Portland Community College

INTEGRATED WEED MANAGEMENT PLAN

2019

developed to manage, control or eradicate a noxious weed(s) from a cooperative weed management area or other weed management area. Integrated weed management strategies may include, but are not limited to, prevention, cultural, mechanical, chemical and biological methods.

A decision making process to determine if, where, when and how noxious and nuisance weed problems will be managed. An IWMP includes all potential control strategies, but prioritizes non-chemical controls whenever possible in order to perpetuate a sustainable environment.

Prevention – Any action that reduces the potential for the introduction or establishment of plant species in areas not currently infested with that species or any action that deters the spread of noxious or nuisance weeds.

Cultural Control – The use of sound horticultural practices to optimize plant health and to suppress noxious or nuisance weed growth and the use of site-appropriate design.

Mechanical Control – The use of a variety of tools and equipment for eliminating noxious or nuisance weeds.

Chemical Control – The application of herbicides to kill noxious or nuisance weeds.

Biological Control – The use of biological control agents that act as predators, parasites or pathogens of noxious or nuisance weeds. The use of other beneficial organisms that improve plant health by enhancing soil quality.

Natural Herbicides –They include items such as vinegar/soap solutions. Natural herbicides are allowed for use in all areas. They do not require approval or public notification.

Threshold – The term "threshold" refers to the point at which noxious or nuisance weed injury can no longer be tolerated without compromising the health, aesthetic value, desired function or economic value of the surrounding ecosystem. Once a threshold is being approached, some control measure may be necessary to suppress weed activity to acceptable levels.

Decision Making Process:

The decision making process helps the College determine **if** treatment action is necessary, **where** treatment activity should take place, **when** action should take place and **which** treatment strategy or combination of treatment strategies are best to use.

1. **IF treatment action is necessary:** Instead of taking action at the first sign of a potential weed problem, the IWM process begins with asking whether any actions are needed by assessing the threshold level on a case by case basis. Certain weeds may pose a greater

discussed in the previous section. Athletic fields require a higher level of maintenance than most turf areas at the college. While nuisance weeds (such as dandelions) can be tolerated in other areas of the College they cannot be so easily dismissed in the athletic field areas due to the potential safety impact to the users/athletes. Prevention is the highest priority in this area. Athletic field turf needs to be carefully maintained with appropriate watering, fertilization, aeration, over-seeding and frequent mowing. The use of natural herbicides should be used first before considering traditional herbicides. If the grounds manager feels like traditional herbicide treatment of noxious or nuisance weeds is warranted after all other feasible treatment options have been utilized, an herbicide treatment request will be submitted If herbicide use is approved, then the public must be notified according to the Colleges IPM plan.

- **Moderate Maintenance Areas**

The occurrence of noxious weeds should be addressed using the decision making process discussed in the previous section. No herbicide treatment of nuisance weeds (such as dandelions) is permitted on College property around BES storm water facilities and day-care centers. Nuisance weeds should be managed through cultural, mechanical and biological controls (if available), natural herbicides or some combination of these mechanisms. If the grounds manager feels like traditional herbicide treatment of noxious weeds is warranted after all other feasible treatment options have been utilized, an herbicide treatment request will be submitted. If herbicide use is approved, then the public must be notified according to the Colleges IPM plan. Preventative and cultural controls are also useful in minimizing weed growth such as:

- Landscaping with aggressive plant material in mass plantings to reduce the space, light and nutrient availability to potential weeds.
- Making compost to eliminate weed seeds.
- Using landscape material or mulch to conserve moisture and reduce the potential for weed seed germination.
- Provide growing conditions that allow plants to thrive and compete with weeds.
- Design and construct landscape beds in a manner that will optimize growing conditions for plants.

- **Undeveloped Green Spaces and other Low Maintenance Areas**

Natural and Sensitive Areas Program

This program includes stormwater swales, wetlands, riparian corridors, shorelines and aquatic habitats within the Colleges property's. These areas are College property with critical environmental resources, sheltering native ecosystems and wildlife habitat. The College is also committed to protecting the water quality for the benefit of their aquatic inhabitants as well as those that rely upon these waterbodies as sources of potable drinking water. Traditional herbicide use is not permitted in natural and sensitive areas for noxious or nuisance weeds. The occurrence of all weeds should be addressed using the decision making process discussed in the previous section, utilizing preventative, cultural, mechanical, natural herbicides and biological controls only.

Herbicide Request Procedure:

If the use of traditional herbicides is desired, a request form should be completed and submitted to the IPM coordinator / Grounds manager. Use of Natural Herbicides do not require a request form or public notification.

Herbicide Notification Procedure:

Portland Community college recognizes that there is public concern over herbicide use as a weed management strategy due to sensitivity to pesticides and/or lifestyle practices. Therefore, the College will provide the public with advance notice of herbicide use according to the following:

- Signs posted at least 24 hours before application of the herbicide product, leaving signs in place for at least 72 hours after application.
- Signs will be posted at public access points and around the perimeter of the area where herbicide will be applied.
- Signs must be standardized and easily recognizable
- Each sign must contain the following information:
  - The name of the active ingredient in the herbicide product
  - The targeted weed
  - The application date
  - The signal word indicating the toxicity category of the herbicide product
  - The name and contact information of the individual that is responsible for fielding questions regarding the application
- Copies of posted signs shall be retained for record keeping purposes for 4 years.

Cultural–

Cultural control techniques include (but are not limited to) the following:

- Proper identification of noxious and invasive weeds.
- Proper selection and establishment of turfgrass and ornamental plants.
- Proper mowing practices.
- Adequate fertilization and watering.
- Using mulch to conserve moisture and reduce the potential for weed seed germination.
- Proper species selection suitable for a particular soil type, moisture regime and growing season.
- Revegetation.

Mechanical–

Mechanical control techniques include (but are not limited to) the following:

- Hand pulling.
- Clipping seed heads.
- Using shovels and similar bladed hand tools to sever tap roots below ground.
- Mowing.
- Using weed whips.
- Soil solarization.
- Using a propane torch.

Biological–

Biological control techniques include (but are not limited to) the following:

- **Classical** – initially small numbers of natural enemies are released in target pest areas for long-term control.
- **Augmentative** – large numbers of natural enemies are released to control a target pest for a short amount of time.
- **Conservation** – changing environmental conditions to aid in natural enemy survival.

The approved and recommended list of biological control agents for noxious weeds by the Oregon State Department of Agriculture and the Bureau of Land Management .