

Memorandum

Date: January 27, 2014
To: Mayor Piercy and City Council
From: Kevin Finney, Park Operations Manager
Subject: Enhancing Current Integrated Pest Management Implementation

The City Council has scheduled a work session for January 27, 2014 to discuss enhancing the City's implementation of Integrated Pest Management (IPM) on City lands. Staff has worked with Councilor Syrett to develop a draft resolution for Council consideration and the intent and implications of that resolution will be communicated in the agenda item summary. In this memo, staff provides responses to the specific questions presented in the Work Session Request Form. At the work session, staff will answer more general questions and provide the broader background on the concept of integrated pest management (IPM) and the City's implementation of IPM.

The Work Session Request questions and the responses from the Parks and Open Space Division staff are presented below.

Should the City of Eugene adopt policy to enhance current Integrated Pest Management protocols with a "Pesticide Use as a Last Alternative" and what challenges and benefits would result from such a policy?

The "pesticide use as a last alternative" approach to pest management is an integral part of POS' adopted IPM protocols. The POS IPM Policy requires that before any pesticide is applied:

- Thresholds for acceptable pest populations are set,
- the pest population is monitored, and
- practical preventive actions are taken.

If a pest population exceeds the tolerable threshold, and practical non-pesticide prevention methods are not effective in reducing the population below the threshold, control measures may be taken. The lowest-risk control method, for example hand-pulling weeds, is used first. If lower-risk methods are unsuccessful in controlling the pest, alternate methods such as targeted spraying may be employed.

Should the City of Eugene adopt a city-wide policy creating "pesticide-free parks" and what would be required to expand the "pesticide-free parks" protocol currently used at a select number of city parks to all city parks?

The current POS policy provides for adding parks to the Pesticide-Free Parks program as they are adopted by groups of volunteers who agree to help manage the weeds on the site. If all developed parks in the City were managed without the use of pesticides, the appearance and function of the parklands would change significantly unless additional resources were available to manage the pests. While volunteers play a vital role in the maintenance of Eugene's Pesticide-Free Parks, they have not always been able to keep up with the weeds in the PFP parks.

A 2007 study completed by Portland Parks and Recreation in partnership with the Northwest Center for Alternatives to Pesticides, 2004-2007 Pesticide Free Parks Trial Program, compared the cost of managing neighborhood parks through a pesticide-free parks program to the cost of managing the parks through the agency's existing IPM program. The study results showed that the PFP approach increased weed-management costs by nearly ten times, with most of the agency's costs involved with the volunteer coordination. Based on the Portland study, adoption of the PFP approach in all of Eugene's developed parks would cost about \$350,000 for one-time start up and at least \$275,000/year in additional ongoing operating costs. In addition, the program would likely require at least 19,000 hours of volunteer labor each year. Portland's study used medium-sized parks where weed pressure and landscape complexity were low, so the costs for Eugene's more complex system would likely be higher. The Portland research excluded natural areas from their study in order to avoid impacts on the existing weed management strategies in the natural areas.

An analysis contained in the report concluded that estimated carbon release per year was about three times higher for the PFP program compared to the IPM management model, largely due to the propane fuel used to burn weeds and the carbon generated by the volunteers' transportation to the sites.

Which parks currently have this protocol and what are the challenges and benefits for those parks?

As of December 2013, there are nine parks in Eugene's Pesticide-Free Parks Program:

- Awbrey Park, (Ward 5)
- Berkeley Park, (Ward 8)
- Brewer Park, (Ward 5)
- Friendly Park, (Ward 1)
- Gilbert Park, (Ward 7)
- Rosetta Park, (Ward 7)
- Scobert Gardens Park, (Ward 7)
- Shadow Wood Park, (Ward 2) and
- Washington Park (Ward 1).

Six of Eugene's pesticide-free parks comprise the original cohort of parks, selected in 2006 for the ease with which they could be maintained without pesticides or significant other inputs. Rosetta, Washington and Friendly Parks were added to the PFP program over the next seven years, through agreements with neighbors and other volunteers who committed to assisting with

the weed management in their park. The size, complexity, neighborhood values, and the number of park amenities at a park have a significant impact on the success of the pesticide-free approach to management. Washington Park, with ball fields, shrub beds, a playground, and a spray play area, has presented challenges for the program and volunteers have not always been able to keep up with the weed management at the park. Some neighbors of Rosetta Park have objected to the less-manicured appearance of their neighborhood park but in general complaints about the appearance of pesticide-free parks are unusual.

Eugene's Pesticide-Free Parks program provides parks throughout the City where park users can play and relax in an outdoor environment maintained without pesticides. People who are especially sensitive to chemicals, parents of young children, and other members of the community can recreate in a pesticide-free environment in their part of town. The pesticide-free parks are also community showcases for the many effective non-chemical methods that are available to manage pests.

What would be the challenges and benefits of expanding this protocol to all City parks?

The benefits of expanding the PFP protocol to all City parks would include: likely expansion of awareness of alternative weed-control methods and an increased sense of safety for individuals who are concerned about environmental exposures to chemicals.

The expansion of the Pesticide-Free-Parks program on any large scale presents many substantial challenges. The projected up-front expenses and increased ongoing costs for parks maintenance and volunteer coordination are outlined above. In Portland's study, eliminating the use of herbicides, and managing weeds through a volunteer-based program increased costs nearly tenfold. Pesticide applications in Eugene's developed parks are made in support of General Fund services and cost increases to the weed management program would have an impact on that funding source and potentially on other General Fund services.

If the Pesticide-Free Parks program were expanded from the developed parks to include the natural areas, such as Spencer Butte Park, the Ridgeline Park system (including the Ridgeline Trail), Delta Ponds, and the West Eugene Wetlands, where targeted use of herbicides is critical for habitat management and restoration work, we would expect to see significant expansion of invasive weed populations, loss of native habitat, and possible extirpation of sensitive species. Weed species such as ivy, blackberry, and false brome have spread throughout the City's natural areas, smothering and outcompeting native trees, shrubs and understory plants. Hand pulling and other volunteer activities have not proven effective in managing these invasives in natural areas and environmentally-aware land managers in POS and organizations such as The Nature Conservancy have developed protocols for effectively managing invasive weeds with an IPM approach that includes herbicides. POS staff has used these IPM protocols with great success in City natural areas, allowing enhancement and restoration of habitat previously over-run with invasive species. Some granting agencies, such as the Oregon Watershed Enhancement Board (OWEB), will not grant funds for pesticide-free invasive weed control projects because they have not proved to be effective. Without the option of using herbicides to implement the best management practices expected by OWEB, City restoration projects would be ineligible for funding by this major granting agency.

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