

King Philip Regional High School
OUTDOOR INTEGRATED PEST MANAGEMENT (IPM) PLAN
201 Franklin Street
Wrentham, MA 02093

IPM Coordinator

Joseph Zahner, Jr.

Primary Contact

Larry Azer, 508-520-7991, azerl@kingphilip.org

King Philip Regional High School employs Joseph F. Zahner, Jr. an on-site certified and/or licensed pesticide applicator (certification/license #: 42139) who may be called on to manage all or some of the necessary OUTDOOR pest problems that may arise.

In addition, this School also has a contract with

- Ben Leach of Sports Turf Specialties, 508-384-1084.

By signing the end of this outdoor IPM plan, the IPM coordinator, Joseph Zahner, Jr., of this School and the Pest Management Professionals described above acknowledge, and agree to the terms of this OUTDOOR integrated pest management plan.

A. INTRODUCTION

In compliance with the Act Protecting Children and Families from Harmful Pesticides the King Philip Regional High School on 9/3/2019 12:50:00 PM has prepared the following outdoor IPM plan about pest control and pesticide use.

This plan describes the pest management practices for outdoor areas of King Philip Regional High School and clearly states it's pesticide use policies.

A copy of the plan has been filed with the Massachusetts Department of Agricultural Resources (MDAR), and at least one printed copy must be kept on site and made available to the public upon request.

By centralizing all of the information about this facility's pest management practices the plan serves as a guide to direct this facility's IPM coordinator, Joseph Zahner, Jr.

Objectives

The objectives of the integrated pest management program conducted at the King Philip Regional High School are listed below.

- Reduce children's exposure to pesticides and pesticide residues whenever possible.
- Manage pests that may occur on facilities to prevent interference with the learning environment of the students.
- Provide the safest playing or athletic surfaces possible.

In light of these objectives, the King Philip Regional High School has selected the following as its IPM policy statement.

B.POLICY STATEMENT

Structural and landscape pests can pose significant problems for people and property. Pesticides can pose risks to people, property, and the environment. It is therefore the policy of this school to incorporate Integrated Pest Management (IPM) procedures for control of structural and landscape pests. The objective of this program is to provide necessary pest control while minimizing pesticide use.

C. IPM COMMITTEE

The tasks set before an IPM committee are to:

- Develop an IPM plan. The IPM plan is in essence, a document that describes the organization and implementation of IPM on school grounds.
- Evaluate progress of the IPM program.
- Communicate about IPM - Facilitate communication within the school about IPM practices.
- Assist in development of contract specifications.
- Provide notification to parents about pesticide use.

The OUTDOOR committee members selected for the King Philip Regional High School are listed below:

- 1) Joseph Zahner, Jr. (Outdoor IPM Coordinator)
- 2) Larry Azer
- 3) Tom Lawler
- 4) Mark Belanger
- 5) Joe Zahner, Jr.

D. COMMUNICATING IPM WITHIN THE FACILITY

Pest Management Personnel to Building Staff:

The Pest Management Professional communicates with the IPM coordinator of the facility. The IPM coordinator then posts this information in a common viewing area dedicated to the subject of integrated pest management. In addition, the IPM coordinator also communicates information to the staff supervisors who then distribute the information to all the staff and occupants concerned.

Staff/Students communicate in writing with an administrator who then passes the information onto the IPM coordinator when necessary.

E. EDUCATION AND TRAINING OF FACILITY OCCUPANTS & STAFF

The IPM coordinator and Pest Management Professional work together to create a document regarding IPM and how King Philip implements this plan throughout the district. Teachers and other staff members will educate students on our IPM strategy.

F. OUTDOOR MONITORING

The IPM plan will follow a Annually evaluation schedule. When pests are present, King Philip Regional High School has chosen an **OUTDOOR monitoring schedule that consists of Weekly inspections**. When pests are absent the **OUTDOOR monitoring schedule will consist of Monthly inspections**.

The following technique will be used to monitor for pests: Reports from the groundskeepers and athletic department prompt the IPM coordinator to setup monitoring traps. These traps determine the pest identity, abundance, and threshold level. The facility's Pest Management Professional conducts regular inspections with the IPM coordinator and creates the proper plan of action.

G. COURSE OF ACTION TAKEN FOR OUTDOOR PESTS

Outdoor property includes the turf, landscaping, and the outdoor grounds such as building exterior, playground equipment, etc.. King Philip Regional High School has prepared maps of the outdoor facility and identified the following priority areas for maintenance:

Turf

Primarily athletic fields such as baseball and field hockey complex, and practice field. Lawns around the building are maintained but don't have irrigation, therefore less turf maintenance is done.

Landscaping

Priority areas for landscaping are athletic fields, grounds around the building including trees and plants, and surrounding grassy areas that need to be maintained.

Outdoor Grounds

These areas include doorways around the building and or crevices where stinging insects live. The bleachers are inspected for bees nests before football and soccer season as well. Other areas are tennis courts, fences, dugouts, overhead canopies, courtyards, generator, garages, and snack shed.

The following pests have historically and/or currently been a problem at King Philip Regional High School:

TURF PESTS	LANDSCAPING AND PLANT PESTS	OUTDOOR GROUNDS PESTS
<p>Insects/pests under the soil or root zone Grubs (Japanese Beetles, European Chafer, Asiatic Garden Beetles, Oriental Beetles, and other)</p>	<p>Weeds Crabgrass</p> <p>Other</p>	<p>Pests Ants Mosquitoes & Flies Stinging Insects</p>
<p>Surface and/or thatch pests Ants</p>		<p>Weeds Noxious weeds noticed on the school grounds Poison Ivy</p>
<p>Weeds Crabgrass Dandelions, plaintains, ground ivy, cinquefoil</p>		<p>Other</p>
<p>Turfgrass diseases Snow Mold</p>		
<p>Other</p>		

TURF MANAGEMENT PLAN

The following areas are priority areas for maintenance: Primarily athletic fields such as baseball and field hockey complex, and practice field. Lawns around the building are maintained but don't have irrigation, therefore less turf maintenance is done.

Cultural Practices

Mowing:

Athletic fields are cut to desired lengths based on the sport in season, range from 3/4" to 2". Mowing is done as needed to keep from cutting more than 1" off per cut. Blades are sharpened about twice per month. The clippings are bagged and removed only if necessary on sports fields. Clippings are always removed when mowing around perimeter of school building.

Aeration:

Aeration takes place a 4 (four) times per year. We aerate immediately after winter, at the end of the playing season, beginning of fall season, and end of fall season. This is only on athletic fields that get highest traffic through the season. The rest of the grounds get aerated once in the spring and once in the fall.

Water Management:

The baseball and field hockey complex irrigation runs daily in warm seasons. It is run from a well specifically dedicated to that section of fields. The track field is now synthetic and does not need water. The practice field gets watered within the towns parameters from a water cannon, about twice per week.

Fertilization:

Soil testing is done once per year. Fertilizer is applied every 6-8 weeks based on fertility program with contracted company, Sports Turf Specialties. We fertilize 1 lb N per 1000 sq ft. The equipment used is a Lely tractor mounted commercial spreader and is calibrated from the chart provided.

Equipment Maintenance:

All equipment is stored inside garages and is cleaned frequently. Grass is blown off mowers daily.

Turfgrass diseases

Snow Mold

Describe the monitoring technique you used for the pests above.

Inspection when mowing and walking fields

Provide information on how you diagnosed the pests above.

By visual inspection

Provide details on the non-chemical control measures have you taken to manage the pests above.

Aerate and over seed to promote healthy grasses and drown out weeds. Also bagging clipping to stop from spreading

Describe any alternative management or biological strategies being used or planned to be used, if any.

none

If you use fungicides, describe your rationale for using them for the pests above.

none

Insects/pests under the soil or root zone

Grubs (Japanese Beetles, European Chafer, Asiatic Garden Beetles, Oriental Beetles, and other)

Surface and/or thatch pests

Ants

Other Turf Pest Problems

Describe the monitoring technique you used for the pests above.

Visual inspection when mowing and walking grounds.

Provide information on how you identified the species of pests above.

Visual inspection and from the lawn care company.

Provide details on the non-chemical control measures have you taken to manage the pests above.

None

Describe any alternative management or biological strategies being used or planned to be used, if any.

None

If you use insecticides, describe your rationale for using them for the pests above.

Only when safety is of concern under the root zone of grasses, and has reached or exceeded the threshold level.

Pesticide	Active	EPA	Registration	Target	Rationale
Product Name	Ingredient	Number		Pest	for use
Aloft LC G	clothianidin .25% .125%	66330-368		Turfgrass insects	To treat athletic fields for insect disease
Arena	clothianidin .25%	59639-157		turfgrass insects	To treat athletic fields for insect disease
Criterion	Imidacloprid 75%	432-1318		turfgrass insects	control insect diseases

Spectracideprallethrin .025% lambda	9688-190-	wasps/hornetsto protect
cyhalothrin .010%	8845	public from
		stinging
		pests
Advance N-Ethyl	499-459	Ants
dual choice Perfluorooctanesulfonamide		to control
.5%		ant colonies
		past
		threshold
		limits

- Insecticides are only applied by a certified and/or licensed applicator.
- Insecticides are used only when monitoring has shown that insects are present.
- Selective insecticides are used where possible instead of broad spectrum insecticides.
- Insecticide chemical classes are rotated.
- Insecticides that are applied preventatively are used only in areas where insects occurred and were documented the previous year and can be expected to occur in current season.
- Insecticide Use is documented in the **STANDARD WRITTEN NOTIFICATION FORM.**

Weeds

Crabgrass

Dandelions, plaintains, ground ivy, cinquefoil

Describe the monitoring technique you used for the pests above.

Visual inspection when mowing and walking grounds.

Provide information on how you identified the species of pests above.

By visual inspection with help from the lawn care company.

Provide details on the non-chemical control measures have you taken to manage the pests above.

By bagging grass in areas where weeds are present to avoid spreading them.

Describe any alternative management or biological strategies being used or planned to be used, if any.

None

If you use herbicides, describe your rationale for using them for the pests above.

Only when pest has exceeded the threshold level and prevents the fields from healthy playable turfgrass.

Pesticide	Active	EPA	RegistrationTarget	Rationale
Product Name	Ingredient	Number	Pest	for use
Barricade	Prodiamine .43%	961-362	Crabgrass	To control crabgrass on athletic fields
Drive	Quinclorac 15.93%	7969-272	Broadleaf and grassy weeds	Control of broadleaf weeds in turf grass

Prosedge	Halosulfuron-methyl 75%	228-702	Selected broadleaf weeds	Control selected weeds in playing fields and grounds`
Sedgehammer	halosulfuron-methyl 75%	81880-1- 10163	selected broadleaf weeds	Control selected weeds in playing fields and grounds
Siduron	siduron 3.5%	9198-50	Crabgrass, foxtail, barnyard grass	Preemergent weed grass control on Athletic fields
Speedzone	carfentrazone-ethyl .54% 2,4-D 10.49% Mecopop-p acid 2.66% dicamba acid .67%	2217-835	Broadleaf weeds	post emergence control of broadleaf weeds
Tenacity	mesotrione 40%	100-1267	selective weeds	narrow spectrum control of turfgrass weeds
Tupersan	Siduron 4.7%	9198-65	crabgrass and annual weeds	preemergent control of crabgrass on newly seeded areas
Prosecutor	ProGlyphosate 41%	524-536- 10404	Industrial, turf, and weeds	To maintain appearance on ornamentallandscapes and to prevent structural damage to sidewalks and asphalt
Zenivex	Etofenprox 4%	2724-807	Mosquitos	Product used by state agency to control mosquitos

- Herbicides are only applied by a certified and/or licensed applicator.
- Herbicides are applied as a spot treatment when appropriate.
- Herbicides that are applied preventatively are used only in areas where weeds occurred and were documented the previous year and can be expected to occur in current season.
- The herbicide chemical classes are rotated.
- Selective insecticides are used where possible instead of broad spectrum insecticides.
- Herbicide Use is documented in the **STANDARD WRITTEN NOTIFICATION FORM**.

LANDSCAPE MANAGEMENT PLAN

The following areas are priority areas for maintenance: Priority areas for landscaping are athletic fields, grounds around the building including trees and plants, and surrounding grassy areas that need to be maintained.

Cultural Practices

Monitoring Program:

Landscaping is done by the schools groundskeepers. They mulch all planted areas and cut all grass around property. any issues with plants, trees, or other landscapes are addressed by them as needed.

Soil Maintenance:

Soil is tested by our lawn care company once per year and changes to our programs are made based on results.

Fertilizer Use Practices:

Grounds around school buildings are fertilized twice per year, spring and fall, and include no pesticides. Athletic fields are on a fertility program that runs 5-6 applications based on spring start date and fall end date.

Plant Care:

Mulch is used on all non grassy areas around the building, trees, shrubs, and plants to prevent growth of weeds.

Watering:

Only athletic fields are watered. Baseball and field hockey complex has a well with an irrigation system that runs once per day in warm seasons. Other fields use a water cannon which runs as needed and within the towns restrictions.

Tree and Shrub Diseases

Describe the monitoring technique you used for the pests above.

Provide information on how you diagnosed the pests above.

Provide details on the non-chemical control measures have you taken to manage the pests above.

If you use fungicides, describe your rationale for using them in for the pests above.

Describe or identify any alternative management or biological strategies being used or planned to be used

Insects and Related Pests

Describe the monitoring technique you used for the pests above.

Provide information on how you identified the species of the pests above.

Provide details on the non-chemical control measures you have taken to manage the pests above.

If you use insecticides, describe your rationale for using them for the pests above.

Describe or identify any alternative management or biological strategies being used or planned to be used

Weeds

Crabgrass

Describe the monitoring technique you used for the pests above.

Weekly visual inspections of grounds

Provide information on how you identified the species of the pests above.

Past experience, and assistance from lawn care company.

Provide details on the non-chemical control measures have you taken to manage the pests above.

Pulling weeds, covering with mulch in beds, and weedwacking on curbs.

If you use herbicides, describe your rationale for using them for the pests above.

When non chemical measures are not enough to control the pests.

Describe or identify any alternative management or biological strategies being used or planned to be used

none

Pesticide	EPA			
Product Name	Active Ingredient	Registration Number	Target Pest	Rationale for use
Barricade	proprazine	961-362	crabgrass	threshold level exceeded
	.43%			
Siduron	Siduron	9198-50	crabgrass	preemergent control on athletic fields
	3.5%			
Tupersan	siduron	9198-65	crabgrass	Preemergent control of crabgrass on newly seeded lawns
	4.7%			

- Herbicides are only applied by a certified and/or licensed applicator.
- Herbicides are applied as a spot treatment when appropriate.
- Herbicides that are applied preventatively are used only in areas where weeds occurred and were documented the previous year and can be expected to occur in current season.
- The herbicide chemical classes are rotated.
- Selective insecticides are used where possible instead of broad spectrum insecticides.
- Herbicide Use is documented in the **STANDARD WRITTEN NOTIFICATION FORM.**

OUTDOOR MANAGEMENT PLAN

The following areas are priority areas for maintenance: These areas include doorways around the building and or crevices where stinging insects live. The bleachers are inspected for bees nests before football and soccer season as well. Other areas are tennis courts, fences, dugouts, overhead canopies, courtyards, generator, garages, and snack shed.

Cultural Practices

OUTDOOR GROUNDS GENERAL MANAGEMENT PRACTICES

Waste Disposal (trash containers and dumpsters):

All outdoor barrels for trash are emptied twice per week. The open dumpster is emptied when full, about once per month.

Light Management:

Minimum lighting is used for security purposes only. Light fixtures around the building are power washed during summer cleaning.

Excess Water Prevention:

All runoff water goes into underground drainage systems. All parking lot drainage systems work well, and catch basins are cleaned twice per year, spring and fall.

Noxious Weed Management:

Noxious weeds are identified and cut and removed in winter months. most occurring on chain link fence lines which grounds crew clean up on a yearly basis or more if needed.

Playgrounds (if applicable):

N/A

Nuisance weeds in pavement:

First measure is to weed wack them or pull them manually. Parking lots are sealed and cracks filled once every few years as needed.

Storage Sheds (If applicable):

Sheds are used frequently and monitored. Glue boards have been used in the past.

Insects observed in and around outdoor grounds of school property.

Ants

Mosquitoes & Flies

Stinging Insects

Pests

Ants

Mosquitoes & Flies

Stinging Insects

Insects in playground area (if applicable)

Describe the monitoring technique you used for the pests above.

Grounds crew reports where pests are during work week, visual monitoring.

Provide information on how you identified the species of the pests above.

Visual identification, past experience

Provide details on the non-chemical control measures you have taken to manage the pests above.

Keep areas around school clean to make a smaller environment for pests to live

If you use insecticides, describe your rationale for using them for the pests above.

Only for stinging insects if needed and when population exceeds public safety measures

Pesticide		EPA		Rationale for use
Product Name	Active Ingredient	Registration Number	Target Pest	
Spectracide	prallethrin .025% lambda cyhalothrin .010%	9688-19-8845	stinging insects	
Zenivex	Etofenprox 4%	2724-791	mosquitos	public safety
Mavrik perimeter	Tau-fluvalinate	2724-478	mosquitos	public safety
Duet dual action	Prallethrin, sumithrin	1021-1795-8329	mosquitos	public safety
Mosquito free	cedarwood oil, 2 phenylethyl propionate	-	mosquito	organic mosquito repellent
bifenthrin I/T 7.9F	bifenthrin 7.9%	66222-190	structural insects/mosquitoes	to control target pest/public safety

- Insecticides are only applied by a certified and/or licensed applicator.
- Insecticides are used only when monitoring has shown that insects are present.
- Selective insecticides are used where possible instead of broad spectrum insecticides.
- Insecticide chemical classes are rotated.
- Insecticides that are applied preventatively are used only in areas where insects occurred and were documented the previous year and can be expected to occur in current season.
- Insecticide Use is documented in the **STANDARD WRITTEN NOTIFICATION FORM**.

Weeds

Noxious weeds noticed on the school grounds

Poison Ivy

Describe the monitoring technique you used for the pests above.

mapping out areas where poison ivy grows in past years

Provide information on how you identified the species of the pests above.

Past experience and plant identification

Provide details on the non-chemical control measures have you taken to manage the pests above.

plants are cut down from fences, and roots are saw cut and pulled out.

If you use herbicides, describe your rationale for using them for the pests above.

N/A

- Herbicides are only applied by a certified and/or licensed applicator.
- Herbicides are applied as a spot treatment when appropriate.
- Herbicides that are applied preventatively are used only in areas where weeds occurred and were documented the previous year and can be expected to occur in current season.
- The herbicide chemical classes are rotated.
- Selective insecticides are used where possible instead of broad spectrum insecticides.
- Herbicide Use is documented in the **STANDARD WRITTEN NOTIFICATION FORM**.

H. RECORD KEEPING

In the case of King Philip Regional High School, OUTDOOR monitoring records will be maintained through: The use of forms which will be filled out by the person monitoring the facility

I. EVALUATING THE PROGRAM

The IPM plan will be evaluated on a Annually basis.

J. NOTIFICATION REQUIREMENTS & EXEMPTIONS

During the creation of this IPM plan, Larry Azer has assigned committee member Joe Zahner, Jr. with the responsibility of assembling and issuing all the documents that accompany the standard written notification whenever pesticides are applied outdoors.

K. IN THE EVENT OF A HEALTH EMERGENCY

During the creation of this IPM plan, Larry Azer has assigned committee member Joe Zahner, Jr. with the responsibility of applying for an emergency waiver.

L. LIST OF PESTICIDES TO BE USED OUTSIDE THE FACILITY

The following list includes all the pesticides that will be used outside King Philip Regional High School. This list includes all herbicides, fungicides, and insecticides that will be used in the event that chemical is required.

Pesticide Product Name	Active Ingredient	EPA Registration Number	Target Pest	Rationale for use
Spectracide	prallethrin .025% lambda cyhalothrin .010%	9688-19-8845	stinging insects	public safety
Zenivex	Etofenprox 4%	2724-791	mosquitos	public safety
Duet dual action	Prallethrin, sumithrin	1021-1795-8329	mosquitos	public saftey
Criterion	Imidacloprid 75%	432-1318	turfgrass insects	control insect diseases
Tenacity	mesotrione 40%	100-1267	selective weeds	narrow spectrum control of turfgrass weeds
Spectracide	prallethrin .025% lambda cyhalothrin .010%	9688-190-8845	wasps/hornets	to protect public from stinging pests
Aloft LC G	clothianidin .25% bifenthrin .125%	66330-368	Turfgrass insects	To treat athletic fields for insect disease
Arena	clothianidin .25%	59639-157	turfgrass insects	To treat


				athletic fields for insect disease
Tupersan	Siduron 4.7%	9198-65	crabgrass and annual weeds	preemergent control of crabgrass on newly seeded areas
Drive	Quinclorac 15.93%	7969-272	Broadleaf and grassy weeds	Control of broadleaf weeds in turf grass
Prosedge	Halosulfuron-methyl 75%	228-702	Selected broadleaf weeds	Control selected weeds in playing fields and grounds`
Sedgehammer	halosulfuron-methyl 75%	81880-1-10163	selected broadleaf weeds	Control selected weeds in playing fields and grounds
Siduron	siduron 3.5%	9198-50	Crabgrass, foxtail, barnyard grass	Preemergent weed grass control on Athletic fields
Speedzone	carfentrazone-ethyl .54% 2,4-D 10.49% Mecopop-p acid 2.66% dicamba acid .67%	2217-835	Broadleaf weeds	post emergence control of broadleaf weeds
Advance dual choice	N-Ethyl Perfluorooctanesulfonamide .5%	499-459	Ants	to control ant colonies past threshold limits
Prosecutor Pro	Glyphosate 41%	524-536-10404	Industrial, turf, and ornamental weeds	To maintain appearance on landscapes and to prevent structural damage to

Zenivex	Etofenprox 4%	2724-807	Mosquitos	sidewalks and asphalt
				Product used by state agency to control
Barricade	prodiamine .43%	961-362	crabgrass	mosquitos threshold level exceeded
Siduron	Siduron 3.5%	9198-50	crabgrass	preemergent control on athletic fields
Tupersan	siduron 4.7%	9198-65	crabgrass	Preemergent contron of crabgrass on newly seeded lawns
Barricade	Prodiamine .43%	961-362	Crabgrass	To control crabgrass on athletic fields
Mavrik perimeter	Tau-fluvalinate	2724-478	mosquitos	public safety
Mosquito free	cedarwood oil, 2 phenylethyl propionate	-	mosquito	organic mosquito repellent
bifenthrin I/T 7.9F	bifenthrin 7.9%	66222-190	structural insects/mosquitoestarget	to control pest/public safety

M. WELL WATER SYSTEM

The school has an on site well water system. No pesticide or fertilizer applications will take place within the Zone I of the well.

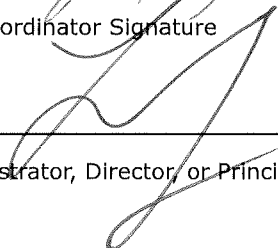
I attest, to the best of my knowledge, that the above information is complete, accurate and true



 IPM Coordinator Signature

9, 5, 2019

 Date



 Administrator, Director, or Principal

9, 4, 19

 Date

Outdoor IPM Plan originally submitted on: 6/15/2015 8:49:00 PM

Plan updated by Joseph F Zahner Jr on: 9/3/2019 12:50:00 PM