transfer of the permit.

1.3 Alternative Permits

1.3.1 Requiring Coverage under an Alternative Permit

In accordance with 40 CFR 122.64, 40 CFR 124.5, and 35 Ill. Adm. Code, Subtitle C, Chapter I, IEPA may require operators to apply for and/or obtain authorization to discharge under either an individual NPDES permit or an alternative NPDES general permit.

If IEPA requires an operator to apply for an individual NPDES permit, IEPA will notify the operator in writing that a permit application is required. This notification will include a brief statement of the reasons for the decision and will provide application information. In addition, for permittees whose discharges are authorized under this permit, any notice will set a deadline to file the permit application and will include a statement that on the effective date of the individual NPDES permit, coverage under this general permit will terminate. IEPA may grant additional time to submit the application if the operator submits a request setting forth reasonable grounds for additional time. If covered under this permit and the permittee fails to submit an individual NPDES permit application as required by IEPA, the applicability of this permit to such permittee is terminated at the end of the day specified by IEPA as the deadline for application submittal. IEPA may take enforcement action for any unpermitted discharge or violation of any permit requirement.

1.3.2 Operator Requesting Coverage under an Alternative Permit

If an operator does not want to be covered by this general permit, but needs permit coverage, the operator can apply for an individual NPDES permit. In such a case, the operator must submit an individual permit application in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request, to IEPA. The request may be granted by issuance of an individual NPDES permit or authorization of coverage under an alternative NPDES general permit.

When an individual NPDES permit is issued, or the operator is authorized under an alternative NPDES general permit to discharge a pollutant to waters of the State as a result of a pesticide application, authorization to discharge under this permit is terminated on the effective date of the individual NPDES permit or the date of authorization of coverage under the alternative NPDES general permit.

1.4 Severability

Invalidation of a portion of this permit does not render the whole permit invalid. IEPA's intent is that the permit will remain in effect to the extent possible; if any part of this permit is invalidated, the remaining parts of the permit will remain in effect unless IEPA issues a written statement stating otherwise.

1.5 Other Federal and State Laws

Permittees must comply with all other applicable federal and state laws and regulations that pertain to application of pesticides. For example, this permit does not relieve the permittee of the responsibility of complying with the requirements or provisions of the Federal Insecticide, Fungicide, and Rodenticide Act and its implementing regulations to use registered pesticides consistent with the product's labeling. In fact, applications in violation of certain FIFRA requirements could also be a violation of this permit and therefore a violation of the CWA (e.g. exceeding label application rates). Additionally, other laws and regulations might apply to certain activities that are also covered under this permit (e.g., United States Coast Guard regulations).

1.6 Endangered Species Compliance

The location of the treatment areas must be submitted to the Illinois Department of Natural Resources (IDNR) EcoCAT website to determine if protected natural resources are in the vicinity, www.dnrecocat.state.il.us/ecopublic. Consultation with the Department is required under the Illinois Endangered Species Protection Act, 520 ILCS

10/11(b) and the Illinois Natural Areas Preservation Act, 525 ILCS 30/17, for all permittees covered by this permit unless exempted below.

The following applications are exempt from consultation unless there will be an adverse impact to a listed species or its essential habitat or to a Natural Area:

1. Per consultation regulations (17 Ill. Adm. Code, Part 1075) – annual, routine cultivation of existing agricultural lands; and maintenance of existing lawns, yards and ornamental plantings.

2. Per a Memorandum of Understanding between IEPA and IDNR – microbial larvicide applied to catch basins and storm sewers.

1.7 Reopener Clause

If there is evidence indicating potential or realized adverse impacts on water quality due to any pesticide discharge covered by this permit, the permittee may be required to obtain an individual permit or an alternative general permit in accordance with Section 1.3.1 of this permit or the permit may be modified to include different limitations and/or requirements.

Permit modification or revocation will be conducted according to provisions of 35 Ill. Adm. Code, Subtitle C, Chapter I and the provisions of 40 CFR 122.62, 122.63, 122.64, and 124.5 and any other applicable public participations procedures.

The Agency will reopen and modify this permit under the following circumstances:

a. The USEPA amends its regulations concerning public participation;

b. A court of competent jurisdiction binding in the State of Illinois or the 7th Circuit issues an order necessitating a modification of public participation for general permits; or

c. To incorporate federally required modifications to the substantive requirements of this permit.

2.0 Technology-Based Effluent Limitations

This part includes technology-based effluent limitations applicable to all permittees for any discharge authorized under this permit, with compliance required upon beginning such discharge. If the permittee is not the applicator, the technology-based effluent limitations are also applicable to the contract applicator.

If a permittee's discharge of pollutants results from the application of pesticides that is being used solely for the purpose of "pesticide research and development," as defined in Appendix A, the permittee must use such pesticide consistent with any applicable research plan and experimental use permit.

As stated in Part 1.5, this permit required all permittees to comply with other applicable federal or state laws and regulations that pertain to application of pesticides by the permittee.

2.1 Level 1: Technology- Based Effluent Limitations

All permittees must meet Level 1 of the technology-based effluent limitations in Part 2.1 to minimize the discharge of pesticides to waters of the State from the application of pesticides, through the use of Pest Management Measures, as defined in Appendix A. If the permittee is not the applicator, the Level 1 technology-based effluent limitations are also applicable to the contract applicator.

2.1.1 Use only the amount of pesticide and frequency of pesticide application necessary to control the target pest, using equipment and application procedures appropriate for this task.

2.1.2 Maintain pesticide application equipment in proper operating condition, including the requirement to calibrate, clean, and repair such equipment and prevent leaks, spills, or other unintended discharges.

1.3 Assess weather conditions (e.g. temperature, precipitation and wind speed) in the treatment area to ensure application is consistent with all applicable federal and state requirements.

2.2 Level 2: Technology-Based Effluent Limitations

Level 2 of the technology-based effluent limitations applies to permittees which exceed one or more of the annual (i.e. calendar year) treatment area threshold(s) listed in Table 3 below, as defined in Appendix A. If the permittee is not the applicator, the Level 2 technology-based effluent limitations are also applicable to the contract applicator.

Table 3. Annual Treatment Area Threshold

Section	Pesticide Use	Annual Threshold
2.2.1	Mosquitoes and Other Insect Pest Control	
	- Adult Mosquitoes and Other Insect Pests	6,400 acres of treatment area
	- Mosquito and Other Insect Aquatic Larviciding	80 acres of treatment area (i.e. surface area)
2.2.2	Weed and Algae Pest Control	
	- In Water	80 acres of treatment area (i.e. surface area)
	- At Water's Edge	20 linear miles of treatment area
2.2.3	Animal Pest Control	
	- In Water	80 acres of treatment area (i.e. surface area)
	- At Water's Edge	20 linear miles of treatment area
2.2.4	Forested Area Pest Control	6,400 acres of treatment area
2.2.5	Other Pest Control Activities	
	- Ground or Aerial	6,400 acres of treatment area
	- In Water	80 acres of treatment area (i.e. surface area)
	- At Water's Edge	20 linear miles of treatment area

For calculating the annual treatment area, count each treatment area only once, regardless of the number of pesticide application activities when applying with the same pesticide product. For example, applying pesticides 3 times a year to the same 3,000 acre site using the same pesticide product, the annual treatment area should be counted as 3,000 acres. If a different pesticide product is applied to the same treatment area, these activities would be counted as separate treatment areas for each different pesticide product. For example, applying pesticides 3 times a year to the same 3,000 acre site using a different pesticide product each time the annual treatment area should be counted as 9,000 acres.

For linear features (e.g., a canal or ditch) use the length of the linear feature whether treating in or adjacent to the feature. For example, when treating the bank on one side of a 10 mile long ditch, banks on both sides of the ditch, and/or water in the ditch, the total treatment area is 10 miles.

2.2.1 Mosquito and Other Insect Pest Control

This part applies to discharges from the application of pesticides for mosquito and other insect pest control as defined in Part 1.1.1.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Establish densities for larval and adult mosquitoes or other insect pest populations or identify environmental condition(s), either current or based on historical data, to serve as action threshold(s) for implementing Pest Management Measures;

2. Identify target pest(s) to develop Pest Management Measures based on developmental and behavioral considerations for each pest;

3. Identify known breeding sites for source reduction, larval control program, and habitat management;

4. Analyze existing surveillance data to identify new or unidentified sources of mosquito or other insect pest problems as well as sites that have recurring pest problems; and

5. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.1.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control mosquitoes or other insect pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical or physical methods
4. Cultural methods
5. Biological control agents
6. Pesticides

c. Pesticide Use

If a pesticide is selected to manage mosquitoes or other insect pests and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct larval and/or adult surveillance in an area that is representative of the pest problem or evaluate existing larval surveillance data, environmental conditions, or data from adjacent areas prior to each pesticide application to assess the pest management area and to determine when action threshold(s) is met;

2. Reduce the impact on the environment and on non-target organisms by applying the pesticide only when the action threshold(s) has been met;

3. In situations or locations where practicable and feasible for effective control, use larvicides as a preferred pesticide for mosquito or other insect pest control when the larval action threshold(s) has been met; and

4. In situations or locations where larvicide use is not practicable or feasible for efficacious control, use adulticides for mosquito or other insect pest control when the adult action threshold(s) has been met.

2.2.2 Weed and Algae Pest Control

This part applies to discharges from the application of pesticides for weed, algae, and pathogens as defined in Part 1.1.1.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Identify areas with pest problems and characterize the extent of the problems, including, for example, water use goals not attained (e.g. wildlife habitat, fisheries, vegetation, and recreation);

2. Identify target pest(s);

3. Identify possible factors causing or contributing to pest problem (e.g., nutrients, invasive species, etc);

4. Establish any pest-specific and site-specific action threshold(s), as defined in Appendix A , for implementing Part 2.2.2.b; and

5. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.2.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical or physical methods
4. Cultural methods
5. Biological control agents
6. Pesticides

c. Pesticide Use

If a pesticide is selected to manage pests and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct surveillance in an area that is representative of the pest problem prior to each pesticide application to assess the pest management area and to determine when the action threshold(s) is met; and

2. Reduce the impact on the environment and non-target organisms by applying the pesticide only when the action threshold(s) has been met.

2.2.3 Animal Pest Control

This part applies to discharges from the application of pesticides for control of animal pests as defined in Part 1.1.1.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Identify areas with pest problems and characterize the extent of the problems, including, for example, water use goals not attained (e.g. wildlife habitat, fisheries, vegetation, and recreation);

2. Identify target pest(s);

3. Identify possible factors causing or contributing to the problem (e.g., nutrients, invasive species);

4. Establish any pest-specific and site-specific action threshold(s), as defined in Appendix A, for implementing Part 2.2.3.b; and

5. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.3.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each year thereafter prior to the first pesticide application during that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical or physical methods
4. Biological control agents
5. Pesticides

c. Pesticide Use

If a pesticide is selected to manage pests and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct surveillance in an area that is representative of pest problem prior to each application to assess the pest management area and to determine when the action threshold(s) is met:; and

2. Reduce the impact on the environment and non-target organisms by evaluating site restrictions, application timing, and application method in addition to applying the pesticide only when the action threshold(s) has been met.

.2.4 Forested Area Pest Control

This part applies to discharges from the application of pesticides for forested area pest control as defined in Part 1.1.1.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application in that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Establish any pest-specific and site-specific action threshold(s), as defined in Appendix A, for implementing Part 2.2.4.b;

2. Identify target pest(s) to develop a Pest Management Measures based on developmental and behavioral considerations for each pest;

3. Identify current distribution of the target pest and assess potential distribution in the absence of Pest Management Measures; and

4. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.4.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a

combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical/physical methods
4. Cultural methods
5. Biological control agents
6. Pesticides

c. Pesticide Use

If a pesticide is selected to manage forestry pests and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct surveillance in an area that is representative of the pest problem prior to each application to assess the pest management area and to determine when the pest action threshold(s) is met;

2. Reduce the impact on the environment and non-target organisms by evaluating the restrictions, application timing, and application methods in addition to applying the pesticide only when the action threshold(s) have been met; and

3. Evaluate using pesticides against the most susceptible developmental stage.

2.2.5 Other Pest Control Activities

This part applies to discharges from the application of pesticides not identified in Parts 2.2.1, 2.2.2, 2.2.3, or 2.2.4.

a. Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application in that calendar year, the permittee must do the following for each pest management area, as defined in Appendix A:

1. Establish any pest-specific and site-specific action threshold(s), as defined in Appendix A, for implementing Part 2.2.5.b;

2. Identify target pest(s) to develop Pest Management Measures based on developmental and behavioral considerations for each pest;

3. Identify current distribution of the target pest and assess potential distribution in the absence of Pest Management Measures; and

4. In the event there is no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions of Part 2.2.5.a.

b. Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the permittee must select and implement efficient and effective means of Pest Management Measures that minimize discharges resulting from application of pesticides to control pests. In developing the Pest Management Measures for each pest management area, the permittee must evaluate the following management options, including a combination of these management options, considering impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness:

1. No action
2. Prevention
3. Mechanical/physical methods

4. Cultural methods
5. Biological control agents
6. Pesticides

c. Pesticide Use

If a pesticide is selected to manage other activities not covered under the other four use patterns and application of the pesticide will result in a discharge to waters of the State, the permittee must:

1. Conduct surveillance in an area that is representative of the pest problem prior to each application to assess the pest management area and to determine when the pest action threshold(s) is met;

2. Reduce the impact on the environment and non-target organisms by evaluating the restrictions, application timing, and application methods in addition to applying the pesticide only when the action threshold(s) have been met; and

3. Evaluate using pesticides against the most susceptible developmental stage.

3.0 Water Quality-Based Effluent Limitations

All permittees must control discharges as necessary to meet applicable numeric and narrative State water quality standards, for any discharge authorized under this permit, with compliance required upon the beginning of such discharge. Discharges covered by this permit, alone or in combination with other sources, shall not cause a violation of any applicable water quality standards outlined in 35 Ill. Adm. Code 302, in light of the provisions of 35 Ill. Adm. Code 302.210(g).

If at any time a permittee becomes aware (e.g., through self-monitoring or by notification from the State), or IEPA determines, that the discharge causes or contributes to an excursion of applicable water quality standards, the permittee must take corrective action as required in Part 6, up to and including the ceasing of the discharge, if necessary.

4.0 Monitoring

4.1 Visual Monitoring Requirements

During any pesticide application or post-application surveillance of any pesticide application with discharges authorized under this permit, all permittees must, when considerations for safety and feasibility allow and while observing reentry periods for pesticides application, visually assess the area to and around where pesticides are applied for possible and observable adverse incidents, as defined in Appendix A, caused by application of pesticides, including the unanticipated death or distress of non-target organisms and disruption of wildlife habitat, recreational or municipal water use.

If the permittee is not the applicator, this section is also applicable to the contract applicator.

5.0 Pesticide Discharge Management Plan

Permittees which exceed one or more of the annual treatment area thresholds listed in Table 3 must prepare and submit a Pesticide Discharge Management Plan (PDMP). This section does not apply to the following:

1. Any application made in response to a declared pest emergency situation, as defined in Appendix A.

2. Permittees who meet the definition of a small entity, as defined in Appendix A.

3. Permittees conducting pesticide application activities pursuant to the Vector Control Act (410 ILCS 95) which are funded by, conducted in accordance with, or under the supervision of the Illinois Department of Public Health or an associated municipal, county or regional department of public health or public health district.

For the first year of the permit the PDMP must be submitted 90-days after the date of coverage under this permit. After October 31, 2012, the PDMP and all supporting documents must be submitted with the NOI. The PDMP must be submitted electronically in Adobe Acrobat format to epa.ILG87pestPDMP@illinois.gov.

The plan must be kept up-to-date thereafter for the duration of coverage under this general permit, even if the discharges subsequently fall below the applicable treatment area thresholds listed in Table 3.

The PDMP does not contain effluent limitations as the effluent limitations are specified in Parts 2 and 3 of the permit. The PDMP documents how the permittee will implement the effluent limitations in Parts 2 and 3 of the permit, including the evaluation and selection of Pest Management Measures to meet those effluent limitations in order to minimize discharges. In the PDMP, the permittee may incorporate by reference any procedures or plans in other documents that meet the requirements of this permit. If the permittee relies upon other documents to comply with the effluent limitations in this permit, such as a pre-existing pest management plan, the permittee must attach to the PDMP a copy of any portions of any documents that are used to document the implementation of the effluent limitations.

5.1 Contents of the Pesticide Discharge Management Plan

The PDMP must include the following elements:

a. Pesticide Discharge Management Plan Team
b. Problem Identification
c. Pest Management Options Evaluation
d. Response Procedures
   1. Spill Response Procedures
   2. Adverse Incident Response Procedures
e. Signature Requirements

5.1 PDMP Team

Permittees must identify all persons (by name and contact information) that compose the team as well as each person's individual responsibilities, including:

a. Person(s) responsible for managing pests in relation to the pest management area;

b. Person(s) responsible for developing and revising the PDMP; and

c. Person(s) responsible for developing, revising, and implementing corrective actions and other effluent limitation requirements.

5.1.2 Problem Identification

Permittees must document the following:

a. Pest problem description. Document a description of the pest problem at the pest management area, including identification of the target pest(s), source(s) of the pest problem, and source of data used to identify the problem in Parts 2.2.1, 2.2.2, 2.2.3, 2.2.4, and 2.2.5.

b. Action Threshold(s). Describe the action threshold(s) for the pest management area, including the data used in developing the action threshold(s) and method(s) to determine when the action threshold(s) has been met.

c. General location map. In the plan, include a general location map (e.g., USGS quadrangle map, a portion of a city or county map, or other map) that identifies the geographic boundaries of the area to which the plan applies and location of the waters of the State.

d. Water quality standards. Document any water(s) identified as impaired by a substance which either is an active ingredient or a degradate of such an active ingredient.

5.1.3 Pest Management Options Evaluation

Permittees must document the evaluation of the pest management options, including combination of the pest management options, to control the target pest(s). Pest management options include the following: No action, prevention, mechanical/physical methods, cultural methods, biological control agent, and pesticides. In the evaluation, permittees must consider the impact to water quality, impact to non-target organisms, feasibility, cost effectiveness, and any relevant previous Pest Management Measures.

5.1.4 Response Procedures

Permittees must document the following procedures in the PDMP:

a. Spill Response Procedures – At a minimum, the permittees must have:

1. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases to waters of the State. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of the PDMP team.

2. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.

b. Adverse Incident Response Procedures – At a minimum, the permittees must have:

1. Procedures for responding to any adverse incident resulting from pesticide applications.

2. Procedures for notification of the adverse incident, both internal to the permittee agency/organization and external. Contact information for State permitting agency, nearest emergency medical facility, and nearest hazardous chemical responder must be in locations that are readily accessible and available.

5.1.5 Signature Requirements

Permittees must sign, date and certify the PDMP in accordance with Appendix B.

5.2 Pesticide Discharge Management Plan Modifications

Permittees must modify the PDMP whenever necessary to address any of the conditions for corrective action in Part 6.1 or when a change in pest control activities significantly changes the type or quantity of pollutants discharged. Changes to the PDMP must be made before the next pesticide application that results in a discharge, if practicable, or if not, no later than 90 days after any change in pesticide application activities. The revised PDMP must be signed and dated in accordance with Appendix B. Permittees must submit the modified PDMP electronically to epa.ILG87pestPDMP@illinois.gov.

5.3 Pesticide Discharge Management Plan Availability

Permittees must retain a copy of the current PDMP, along with all supporting maps and documents, at the address provided on the NOI. The PDMP and all supporting documents must be readily available and copies of any of these documents provided, upon request, to IEPA or to any local agency governing discharges or pesticide applications within their respective jurisdictions; and to representatives of any federal or state agencies. IEPA may provide copies of the PDMP or other information related to this permit that is in its possession to members of the public. Any Confidential Business Information (CBI), as defined in 40 CFR Part 2, may be withheld from the public provided that a claim of confidentiality is properly asserted and documented in accordance with 40 CFR Part 2; however, CBI must be submitted to IEPA, if requested, and may not be withheld from those staff within IEPA, or any other state or federal agency cleared for CBI review.

0 Corrective Action

All permittees must comply with the provisions of Part 6 for any discharges authorized under this permit, with compliance required upon the beginning of such discharge. If the permittee is not the applicator, this section is also applicable to the contract applicator.

6.1 Situations Requiring Revision of Pest Management Measures

Permittees must review and, as necessary, revise the evaluation and selection of Pest Management Measures consistent with Parts 2.1 and 2.2 for the following situations:

a. An unauthorized release or discharge associated with the application of pesticides (e.g., spill, leak, or discharge not authorized by this or another NPDES permit) occurs.

b. Permittee becomes aware, or IEPA concludes, that Pest Management Measures are not adequate/sufficient for the discharge to meet applicable State water quality standards;

c. Any monitoring activities indicate failure to meet applicable technology-based effluent limitations in Part 2.

d. An inspection or evaluation of activities by IEPA reveals that modifications to the Pest Management Measures are necessary to meet the effluent limitations in this permit.

e. Any permittee observes or is otherwise made aware of an adverse incident, as defined in Appendix A.

6.2 Corrective Action Deadlines

If a permittee determines that changes to the Pest Management Measures are necessary to eliminate any situation identified in Part 6.1, such changes must be made before or, if not practicable, as soon as possible after the next pesticide application that results in a discharge.

6.3 Effect of Corrective Action

The occurrence of a situation identified in Part 6.1 may constitute a violation of the permit. Correcting any situation identified in Part 6.1 does not absolve permittees of liability for any original violation. However, failure to comply with Part 6.2 constitutes an additional permit violation. IEPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.

IEPA may impose additional requirements and schedules of compliance, including requirements to submit additional information concerning the condition(s) requiring corrective action or schedules and requirements more stringent than specified in this permit. Those requirements and schedules will supersede those of Parts 6.1 and 6.2 if such requirements conflict.

6.4 Adverse Incident Documentation and Reporting

6.4.1 Twenty-Four Hour Adverse Incident Notification

6.4.1.1 Adverse Incident Notification Required

If a permittee observes or is otherwise made aware of an adverse incident, as defined in Appendix A, which may have resulted from a discharge from a pesticide application, made by the permittee or a contract applicator, the permittee must immediately notify the Illinois Emergency Management Agency (IEMA) and USEPA, Region 5, Pesticide Program. This notification must be made by telephone within 24 hours of the permittee becoming aware of the adverse incident and must include at least the following information:

a. The caller's name and telephone number;

b. Permittees name and mailing address;

c. NPDES permit number;

d. The name and telephone number of a contact person, if different than the person providing the 24-hour notice;

e. How and when the permittee became aware of the adverse incident;

f. Description of the location of the adverse incident;

g. Description of the adverse incident identified and the pesticide product, including USEPA pesticide registration number, for each product applied in the area of the adverse incident; and

h. Description of any steps the permittee has taken or will take to correct, repair, remedy, clean-up, or otherwise address any adverse effects.

If a permittee is unable to notify IEMA within 24 hours, the permittee must do so as soon as possible and also provide an appropriate rationale why the permittee was unable to provide such notification within 24 hours.

The adverse incident notification and reporting requirements are in addition to what the registrant is required to submit under FIFRA section 6(a)(2) and its implementing regulations at 40 CFR Part 159.

6.4.1.2 Adverse Incident Notification Not Required

Reporting of adverse incidents is not required under this permit in the following situations:

a. A permittee is aware of facts that indicate that the adverse incident was not related to toxic effects or exposure from the pesticide application;

b. A permittee has been notified by IEMA and retains such notification, that the reporting requirement has been waived for this incident or category of incidents;

c. A permittee receives information of an adverse incident, but that information is clearly erroneous; or

d. An adverse incident occurs to pests that are similar in kind to potential target pests identified on the FIFRA label.

6.4.2 Fifteen Day Adverse Incident Written Report

Within fifteen (15) business days of a reportable adverse incident pursuant to Part 6.4.1, permittees must provide a written report of the adverse incident to the IEPA Compliance Assurance Section. Permittees must submit the 15-day adverse incident report electronically to epa.ILG87pest5day@illinois.gov. The adverse incident report must include at least the following information:

a. Information required to be provided in Part 6.4.1;

b. Date and time the permittee contacted IEMA notifying the Agency of the adverse incident, who the permittee spoke with at IEMA, and any instructions received from IEMA;

c. Location of incident, including the names of any waters affected and appearance of those waters (sheen, color, clarity, etc);

d. A description of the circumstances of the adverse incident including species affected, estimated number of individual and approximate size of dead or distressed organisms;

e. Magnitude and scope of the affected area (e.g. estimate aquatic surface area or total stream distance affected);

f. Pesticide application rate; intended use site (e.g., on the bank, above waters, or directly to water), method of application; and name of pesticide product and USEPA pesticide registration number;

g. Description of the habitat and the circumstances under which the adverse incident occurred (including any available ambient water data for pesticides applied);

h. If laboratory tests were performed, an indication of what test(s) were performed, and when; additionally, a summary of the test results within 5 days after they become available if not available at the time of submission of the 15-day adverse incident report;

i. Description of actions to be taken to prevent recurrence of adverse incidents; and

j. Signature, date, and certification in accordance with Appendix B.

The Adverse Incident Report form is available on the Internet at www.epa.state.il.us/water/permits/pesticide/forms.html.

6.4.3 Adverse Incident to Federally Threatened or Endangered Species or Critical Habitat

Notwithstanding any of the other adverse incident notification requirements of this section, if a permittee or contract applicator becomes aware of an adverse incident affecting a federally listed threatened or endangered species or its federally designated critical habitat which may have resulted from a discharge from the permittee's pesticide application, the permittee must immediately notify the United States Fish and Wildlife Service (FWS). This information must be made by telephone, to the contacts listed on USFWS's website at www.fws.gov/offices, immediately upon the permittee becoming aware of the adverse incident, and must include at least the following information:

a. The caller's name and telephone number;

b. Permittee name and mailing address;

c. The name of the affected species;

d. How and when the permittee became aware of the adverse incident;

e. Description of the location of the adverse incident;

f. Description of the adverse incident and the pesticide product, including the USEPA pesticide registration number, for each product applied in the area of the adverse incident, and;

g. Description of any steps the permittee has taken or will take to alleviate the adverse impact to the species.

Additional information on federally listed threatened or endangered species and federally designated critical habitat is available from FWS (www.fws.gov) for terrestrial or freshwater species.

6.5 Reportable Spills and Leaks

6.5.1 Spill, Leak, or Other Unpermitted Discharge Notification

Where a leak, spill, or other release into waters of the State containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs in any 24-hour period, the permittee or contract applicator must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302. The permittee must also notify IEMA at (800) 782-7860. Both of these Agencies shall be notified immediately and as soon as the permittee has knowledge of the release. Contact information must be in locations that are readily accessible and available in the area where the spill, leak, or other unpermitted discharge may occur.

Local requirements may necessitate also reporting spills or leaks to local emergency response, public health, or drinking water supply agencies.

6.5.2 Fifteen-Day Spill, Leak, or Other Unpermitted Discharge Documentation

If a permittee becomes aware of a spill, leak, or other unpermitted discharge which initiates the notification requirements in Part 6.5.1 and results in an adverse incident, then the permittee must report the incident per the requirements in Parts 6.4.1 and 6.4.2. If the spill, leak, or other unpermitted discharges initiates the notification

requirements in Part 6.5.1, but does not result in an adverse incident, then permittee must document and retain the following information within 15 business days of becoming aware of the situation:

a. Information required to be provided in Part 6.5.1

b. Summary of corrective action taken or to be taken including date initiated and date completed or expected to be completed; and

c. Any measures to prevent recurrence of such a spill or leak or other discharge, including notice of whether PDMP modifications are required as a result of the spill or leak.

6.6 Other Corrective Action Documentation

For situations identified in Part 6.1, other than for adverse incidents (addressed in Part 6.4), or reportable spills or leaks (addressed in Part 6.5), permittees must document the situation requiring corrective action and the planned corrective action within fifteen (15) business days of becoming aware of that situation and retain a copy of this documentation. This documentation must include the following information:

a. Identification of the condition requiring the need for corrective action review, including any ambient water quality monitoring that assisted in determining that discharges did not meet water quality standards;

b. Brief description of the situation;

c. Date the problem was identified.

d. Brief description of how the problem was identified, how the permittee learned of the situation, and date the permittee learned of the situation;

e. Summary of corrective action taken or to be taken, including date initiated and date completed or expected to be completed; and

f. Any measures to prevent reoccurrence of such an incident, including notice of whether PDMP modifications are required as a result of the incident.

7.0 Recordkeeping and Annual Reporting

The recordkeeping and annual reporting requirements vary depending on whether a permittee meets the definition of a small entity, as defined in Appendix A, and/or exceeds one or more of the annual treatment area thresholds listed in Table 3.

Permittees must keep written records as required in this permit for all discharges covered under this permit. These records must be accurate and complete to demonstrate the permittees compliance with the conditions of this permit. Permittees may rely on records and documents developed for other obligations, such as requirements under FIFRA, and state or local pesticide programs, provided all requirements of this permit are satisfied.

IEPA recommends that all permittees covered under this permit keep records of acres or linear miles treated for all applicable use patterns covered under this general permit. The records shall be kept up-to-date to help the permittee determine if the annual treatment area thresholds, as identified in Part 2.2, are met during any calendar year.

7.1 Level 1: Recordkeeping

Level 1 recordkeeping applied to all permittees which must keep the following records:

a. A copy of the NOI submitted to IEPA, any correspondence exchanged between the permittee and IEPA specific to coverage under this permit, and a copy of the IEPA acknowledgment letter assigning the permit number;

b. A copy of this permit;

c. A copy of any Adverse Incident Reports (Part 6.4.2);

d. Rationale for any determination that reporting of an identified adverse incident is not required consistent with allowances identified in Part 6.4.1.2;

e. A copy of any corrective action documentation (Part 6.6);

f. A copy of any spill, leak, or other unpermitted discharge documentation (Part 6.5.2); and

g. Endangered Species Compliance Documentation

Permittees conducting pesticide application activities pursuant to the Vector Control Act (410 ILCS 95) which are funded by, conducted in accordance with, or under the supervision of the Illinois Department of Public Health or an associated municipal, county or regional department of public health or public health district are only required to perform Level 1 recordkeeping.

7.2 Level 2: Recordkeeping

Level 2 recordkeeping applies to permittees which exceed one or more of the annual treatment area thresholds listed in Table 3 and meet the definition of a small entity, as defined in Appendix A, must retain the following records at the address provided on the NOI. If the permittee is not the applicator, some of the records listed below shall be kept by the contract applicator.

a. Documentation of equipment calibration; and

b. Information on each treatment area to which pesticides are discharged, including:

1. Description of treatment area, by name and/or location including the size (acres or linear feet) of treatment area, as well as the closest named waters of the State to which pesticide(s) discharged are tributary;

2. Pesticide use pattern(s) (i.e., mosquito or other insect pest control, etc.)

3. Target pest(s) and explanation of need for pest control;

4. Description of pest management measures(s) implemented prior to the first pesticide application;

5. If different from the permittee, company name and contact information for contract applicator;

6. Name of each pesticide product used including the USEPA pesticide registration number;

7. Quantity of each pesticide product applied to each treatment area;

8. Pesticide application start and end date(s);

9. Whether or not visual monitoring was conducted during pesticide application and/or post-application and if not; why not and whether monitoring identified any possible or observable adverse incidents caused by application of pesticides; and

10. Name of any waters of the State in the treatment area currently listed as impaired for pesticides on the 303(d) list. This should include the name of the pesticide for which it is impaired.

An evaluation worksheet for documenting this information for each treatment area is available on the Internet at www.epa.state.il.us/water/permits/pesticide/forms.html.

7.3. Level 3: Recordkeeping

Level 3 recordkeeping applies to permittees which exceed one or more of the annual treatment area thresholds listed in Table 3 and do not meet the definition of a small entity, as defined in Appendix A, must retain the following

records at the address provided on the NOI. If the permittee is not the applicator, some of the records listed below shall be kept by the contract applicator.

a. A copy of the PDMP, including any modifications made to the PDMP during the term of this permit;

b. A copy of the annual reports submitted to IEPA;

c. Documentation of equipment calibration; and

d. Information on each treatment area to which pesticides are discharged, including:

1. Description of treatment area, by name and/or location including the size (acres or linear feet) of treatment area, as well as the closest named waters of the State to which pesticide(s) discharged are tributary;

2. Pesticide use pattern(s) (i.e., mosquito or other insect pest control, etc.)

3. Target pest(s) and explanation of need for pest control;

4. Action threshold(s);

5. Method and/or data used to determine that action threshold(s) has been met;

6. Description of pest management measures(s) implemented prior to the first pesticide application;

7. If different from the permittee, company name and contact information for contract applicator;

8. Name of each pesticide product used including the USEPA pesticide registration number;

9. Quantity of each pesticide product applied to each treatment area;

10. Pesticide application start and end date(s);

11. Whether or not visual monitoring was conducted during pesticide application and/or post-application and if not; why not and whether monitoring identified any possible or observable adverse incidents caused by application of pesticides; and

12. Name of any waters of the State in the treatment area currently listed as impaired for pesticides on the 303(d) list. This should include the name of the pesticide for which it is impaired.

7.4 Additional Recordkeeping Requirements for All Permittees

All required records must be documented as soon as possible but no later than 15 business days following completion each pesticide application. Permittees must retain any records required under this permit for at least 3 years from the date that coverage under this permit expires or is terminated. Permittees must make available to IEPA, including an authorized representative of IEPA, all records kept under this permit upon request and provide copies of such records, upon request.

7.5 Annual Reporting

Permittees which exceed one or more of the annual treatment area thresholds listed in Table 3 and do not meet the definition of a small entity, as defined in Appendix A, must submit an annual report to IEPA. Once the permittee meets the obligation to submit an annual report, the permittee must submit an annual report each calendar year thereafter for the duration of coverage under this general permit, whether or not the permittee has discharges from the application of pesticides in any subsequent calendar year. Permittees must submit the annual report electronically to epa.ILG87pestAnnRep@illinois.gov. The annual report must be submitted to IEPA no later than February 15th of the following year for all pesticide activities covered under this permit occurring during the previous calendar year. Annual reports are to be submitted beginning in 2012 for discharges from pesticide applications beginning prior to January 1, 2012.

Permittees conducting pesticide application activities pursuant to the Vector Control Act (410 ILCS 95) which are funded by, conducted in accordance with, or under the supervision of the Illinois Department of Public Health or an associated municipal, county or regional department of public health or public health district are not required to submit an annual report.

The annual report must include information for the calendar year, with the first annual report required to include activities for the portion of the calendar year after the effective date of the NOI. If the effective date is after December 1, the permittee is not required to submit an annual report for that first partial year but must submit annual reports thereafter, with the first annual report submitted also including information from the first partial year.

When permittees terminate permit coverage, as specified in Part 1.2.5, an annual report must be submitted for the portion of the year up through the date of termination. The annual report is due no later than 45-days after the termination date, or February 15th of the following year, whichever is earlier.

The annual report must contain the following information:

a. Permittee's name and contact information;

b. NPDES permit number;

c. Contact person name, title, e-mail address (if any), and phone number; and

d. For each treatment area, report the following information:

   1. Description of treatment area, by name and/or location including the size (acres or linear feet) of treatment area, as well as the closest named waters of the State to which pesticide(s) discharge are tributary;

   2. Pesticide use pattern(s) (i.e., mosquito and other insects, etc.) and target pest(s);

   3. Company name(s) and contact information for the pesticide applicator(s), if different from the permittee;

   4. Total amount of each pesticide product applied for the reporting year by the USEPA pesticide registration number(s) and by application method (e.g., aerially by fixed-wing or rotary aircraft, broadcast spray, etc.);

   5. Whether this pest control activity was addressed in the PDMP prior to pesticide application;

   6. If applicable, an annual report of any adverse incidents as a result of these treatment(s), for incidents, as described in Part 6.4.1; and

   7. If applicable, description of any corrective action(s), including spill responses, resulting from pesticide application activities and the rationale for such action(s).

The Annual Report form is available on the Internet at www.epa.state.il.us/water/permits/pesticide/forms.html.

8.0 Contact Information and Mailing Addresses

Permittees must submit the following documents to the email addresses listed below.

a. PDMP to epa.ILG87pestPDMP@illinois.gov

b. Annual Reports to epa.ILG87pestAnnRep@illinois.gov

c. Within 15 business days of becoming aware of an adverse incident, permittees must send all incident reports under Part 6.4 to epa.ILG87pest5day@illinois.gov

All other written correspondence concerning discharges covered under this permit and directed to the IEPA, including individual NPDES permit applications, must be sent to the IEPA Headquarters address listed below.

Note: If IEPA notifies dischargers (either directly, by public notice, or by making information available on the Internet) of other reporting options that become available at a later date (e.g., electronic submission), permittees may take advantage of those options, in accordance with the instructions provided by IEPA, to satisfy the reporting requirements of this permit.

8.1 IEPA Headquarters Address

Illinois Environmental Protection Agency
Division of Water Pollution Control, Mail Code #15
Attention: Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
www.epa.state.il.us./water/permits/pesticide/index.html

8.2 USEPA, Region 5 Address

United States Environmental Protection Agency
Region 5
Attention: Pesticide Program
77 W. Jackson Blvd.
Chicago, IL 60604

Appendix A
Definitions, Abbreviations, and Acronyms

A.1. DEFINITIONS

Action Threshold – the point at which pest populations or environmental conditions cannot be tolerated necessitating that pest control action be taken based on economic, human health, aesthetic, or other effects. An action threshold may be based on current and/or past environmental factors that are or have been demonstrated to be conducive to pest emergence and/or growth, as well as past and/or current pest presence. Action thresholds are those conditions that indicate both the need for control actions and the proper timing of such actions.

Active Ingredient – any substance (or group of structurally similar substances if specified by the Agency) that will prevent, destroy, repel or mitigate any pest, or that functions as a plant regulator, desiccant, or defoliant within the meaning of FIFRA sec. 2(a). [40 CFR 152.3] Active ingredient also means a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for the production of such a pesticidal substance. [40 CFR 174.3]

Adverse Incident – means an unusual or unexpected incident that a permittee or contract applicator has observed upon inspection or of which the permittee otherwise become aware, in which:

1. There is evidence that a person or non-target organism has likely been exposed to a pesticide residue, and
2. The person or non-target organism suffered a toxic or adverse effect.

The phrase toxic or adverse effects includes effects that occur within waters of the State on non-target plants, fish or wildlife that are unusual or unexpected (e.g., effects are to organisms not otherwise described on the pesticide product label or otherwise not expected to be present) as a result of exposure to a pesticide residue, and may include:

- Distressed or dead juvenile and small fishes
- Washed up or floating fish
- Fish swimming abnormally or erratically
- Fish lying lethargically at water surface or in shallow water
- Fish that are listless or nonresponsive to disturbance
- Stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants
- Other dead or visibly distressed non-target aquatic organisms (amphibians, turtles, invertebrates, etc.)

The phrase, toxic or adverse effects, also includes any adverse effects to humans (e.g., skin rashes) or domesticated animals that occur either from direct contact with or as a secondary effect from a discharge (e.g., sickness from consumption of plants or animals containing pesticides) to waters of the State that are temporally and spatially related to exposure to a pesticide residue (e.g., vomiting, lethargy).

Annual Treatment Area Threshold – an area (in acres) or in linear distance (in miles) in a calendar year to which a permittee is authorizing and/or performing pesticide applications in that area for activities covered under this permit.

Applicator – any person(s) who performs the application of a pesticide or who has day-to-day control of the application (i.e., they are authorized to direct workers to carry out those activities) that results in a discharge to waters of the State.

Biological Control Agents – these agents are organisms that can be introduced to operator sites, such as herbivores, predators, parasites, and hyperparasites. [Source: USFWS IPM Guidance, 2004]

Biological Pesticides (also called biopesticides) – include microbial pesticides, biochemical pesticides and plant-incorporated protectants (PIP). Microbial pesticide means a microbial agent intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or dessicant, that (1) is a eucaryotic microorganism including, but not limited to, protozoa, algae, and fungi; (2) is a procaryotic microorganism, including, but not limited to, Eubacteria and Archaebacteria; or (3) is a parasitically replicating microscopic element, including but not limited viruses. [40 CFR 158.2100(b)] Biochemical pesticide mean a pesticide that (1) is a naturally-occurring substance or ucturally-similar and functionally identical to a naturally-occurring substance; (2) has a history of exposure to humans and the environment demonstrating minimal toxicity, or in the case of a synthetically-derived biochemical pesticides, is equivalent to a naturally-occurring substance that has such a history; and (3) has a non-toxic mode of action to the target

pest(s). [40 CFR 158.2000(a)(1)] Plant-incorporated protectant means a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for production of such a pesticidal substance. It also includes any inert ingredient contained in the plant, or produce thereof. [40 CFR 174.3]

Chemical Pesticides – all pesticides not otherwise classified as biological pesticides.

Contract Applicator – any person(s) who make contractual pesticide applications for which they or their employer receives compensation (e.g., pest control companies).

Cultural Methods – manipulation of the habitat to increase pest mortality by making the habitat less suitable to the pest.

Declared Pest Emergency Situation – an event defined by a public declaration by a federal, state, or local governmental body or agency of a pest problem determined to require control through application of a pesticide beginning less than ten days after identification of the need for pest control. This public declaration may be based on:

1. Significant risk to human health;
2. Significant economic loss; or
3. Significant risk to:
   i. Endangered species,
   ii. Threatened species,
   iii. Beneficial organisms, or
   iv. The environment.

Director – means the Director of the Illinois Environmental Protection Agency or an authorized representative.

Discharge – when used without qualification, means the "discharge of a pollutant." [40 CFR 122.2]

Discharge of a pollutant – any addition of any "pollutant" or combination of pollutants to "waters of the State" from any point source," or any addition of any pollutant or combination of pollutants to the water of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft that is being used as a means of transportation. This includes additions of pollutants into waters of the State from: surface runoff that is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. [Excerpted from 40 CFR 122.2]

USEPA Approved or Established Total Maximum Daily Loads (TMDLs) – "USEPA Approved TMDLs" are those that are developed by the State and approved by USEPA. "USEPA Established TMDLs" are those that are issued by USEPA.

Facility or Activity – any NPDES "point source" (including land or appurtenances thereto) that is subject to regulation under the NPDES program. [40 CFR 122.2]

Impaired Water (or "Water Quality Impaired Water" or "Water Quality Limited Segment") – a water is impaired for purposes of this permit if it has been identified by the State pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called "water quality limited segments" under 40 CFR 130.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established.

Inert Ingredient – any substance (or group of structurally similar substances if designated by the Agency), other than an active ingredient, that is intentionally included in a pesticide product. [40 CFR 152.3] Inert ingredient also means any substance, such as a selectable marker, other than the active ingredient, where the substance is used to confirm or ensure the presence of the active ingredient, and includes the genetic material necessary for the production of the substance, provided that genetic material is intentionally introduced into a living plant in addition to the active ingredient. [40 CFR 174.3]

Mechanical/Physical Methods – mechanical tools or physical alterations of the environment, for pest prevention or removal.

Minimize – to reduce and/or eliminate pesticide discharges to waters of the State through the use of Pest Management Measures to the extent technologically available and economically practicable and achievable.

Non-target Organisms – includes the plant and animal hosts of the target species, the natural enemies of the target species living in the community, and other plants and animals, including vertebrates, living in or near the community that are not the target of the pesticide.

Operator – for the purpose of this permit, means any person(s) associated with the application of a pesticide that results in a discharge to waters of the State that meets either or both of the following two criteria:

a. The person(s) with control over the hiring of a contract applicator, or making the decision to perform pesticide applications, including the ability to modify those decisions, that results in a discharge to waters of the State, or

b. The person(s) who performs the application of pesticides or who has day-to-day control of the pesticide application, that results in a discharge to waters of the State.

Outstanding Resource Water – is a surface water body or water body segment that is of exceptional ecological or recreational significance and must be designated by the Illinois Pollution Control Board pursuant to 35 Ill. Adm. Code 102.Subpart H.

Permittee – an operator that has obtained coverage under this general permit.

Person – any individual, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, political subdivision, state agency, or any other legal entity, or their legal representative, agent or assigns.

Pest – consistent with 40 CFR 152.5, any organism under circumstances that make it deleterious to man or the environment, if it is:

a. Any vertebrate animal other than man;

b. Any invertebrate animal, including but not limited to, any insect, other arthropod, nematode, or mollusk such as a slug and snail, but excluding any internal parasite of living man or other living animals;

c. Any plant growing where not wanted, including any moss, alga, liverwort, or other plant of any higher order, and any plant part such as a root; or

d. Any fungus, bacterium, virus, or other microorganism, except for those on or in living man or other living animals and those on or in processed food or processed animal feed, beverages, drugs (as defined in FFDCA sec. 201(g)(1)) and cosmetics (as defined in FFDCA sec. 201(i)).

Pest Management Area – the area of land, including any water, for which the permittee has responsibility for and is authorized to conduct pest management activities as covered by this permit (e.g., for a permittee who is a mosquito control district, the pest management area is the total area of the district).

Pest Management Measure – any practice used to meet the effluent limitations that comply with manufacturer specifications, industry standards and recommended industry practices related to the application of pesticides, relevant legal requirements and other provisions that a prudent permittee would implement to reduce and/or eliminate pesticide discharges to waters of the State.

Pesticide – means (1) any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, (2) any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant, and (3) any nitrogen stabilizer, except that the term "pesticide" shall not include any article that is a "new animal drug" within the meaning of section 201(w) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321(w)), that has been determined by the Secretary of Health and Human Services not to be a new animal drug by a regulation establishing conditions of use for the article, or that is an animal feed within the meaning of section 201(x) of such Act (21 U.S.C. 321(x)) bearing or containing a new animal drug. The term "pesticide" does not include liquid chemical sterilant products (including any sterilant or subordinate disinfectant claims on such products) for use on a critical or semi-critical device, as defined in section 201 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321). For purposes of the preceding sentence, the term "critical device" includes any device that introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body and the term "semi-critical device" includes any device that contacts intact mucous membranes but

which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. [FIFRA Section 2(u)]

The term "pesticide" applies to insecticides, herbicides, fungicides, rodenticides, and various other substances used to control pests. The definition encompasses all uses of pesticides authorized under FIFRA including uses authorized under sections 3 (registration), 5 (experimental use permits), 18 (emergency exemptions), 24(c) (special local needs registrations), and 25(b) (exemptions from FIFRA).

Note: Drugs used to control diseases of humans or animals (such as livestock and pets) are not considered pesticides; such drugs are regulated by the Food and Drug Administration. Fertilizers, nutrients, and other substances used to promote plant survival and health are not considered plant growth regulators and thus are not pesticides. Biological control agents, except for certain microorganisms, are exempted from regulation under FIFRA. (Biological control agents include beneficial predators such as birds or ladybugs that eat insect pests, parasitic wasps, fish, etc).

This permit uses the term "pesticide" when referring to the "pesticide, as applied." When referring to the chemical in the pesticide product with pesticidal qualities, the permit uses the term "active ingredient."

Pesticide Product – a pesticide in the particular form (including composition, packaging, and labeling) in which the pesticide is, or is intended to be, distributed or sold. The term includes any physical apparatus used to deliver or apply the pesticide if distributed or sold with the pesticide.

Pesticide Research and Development – activities undertaken on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development).

Pesticide Residue – includes that portion of a pesticide application that is discharged from a point source to waters of the State and no longer provides pesticidal benefits. It also includes any degradates of the pesticide.

Point Source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. [40 CFR 122.2]

Pollutant – dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. [Excerpted from 35 Ill. Adm. Code 301.340] For purposes of this definition, a "biological pesticide" is considered a "biological material," and any "pesticide residue" resulting from use of a "chemical pesticide" is considered a "chemical waste." [Excerpted from 40 CFR 122.2]

Small Entity – any (1) public entity that serves a population of 10,000 or less, (2) a person(s) applying pesticides on private property where they or any member of their immediate family reside or property that they own or lease, or (3) a private enterprise that does not exceed the Small Business Administration size standard as identified at 13 CFR 121.201.

Target Pest – the organism(s) toward which pest management measures are being directed.

Total Maximum Daily Loads (TMDLs) – a TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount of the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges, load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. [See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7]

Treatment Area – the entire area, whether over land or water, where a pesticide application is intended to provide pesticidal benefits within the pest management area. In some instances, the treatment area will be larger than the area where pesticides are actually applied. For example, the treatment area for a stationary drip treatment into a canal includes the entire width and length of the canal over which the pesticide is intended to control weeds. Similarly, the treatment area for a lake or marine area is the water surface area where the application is intended to provide pesticidal benefits.

Waters – all accumulations of water, surface and underground, natural, and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state.

Water Quality Impaired – see 'Impaired Water'.

Water Quality Standards – a water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. Water quality standards also include an antidegradation policy and implementation procedures. See 35 Ill. Adm. Code 302.

Wetlands - means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. [40 CFR 122.2]

.2. ABBREVIATIONS AND ACRONYMS

CFR	Code of Federal Regulations
CWA	Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq*)
FFDCA	Federal Food, Drug, and Cosmetic Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §136 *et seq*
FWS	United States Fish and Wildlife Service
IDNR	Illinois Department of Natural Resources
IEPA	Illinois Environmental Protection Agency
IEMA	Illinois Emergency Management Agency
IPM	Integrated Pest Management
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
ORW	Outstanding Resource Water
PDMP	Pesticide Discharge Management Plan
TMDL	Total Maximum Daily Load
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency
WQS	Water Quality Standard

Appendix B
Standard Permit Conditions – Attachment H

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24-Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8-Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

(2) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

(3) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

10) **Monitoring and records.**

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.

(c) Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;

(2) The individual(s) who performed the sampling or measurements;

(3) The date(s) analyses were performed;

(4) The individual(s) who performed the analyses;

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

(d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

11) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.

(a) **Application.** All permit applications shall be signed as follows:

(1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

(b) **Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a); and

(2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and

(3) The written authorization is submitted to the Agency.

(c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) **Certification.** Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

12) **Reporting requirements.**

(a) **Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or

(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42 (a)(1).

(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal

sites not reported during the permit application process or not reported pursuant to an approved land application plan.

(b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) **Transfers.** This permit is not transferable to any person except after notice to the Agency.

(d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(e) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.
(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).
(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(f) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:
(1) Any unanticipated bypass which exceeds any effluent limitation in the permit.
(2) Any upset which exceeds any effluent limitation in the permit.
(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.
The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.

(g) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12) (d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).

(h) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

3) **Bypass.**
(a) Definitions.
(1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
(2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).

(c) Notice.
(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).

(d) Prohibition of bypass.
(1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:
(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(iii) The permittee submitted notices as required under paragraph (13)(c).
(2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

(14) **Upset.**
(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant

evidence that:
(1) An upset occurred and that the permittee can identify the cause(s) of the upset;
(2) The permitted facility was at the time being properly operated; and
(3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).
(4) The permittee complied with any remedial measures required under paragraph (4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

15) **Transfer of permits.** Permits may be transferred by modification or automatic transfer as described below:
(a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
(b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically transferred to a new permittee if:
(1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;
(2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and
(3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

16) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:
(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
(1) One hundred micrograms per liter (100 ug/l);
(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.
(3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or
(4) The level established by the Agency in this permit.
(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.

17) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:
(a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
(b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
(c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(18) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:
(a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;
(b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and
(c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(19) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(20) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.
Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).

(23) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

25) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.

28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

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