

CITY OF MADISON ENGINEERING DIVISION

2017 ANNUAL INTEGRATED PEST MANAGEMENT REPORT

SECTION 1 - City Facilities Maintained by Engineering

Summary of Chemicals and Quantities Used

Pesticide applications at facilities maintained by the Engineering Division are summarized below.

Location	Date	Target Species	Pesticide	EPA #	Quantity
Police North	5/17/17	Exterior crawling insects	Demand G	100-1240	1.5 pounds
	8/11/17	Exterior crawling insects	Demand CS	100-1066	2 gallons
	10/2/17	Exterior crawling insects	Demand CS	100-1066	2 gallons
Police South	5/2/17	Exterior Ants	Termidor SC	7969-210	2 gallons
	8/4/17	Exterior crawling insects	Demand CS	100-1066	1.5 gallons
Police East	4/13/17	Exterior crawling insects	Demand G	100-1240	3 pounds
	5/10/17	Exterior Ants	Termidor SC	7969-210	2 gallons
Police West		Exterior Mice	WeatherBlok XT	100-1055	43 blocks
	5/12/17	Exterior Ants	Termidor SC	7969-210	2 gallons
	7/19/17	Exterior Crawling Insects	Demand SC	100-1066	1 gallon
Police Training	8/15/17	Exterior Ants	Termidor SC	7969-210	1.5 gallons
	6/2/17	Interior Ants	Delta Dust	432-772	0.0125 ounces
	6/2/17	Interior Ants	Advion Ant Gel	100-1498	0.125 grams
	7/6/17	Exterior Crawling Insects	Demand CS	100-1066	32 ounces
	8/15/17	Exterior Wasps	Exciter	89489-41	6 ounces
	9/28/17	Exterior Wasps	Suspend Polyzone	432-1514	8 gallons
Police Storage Shed	4/24/17	Exterior Crawling Insects	Demand CS	100-1066	4 ounces
	8/15/17	Bed Bugs	PT Alpine Flea and Bed Bug	499-540	
	8/15/17	Bed Bugs	Crossfire	1021-2788	
Streets West	5/4/17	Breakroom Ants	Delta Dust	432-772	0.015 ounces
	5/4/17	Exterior Ants	Termidor SC	7969-210	1 gallon
	5/8/17	Office Ants	Delta Dust	432-442	0.03 ounces
	6/15/17	Restroom Ants	Advion Ant Gel	100-1498	0.125 grams
	5/4/17	Interior Ants	Phantom	241-392	4 ounces
	5/4/17	Interior Ants	Delta Dust	432-772	0.5 ounces
Engineering Operations Facility	5/15/17	Exterior Ants	Termidor SC	7969-210	2 gallons
	3/27/17	Interior Ants	Phantom	241-392	3 ounces
	3/27/17	Interior Ants	Delta Dust	432-772	0.05 ounces
	4/11/17	Exterior Ants	Termidor SC	769-210	2 gallons
	7/19/17	Exterior Ants	Suspend Polyzone	432-1514	
	8/17/17	Exterior Crawling Insects	Demand CS	100-1066	3.5 gallons
Fire Station 1	7/21/17		Demand CS	100-1066	0.5 pounds
	8/28/17		Demand CS	100-1066	1.5 gallons
Fire Station 2	10/6/17		Demand CS	100-1066	2 ounces
	4/5/17		Demand G	100-1240	1 gallon
	5/3/17		Termidor	7969-210	0.5 pounds
	6/7/17		Demand CS	100-1066	1.5 gallons
	7/6/17		Demand CS	100-1066	2 gallons
	8/2/17		Demand CS	100-1066	1.5 gallons
Fire Station 3	5/15/17		Demand CS	100-1066	3 gallons
	8/15/17		Termidor	7969-210	1 gallon
Fire Station 4	5/2/17		Demand CS	100-1066	4 gallons
	6/6/17		Demand CS	100-1066	1 gallon
	7/6/17		Demand CS	100-1066	2 gallons
Fire Station 5	8/2/17		Demand CS	100-1066	1 gallon
	5/10/17		Termidor	7969-210	1.5 gallons
	6/15/17		Demand CS	100-1066	2 gallons
Fire Station 6	7/13/17		Termidor	7969-210	1 gallon
	8/10/17		Demand CS	100-1066	1.5 gallons
	3/9/17		ZP Tracking Powder	12455-16	0.007 ounces
	5/2/17		Termidor	7969-210	2 gallons
	6/15/17		Demand CS	100-1066	1.75 gallons

Location	Date	Target Species	Pesticide	EPA #	Quantity
	7/11/17		Termidor	7969-210	2 gallons
	8/4/17		Demand CS	100-1066	1.5 gallons
Fire Station 7	5/12/17		Termidor	7969-210	2 gallons
	6/9/17		Demand CS	100-1066	2 gallons
	7/11/17		Termidor	7969-210	2 gallons
	8/14/17		Demand CS	100-1066	2 gallons
	10/16/17		Demand CS	100-1066	24 ounces
	10/16/17		Invade Bio Foam		24 ounces
	10/16/17		Transport Mikron	8033-109-279	2 gallons
Fire Station 8	5/1/17		Demand G	100-1240	1.5 pounds
	6/16/17		Demand CS	100-1066	1.5 pounds
	8/7/17		Demand CS	100-1066	1.5 gallons
Fire Station 9	5/3/17		Termidor	7969-210	1.5 gallons
	7/17/17		Termidor	7969-210	1.5 gallons
	8/2/17		Demand CS	100-1066	1 gallon
	12/15/17		Delta Dust	432-772	2 grams
Fire Station 10	5/1/17		Demand G	100-1240	1.5 pounds
	6/18/17		Demand CS	100-1066	3 gallons
	7/11/17		Advion Ant Gel	100-1498	0.125 gram
	8/7/17		Demand CS	100-1066	1.5 gallons
Fire Station 11	5/4/17		Demand CS	100-1066	1.75 gallons
	7/7/17		Termidor	7969-210	1 gallon
	8/3/17		Suspend Polyzone	432-1514	2.5 gallons
Fire Station 12	3/7/17		Demand CS	100-1066	3 ounces
	5/11/17		Demand CS	100-1066	2 gallons
	6/8/17		Demand CS	100-1066	2 gallons
	7/15/17		Demand CS	100-1066	2 gallons
	8/1/17		Demand CS	100-1066	2 gallons
			Weatherbok XT	100-1055	51 blocks
			Firestrike	173-258	8 packets
Fire Station 13	9/1/17		Exciter	89459-41	8 ounces
Fire Maintenance	4/7/17		PT Alpine Flea and Bed Bug	499-540	2 ounces
	5/4/17		Demand CS	100-1066	3 gallons
	7/11/17		Demand CS	100-1066	1 gallon
	7/31/17		PT Alpine Flea and Bed Bug	499-540	1 ounce
	8/14/17		Suspend Polyzone	432-1514	1.75 gallons

Additional information on chemicals used at City facilities for which Engineering is responsible for Integrated Pest Management is provided in the Table below.

Trade Name	EPA Reg. #	Active Ingredient	% by weight
Advion Gel Bait	100-1498	Indoxacarb	0.05
Crossfire	1021-2788	Metofluthrin	0.100
		Clothianidin	4.000
		Piperonyl Butoxide	10.000
Delta Dust	432-772	Deltamethrin	0.05
Demand CS	100-1066	Lambda-cyhalothrin	9.70
Demand G	9198-AL-1	Lambda-cyhalothrin	.045
ExciteR	89459-41	Pyrethins	6.0
		Piperonyl Butoxide Technica;	60.0
Firestrike	173-258		
Invade Bio Foam			
Phantom	241-392	Chlorfenapyr	21.45
PT Alpine Flea and Bed Bug	499-540	Dinotefuran	.25
		Pyriproxyfen	.1
		Prallethrin	.05
		Distillates (petroleum), hydrotreated light	<= 10
		liquified petroleum gas propellant	<= 15
Suspend Polyzone	432-1514	Deltamethrin	4.75
Termidor SC	7969-210	Fipronil	9.10
Transport Mikron	8033-109-279	Bifenthrin	6
		Acetamidrid	5
		Propylene Carbonate S	5-15

Trade Name	EPA Reg. #	Active Ingredient	% by weight
Weatherblok XT	100-1055	3-[3-(4'-bromo[1,1'-biphenyl]-4-yl)-1,2,3,4-tetrahydro-1-naphthalenyl]-4-hydroxy-2H-1-benzopyran-2-one	.0055
ZP Tracking Powder	12455-16		

Summary of Non-Chemical Pest Control Activities

There were no pesticide applications at the following Engineering maintained facilities during 2017:

- Fairchild Building
- Fire Administration Building
- Fleet Services Building
- Madison Municipal Building
- Police Evidence Storage
- Police Storage Shed
- Waste Transfer Station

Estimated Size of Total Area Managed

The Engineering Division is responsible for Integrated Pest Management services at 32 buildings totaling nearly 800,000 square feet. These facilities include office, vehicle storage and maintenance facilities as well as police and fire stations. The goal for the Engineering Division Integrated Pest Management is to control the insect and rodent population at the buildings identified above. Engineering is responsible for integrated pest management at the following facilities:

Building	Location	SF
Engineering Services Bldg	1600 Emil Street	78,242
Fairchild Bldg	120 S Fairchild Street	52,329
Fire Administration Bldg	314 W Dayton Street	23,867
Fire Motor Equipment	1234 E Washington Avenue	8,236
Fire Station #01	316 W Dayton Street	37,841
Fire Station #02	421 Grand Canyon Drive	7,609
Fire Station #03	1217 Williamson Street	8,372
Fire Station #04	1437 Monroe Street	10,328
Fire Station #05	4418 Cottage Grove Road	8,052
Fire Station #06	825 W Badger Road	11,874
Fire Station #07	1810 McKenna Boulevard	12,539
Fire Station #08	3945 Lien Road	10,054
Fire Station #09	201 N Midvale Boulevard	5,564
Fire Station #10	1517 Troy Drive	5,959
Fire Station #11	4011 Morgan Way	11,204
Fire Station #12	400 South Point Road	12,500
Fire Station 13	6350 Town Center Dr	12,725
Fleet Service Bldg	120 N First St	40,000
Municipal Bldg	215 Martin Luther King Jr Boulevard	74,154
Police East District Station	809 S Thompson Drive	14,125
Police South District Station	825 Hughes Place	10,387
Police North District Station	2033 Londonderry Drive	7,901
Police West District Station	1710 McKenna Boulevard	12,249
Police Training Facility	5702 Femrite Road	33,000
Police Vehicle Impound Storage	29 Marsh Court	9,600
Police Storage (heated)	200 N First Street	1,600
Police Storage (L-shaped)	200 N First Street	3,741
Police Storage Shed	200 N First Street	364
Streets East	4602 Sycamore Avenue	138,000

Streets South Point Facility	402 South Point Rd	25,452
Streets Waste Transfer Station	121 E Olin Avenue	26,000
Street West	1501 W Badger Road	76,000
Total Square Footage		790,868

SECTION 2 - City Engineering Storm Water Right-of-Way Maintenance

The Engineering Division is also responsible for the design, construction, operation, and maintenance of the City's storm water conveyance system. This conveyance system includes retention/detention/infiltration ponds and greenways. These grassy and prairie areas are designed to slow down stormwater and provide some level of treatment by helping to remove sediment and nutrients. In order to maintain these areas for their intended purpose, they are generally mowed or spot mowed every year to minimize invasive weeds and volunteer trees. Trees in a greenway lead to erosion issues when they shade out lower growing vegetation, exposing bare ground.

Private use of these public areas is regulated by City ordinance. Generally, only temporary uses are allowed, such as walking or other non-destructive recreational activities (e.g., Frisbee). They are not intended to be extensions of personal yards: no trampolines, play structures, vegetable gardens, trees, or disposal of yard waste. Stormwater needs to be able to run freely and our crews need to be able to access and safely mow these areas. Encroachments and other non-compliance uses will be ordered to be removed.

City Engineering hires contractors and allows experienced volunteers to remove the most noxious invasives from greenways and ponds in order to allow prairie plantings to get established. Operation Fresh Start was hired in 2016 to cut and treat invasive brush like sandbar willows and buckthorn. Simon Widstrand, retired City of Madison Parks Development Manager, volunteered his time and expertise to cut and treat invasive woody trees and brush as well as other invasive plant species in various storm water management areas. Good Oak Ecological was hired to treat garlic mustard and Japanese knotweed along the Southwest bike path. All of these herbicide applications are detailed in the attached pesticide reports.

City Engineering is allowing residents to adopt ash trees on Engineering property that meet pre-defined requirements. Contractors used the pesticide Tree-Age to prevent Emerald Ash Borer from killing the adopted ash trees.

Summary of Chemicals and Quantities Used

Trade Name	EPA Reg. #	Active Ingredient	% by weight	2016 Total Qty Used
2, 4-D Amine 4	42750-19	Dimethylamine salt of 2, 4-dichlorophenoxyacetic acid	46.8	7.75 Gallons
AquaNeat	228-365	Glyphosate, N-(phosphonomethyl) glycine, in the form of isopropylamine salt	53.8	0.0 Gallons
Element 3-A	62719-37	Triclopyr , 3,5,6-trichloro-2-pyridinyloxyacetic acid, triethylamine salt	44.4	0.0 Gallons
Garlon 3A	62719-37	Triclopyr TEA Salt	44.4	1.5 Gallons
Intensity	34704-864	Clethodim: (E) -2-[1-[(3-chloro-2-propenyl)oxy]imino]propyl-5-[2-(ethylthio)propyl] -3-hydroxy -2- cyclohexen -1-one	26.4	0.0 Gallons
Milestone	62719-519	Aminopyralid: 2-pyridine carboxylic acid, 4-amino-3, 6-dichloro- 2-pyridinecarboxylic acid, triisopropanolammonium salt or aminopyralid	40.6	101 Gallons 84.48 oz
Pathfinder II	62719-176	Triclopyr BEE	13.6	7.48 Gallons
TREE-age	100-1309-74578	Emamectin Benzoate	4.0	390 ml
Polaris	228-534	Imazapyr	27.6	50 oz
Roundup	524-529	Glyphosate	41.0	64 oz

Ranger Pro	524-517	Glyphosate	41.0	14 oz
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Summary of Non-Chemical Pest Control Activities

The Engineering uses the following equipment in its mowing operation:

- 90 HP John Deere utility tractor with 15' Rhino batwing mower and 60" boom flail;
- 125HP John Deere utility tractor with a 15' Rhino batwing mower;
- 38 HP Kut-Kwik slope mower with 72" mowing deck;
- Trackless MT5 110 HP articulating tractor with 51" boom flail and 74" flail mowers;
- Ventrac 4500P 31HP articulating compact Tractor with a 68" Tough Cut mower.

The City's greenway mowing policy is designed to ensure that the City's greenways and ponds perform the function for which they were designed – storm water drainage and conveyance that improves our water quality while minimizing the potential for flooding. Mowing reduces the height of growth and is used to prevent woody plants from becoming established. Woody plants can quickly overtake a prairie area and crowd out lower height vegetation resulting in erosion and pools of standing water that promote mosquito breeding. Additionally, mowing helps control noxious weeds and the spread of invasive vegetation. We do not mow these areas more frequently because native grasses and prairie plants are valuable in reducing the amount of urban runoff that reached our lakes and rivers. These plants promote infiltration of storm water into the ground while providing a buffer that captures a significant amount of sediment, nutrients and other pollutants before they reach surface waters.

In 2016 the City greatly expanded a 2012 pilot program called Selective Prairie Management (SPM) to reduce mowing frequencies to approximately 400 acres of Engineering storm water management areas. This SPM program is led by Simon Widstrand, retired City of Madison Parks Development Manager, and is designed to restore native prairie plants and grasses in these areas. The program includes spot mowing, string trimming and manual cutting and chemical treatment of woody, invasive and noxious species. While the first four years of this program saw a significant increase in chemical treatments in these areas, we believe this is a short-term necessity for eliminating these undesirable species. Over time, as more desirable prairie plant and grasses become more established less chemical treatment will be required.

Engineering is also responsible for maintenance of various bike paths throughout the City. Non-chemical pest control activities in these areas included bi-weekly mowing of a five-foot buffer off each side of the paved surface and an annual spring mowing of accessible areas not designated as "no-mow".

Estimated Size of Total Area Managed

The City's greenway system consists of more than 1,500 acres located throughout the City. The Engineering Division has maintenance responsibility for 971.29 acres.

Engineering is responsible for mowing along 10.89 miles of bike paths. These bike paths include the South West bike path from the Capital City Trail in Fitchburg to North Shore Dr; Cannonball Bike Path from Seminole to Fish Hatchery Rd; Capital City Trail from Garrison St to Stoughton Rd (Hwy 51).

Annual Summary of Complaints

Engineering received a few complaints from property owners abutting various greenways as well as users of the South West bike path regarding noxious weeds and invasive species. Our response to these complaints was spot mowing.

SECTION 3 - Pest Management Requirements as set by City Policy

1. Our agency will maintain appropriate records of pest monitoring data, pest control actions attempted (both non-chemical and chemical), and results of pest control activity. We plan to submit our annual report no later than March 1st of the following year to the Pest Management Advisory Committee. This report will contain the following information:
2. When chemical pest control is necessary we will provide at a minimum, readily visible posting for a period of 24 hours prior to a pesticide application (when possible) and a minimum of 48 hours following the application. These time intervals may be extended based on health or safety concerns. For areas that receive pesticide applications on a regular basis, permanent signs will be posted.
3. Any complaints regarding health effects possibly related to pesticide applications will be reported to the Public Health Department at the earliest opportunity.
4. Any unusual amount of pesticide use due to unusual circumstances will be reported to the Director of Public Health or his/her designee at the earliest opportunity.
5. The IPM Coordinator and all supervisors having responsibility for the handling, application, disposal or storage of pesticides will be State certified under the Department of Agriculture, Trade and Consumer Protection's Pesticide Applicator Certification Program for Commercial Applicator - Government. All employees and volunteers applying pesticides will be State certified or working under the direct supervision of a certified applicator. All employees having any involvement with pesticide handling, application, disposal or storage will receive basic training in pesticide safety.
6. Our agency will store, apply, and dispose of pesticides and pesticide containers in accordance with label directions and any other State and Federal regulations.
7. Any contractor hired by our agency will be required to comply with the City Policy.
8. Our agency will not apply chemical pesticides to control dandelions and other broadleaf weeds on general parklands, median strips, street terraces, roadsides, general lawn areas, and athletic fields that are not reserved, nor are fees paid for their use. Lawns and garden areas (including medians) will be managed using non-toxic methods.
9. Our agency will not apply any pesticides that are currently under EPA Special Review.

APPENDIX A. GENERAL PEST MANAGEMENT PLAN for 2018

Description of Pest Management Needs

The goals for the Engineering Division Integrated Pest Management are as follows:

- Control the insect and rodent population at the buildings identified above;
- Control noxious weeds, invasive species and other undesirable woody plants in greenways and pond areas.
- Control mosquito-breeding environments in sewer access structures, catch basins and storm water detention basins.

CITY OF MADISON ENGINEERING DIVISION

1/22/2017

Agency Name

Date Completed

General Philosophy

Our agency will manage pests on City of Madison property in accordance with the Policy Regarding Pest Management on City Property. Our Integrated Pest Management (IPM) program will evaluate and give preference to non-pesticide management practices and use reasonably available alternative pest control methods. When non-toxic forms of pest control are ineffective and pest populations pass, or threaten to pass, accepted tolerance thresholds, we will apply chemical pesticides, which pose the lowest risk of harm to human health and the environment, as a last resort.

Agency Contact

The IPM Coordinator listed below is responsible for coordinating our agencies pest management activities including, as appropriate, developing and revising the pest management plan for the agency, directing staff, contracting with outside pest management contractors, and submitting pest management plans and reports.

CARISSA WEGNER

LANDSCAPE
ARCHITECT 1

IPM Coordinator Name (Section 2)

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