



ROCHESTER PARK AND RECREATION DEPARTMENT

POLICY ON INTEGRATED PEST MANAGEMENT

PURPOSE

To establish a policy to regulate the management of pests within park lands and/or public lands under the stewardship of the Rochester Park & Recreation Department.

BACKGROUND INFORMATION

This Department has long been proactive in the varied use of methods for managing the pests that impact trees, shrubs, other vegetative material, as well as maintained turf and athletic field areas. This activity is commonly called Integrated Pest Management.

US - EPA defines Integrated Pest Management as the following:

Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.

IPM is not a single pest control method but, rather, a series of pest management evaluations, decisions and controls.

Though current policy has not been formally documented this Department has utilized this common sense approach of integrated pest management within our 4000 acre park system. Because our park system is so large and diverse this Department has distinct land areas and different demands upon the property which require different methods for integrated pest management. Those different types of areas include:

- Natural areas – commonly found within the flood control lands/reservoirs, within larger parks or along creeks/rivers, and even within golf course areas
- Mowed turf – commonly found in our neighborhood parks and within the flood control corridor
- Irrigated Turf areas commonly found in golf course and within more high visibility urban areas (Peace Plaza or Civic Center Drive/2nd Street)
- Athletic Fields/Complexes (irrigated and non-irrigated)
- Forest/woodland management – found in many areas of our parks and golf courses.
- Landscaped areas – found within developed sites like around buildings, signage, bridges & roadways
- Playgrounds – typically including swings, slides, play equipment within the confines of a mulched/sand/rubber play area.
- Hardscape surfaces – parking lots, paths, sidewalks, patios, etc.

Though these types of areas may have differing or distinct uses they may often be found together at any number of sites throughout the park system. These diverse uses within the parks does complicate the method or methods of pest management that may need to be applied at any given park site.

Some of the main considerations when implementing Integrated Pest Management include setting of tolerance thresholds for the pest, identifying and monitoring the pests, prevention of the pests and controlling the pest.

Management control of the pest during the prevention stage and the active controlling stage includes biological methods, chemical methods and/or manual methods. The Park Department utilizes all three methods in its practices. However, each method can have other unintended consequences. For example the use of manual control methods may include spending more staff time, and may create the need for more trips to the site for control (which means higher labor costs and more burning of fossil fuel). Therefore a combination of the control methods and the flexibility of the use of those methods is critical in the meeting the needs of the differing users.

Of the three methods of control, the chemical method tends to be the method which can create the most controversy. Chemicals utilized generally include growth regulators or stimulators like fertilizers, herbicides, pesticides, and fungicides. Some of these products may include naturally occurring components as well as synthesized chemicals.

The Rochester Park and Recreation Department does utilize chemicals as one of its control methods. These chemicals include fertilizers, pesticides, fungicides, and other chemicals for the protection of the maintained assets, the safety of the public, to meet user demands and our fiduciary responsibility. We attempt to use practices and procedures associated with the procurement, handling, application, and storage of fertilizers and pesticides in an environmentally sound and scientific manner and to comply with State and Federal laws.

OBJECTIVES

The following outlines the objectives of the program to meet conflicting user desires, environmental stewardship, safety and fiscal constraints:

1. Implement Integrated Pest Management programs for the different sites and area type of the park system.
2. Minimize, reduce or eliminate the use of pesticides and fertilizers whenever feasible consistent with the Integrated Pest Management program to promote good environmental stewardship.
3. Maintain turf grass locations to an acceptable level without excessive use of fertilizers and pesticides.
4. Provide information on the chemicals utilized in the system.
5. Provide notification of locations of chemical use.

NOTIFICATION

Generally, the Park and Recreation Department will utilize Integrated Pest Management without specific notification to the public.

However, when utilizing chemical applications, the Park and Recreation Department will comply with Labeling Instructions, State and Federal Law regarding posting and notification of the chemical used. Except for spot applications of less than 200 square foot in size, the Park and Recreation Department will monthly (generally from May to September) place a notification on the Department's website for anticipated locations and date ranges chemical applications that are anticipated to be applied. Since chemical application can be affected by weather conditions, adding a specific date is not practical. Additionally fungicide applications require immediate response upon discovery of an issue, pre-notification via the web site is unlikely in such event.

Additionally, the Departmental website information/notification will include chemicals utilized in the system (which may include the Material Safety Data Sheet or other suitable documentation).

STAFF TRAINED PROFESSIONALS AND CONTRACT SERVICES

The Park and Recreation Department hires and retains on site staff licensed in the State for pesticide applications. Chemical application services are performed directly by these licensed individuals or under the direction of those state licensed individuals consistent with State Law. Additionally staff is provided opportunities for continuing education on the subject matter.

This Department also periodically retains services of professional firms to perform chemical applications. This Department only contracts with those firms that have licenses and insurance for such work.

GENERAL INTEGRATED PEST MANAGEMENT STRATEGY

Natural areas & un-mowed areas

- 1) Pest tolerances include:
 - a) State identified noxious weeds 0% (thistle, etc)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds – 100%
 - e) Turf disease – 100%
 - f) Grassy weeds – 100%
 - g) NOTE: the exception to these tolerances is actively managed areas to create, recreate, and maintain identified prairies, butterfly gardens, or other special habitat areas or to control a specific item like buckthorn. In such cases these areas may have specific IPM plans developed.
- 2) Control methods generally utilized include:
 - a) Introduction of biodiversity or other biological methods
 - b) Controlled Burns
 - c) Animal control (i.e. goat grazing)
 - d) Periodic mowing
 - e) Mechanical removal or cutting
 - f) Manual removal of invasive
 - g) Application of spot treatment of chemicals

Mowed non- irrigated turf areas

- 1) Pest tolerances include:
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds – 60%
 - e) Turf disease – 60%
 - f) Grassy weeds – 60%
- 2) Control methods generally utilized include
 - a) Regular mowing
 - b) Aeration
 - c) Mechanical removal or cutting
 - d) Manual removal of invasive
 - e) Periodic application fertilizers and or herbicides.
 - f) Application of spot chemical treatments to assist in operations
 - g) Application of area wide chemical treatments
 - h) Chemical tree injections for tree pest/diseases.

Irrigated Turf Area

- 1) Pest tolerances include: i.e. Fairways, right of way, building sites
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds – 25% - (Fairways – 2%)
 - e) Turf disease – 25% - (Fairways – 2%)
 - f) Grassy weeds – 25% - (Fairways – 2%)
- 2) Pest tolerances include: i.e. Tees, Greens, Peace Plaza
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds – 0%
 - e) Turf disease – 0%
 - f) Grassy weeds – 1%
- 3) Control methods generally utilized include
 - a) Regular mowing
 - b) Over-Seeding
 - c) Aeration
 - d) Mechanical removal or cutting
 - e) Manual removal of invasive
 - f) Periodic application fertilizers, herbicides, fungicides, growth regulators
 - g) Application of spot chemical treatments to assist in operations
 - h) Application of area wide chemical treatments
 - i) Chemical tree injections for tree pest/diseases.
- 4) Note: there are a few high visibility locations of non-irrigated turf that will be maintained to an irrigated turf level. (Central Park, portions of Civic center Drive median, portions of Mayo Park, portions of Soldiers Field Park, and portions of Cascade Lake Park)

Athletic Fields/Complexes (playing surfaces)

- 1) Pest tolerances include: i.e. irrigated fields
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds – 10%
 - e) Turf disease – 10%
 - f) Grassy weeds – 10%
- 2) Pest tolerances include: i.e. non-irrigated fields (does not include practice field locations)
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds – 15%
 - e) Turf disease –15%
 - f) Grassy weeds –15%
- 3) Control methods generally utilized include
 - a) Regular mowing
 - b) Over-Seeding
 - c) Aeration
 - d) Mechanical removal or cutting
 - e) Manual removal of invasive
 - f) Periodic application fertilizers, herbicides, fungicides.
 - g) Application of spot chemical treatments to assist in operations
 - h) Application of Field wide chemical treatments

Forest/woodland management

- 1) Pest tolerances include:
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds – 100%
 - e) Turf disease – 100%
 - f) Grassy weeds – 100%
 - g) NOTE: the exception to these tolerances is actively managed areas to create, recreate, and maintain identified Oak Savanna, Maple Basswood forest or other special habitat areas. In such cases these areas will have specific IPM plans developed.
- 2) Control methods generally utilized include
 - a) Introduction of biodiversity or other biological methods
 - b) Controlled Burns
 - c) Animal control (i.e. goat grazing)
 - d) Periodic mowing
 - e) Mechanical removal or cutting
 - f) Manual removal of invasive
 - g) Application of spot chemical herbicides

Landscaped areas

- 1) Pest tolerances include: i.e. irrigated fields
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds –0%
 - e) Turf disease – 0%
 - f) Grassy weeds – 0%
- 2) Control methods generally utilized include
 - a) Mechanical removal or cutting
 - b) Manual removal of invasive
 - c) Periodic application fertilizers, herbicides, fungicides.
 - d) Application of spot chemical herbicides

Playgrounds

- 1) Pest tolerances include:
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds –0%
 - e) Turf disease – 0%
 - f) Grasses or other grassy weeds – 0%
- 2) Control methods generally utilized include
 - a) Mechanical removal or cutting
 - b) Manual removal of invasive
 - c) Application of spot chemical herbicides

Water bodies, creeks, rivers (and the areas immediately adjoining them)

- 1) Pest tolerances include:
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds –100%
 - e) Turf disease –100%
 - f) Grasses or other grassy weeds – 100%
 - g) Aquatic weeds – 100%
- 2) Control methods generally utilized include
 - a) Mechanical removal or cutting
 - b) Manual removal of invasive
 - c) Application of spot chemical herbicides

Hardscape Surfaces

- 1) Pest tolerances include: i.e. irrigated fields
 - a) State identified noxious weeds 0% (subject to funding and staffing)
 - b) State identified insect invasive pest 0% (i.e. Emerald Ash Borer)
 - c) State identified diseases 0% (i.e. Dutch Elm Disease)
 - d) Broadleaf weeds –0%
 - e) Turf disease –0%
 - f) Grasses or other grassy weeds – 0%
- 2) Control methods generally utilized include
 - a) Mechanical removal or cutting
 - b) Manual removal of invasive
 - c) Application of spot chemical herbicides

NOTE: Mitigation of Pests as identified herein to meet the tolerances outlined is subject to staffing availability and funding availability. Areas that are more natural or native does not receive the same attention that developed portions of the City receive and may only be addressed on a complaint basis.

Historical Chemical Application

Over the past several years the Park and Recreation Department has significantly reduced its use of chemicals within the 4200 acre park system. The most recent years have included the following chemical use:

- Natural areas & un-mowed area – commonly found within the flood control lands/reservoirs, within larger parks or along creeks/rivers, and even within golf course areas
 - Chemical application has been limited to spot spraying for invasive pests including noxious weeds. Additionally spraying has been utilized to thwart the growth or regrowth of Buckthorn and other wood vegetation (especially in the flood control below the High water elevation)
- Mowed turf – commonly found in our neighborhood parks and within the flood control corridor
 - Normally less than 20 parks per year covering approximately 100 acres have had selective herbicides applied to the parkland area.
 - Herbicides are also sprayed around the tree base locations to minimize trimming activities and damage by large mowers.
 - Chemical application has also been utilized in spot locations to control noxious weeds.
- Irrigated Turf areas commonly found in golf course and within more high visibility urban areas (Peace Plaza or Civic Center Drive/2nd Street)
 - Normally the areas noted receive selective herbicides application covering approximately 100 - 150 acres per golf course in addition to approximately 20 acres elsewhere.
 - Fertilizers are utilized annually within the fairways, on the tees, greens, and on the Peace Plaza. Limited fertilizer use occurs for right of way areas. Land area applied covers approximately 100 - 150 acres per golf course in addition to approximately 20 acres elsewhere.
 - Fungicides are utilized on tees, greens, and in the Peace Plaza locations as needed.
 - Herbicides are also sprayed around the tree base locations to minimize trimming activities and damage by large mowers.
 - Chemical application has also been utilized in spot locations to control noxious weeds which may occur adjoining the usable surfaces.

- Golf courses have been treating for Japanese beetles over the last several years with selective pesticides.
- Athletic Fields/Complexes (irrigated and non-irrigated)
 - Normally 1 or 2 athletic fields or parks per year covering approximately 50 acres have had selective herbicides applied to the parkland area.
 - Fertilizers are annually utilized at 25% of the athletic fields covering approximately 220 acres.
 - Fungicides are utilized on a limited basis.
 - Herbicides are also sprayed around the tree base locations adjoining the fields to minimize trimming activities and damage by large mowers.
 - Chemical application has also been utilized in spot locations to control noxious weeds which may occur adjoining the fields.
- Forest/woodland management – found in many areas of our parks and golf courses.
 - Chemical application has been limited to spraying for invasive pests including noxious weeds. Additionally spraying has been utilized to thwart the regrowth of Buckthorn, Garlic Mustard, or other undesirable plant material.
 - Treatment for Emerald Ash Borer and Dutch Elm Disease also occurs based on specific management plans.
- Landscaped areas – found within developed sites like around buildings, signage, bridges & roadways
 - Spot spraying of selective chemical herbicides are used to control volunteer growth within the landscape areas.
- Playgrounds – typically including swings, slides, play equipment within the confines of a mulched/sand/rubber play area.
 - Spot spraying of chemical herbicides are used to control volunteer growth within the play areas mostly around the base of the play equipment.
- Hardscape surfaces – parking lots, paths, sidewalks, patios, etc
 - Spot spraying of chemical herbicides are used to control volunteer growth within the cracks of the hardscape surfaces.

NOTE: This Integrated Pest Management Policy does not include management of other insects (Asian beetle, mosquitos, Japanese beetle, etc) or animals (ie crows, geese, beaver, muskrat, mice, snakes etc). These nuisances may be addressed by the City or Park Board independent of this IPM policy.