



Purpose

It is the policy of the City of Seattle to promote environmentally sensitive landscape pest and vegetation management by phasing out the use of the most hazardous pesticides and reducing overall pesticide use while preserving landscape assets and protecting the health and safety of the public and our employees. The following strategy describes how the City will achieve these goals and establishes pesticide reduction targets and timelines.

Background

The City of Seattle's Environmental Management Program was developed in 1999 to promote environmental stewardship in City operations. The pesticide use reduction strategy is an outgrowth of two policies developed under that program. The Landscape and Grounds Management policy promotes the design, construction and maintenance of City landscapes in a way that protects and enhances the region's natural resources and public health. The Landscape and Grounds Management Guidelines were developed to implement that policy, including promoting the use of Integrated Pest Management (IPM), which favors the use of pest prevention/tolerance over control.

It is the City's policy to reduce the toxicity and amount of hazardous materials used in City operations. The Chemical Use Policy sets forth a framework for evaluating hazardous materials used by the City and prioritizing products for phase-out and replacement with less hazardous alternatives.

Regional Integrated Pest Management Initiative

The listing of Puget Sound Chinook salmon under the Endangered Species Act has heightened awareness of the impact common practices have on the environment. Recent studies documenting the presence of pesticides in area streams and effects of pesticides on salmon point to the need for public agencies to serve as models of environmental stewardship in landscape management.

Representatives from local jurisdictions in King, Pierce, and Snohomish counties developed a model Tri-County IPM Policy and Guidelines in support of the goal of reducing the potential impact of pesticide use on threatened and endangered species. This pesticide use reduction strategy is consistent with the Tri-County Policy and Guidelines.

Strategy Approach

The two main components of this strategy are (1) to eliminate the use of the most hazardous pesticides (as defined below) and (2) to achieve a 30% reduction in overall pesticide use. The following paragraphs discuss the approach to achieving these goals.

Eliminating use of the most hazardous pesticides

Based on the general criteria in the Chemical Use Policy, pesticide-specific review criteria were developed. A hazard assessment was then conducted on the pesticides used by the City to prioritize products for phase-out. Products were categorized into three tiers ranging from greatest potential hazard -Tier 1 to least -Tier 3. New products considered for use will undergo the same analysis and product tier designations will be re-evaluated, as additional information becomes available.

Products meeting any of the following criteria were placed in Tier 1.

Tier 1 Criteria

- Products assigned by the U.S. Environmental Protection Agency (EPA) to Hazard Category I: Signal word DANGER appears on label
- * Restricted use pesticides – use of the product is restricted to certified pesticide applicators (except aquatic herbicides¹)
- * Products that cannot be disposed of because of dioxin contamination
- * Products with active ingredient on the state list of acutely dangerous wastes (P list- Washington State Dangerous Waste Regulations)
- * Products with known, likely, or probable carcinogens as active ingredients (as identified by U.S. EPA, State of California, National Toxicology Program, or International Agency for Research on Cancer)
- * Products with reproductive toxicants as active ingredients (California Proposition 65 list)
- * Products with known or probable endocrine disruptors as active ingredients (State of Illinois EPA)
- * Products labeled as highly toxic or extremely toxic to birds, aquatic species, bees, or wildlife. (Exceptions for products used only indoors; exception to bee toxicity will be needed for products intended to control bees, wasps, or hornets)
- * Products that are persistent in the environment - defined as those with active ingredients with soil half-lives greater than 100 days. (Possible exception for products used only indoors.)
- * Products that move readily in the environment and may impact ground or surface water - defined as those with active ingredients with mobility ratings high or very high or with specific label warnings about groundwater hazard. (Possible exception for products used only indoors.)

¹Note: aquatic herbicides are not included in this criterion because all aquatic applications in the state are restricted because of the need for a permit rather than because of particular properties of the chemicals involved.

Target: Tier 1 herbicides and insecticides have been targeted as first priority for phase-out. Exceptions to the restriction will be considered as described below. Affected departments will designate IPM Coordinators to evaluate exception requests.

Exceptions

Exceptions to the restrictions will be considered based on:

- a description of the pest problem,
- rationale for chemical control with the proposed product,
- a description of how the product will be used,
- legal requirements,
- public health and safety considerations,
- preservation of landscape assets, and
- an evaluation of all feasible alternatives including non-chemical and no action alternatives; the safety, health, and environmental impacts of the alternatives also will be evaluated.

Exceptions may be granted on a one-time-only basis or as a programmatic exception that applies across all departments.

One-Time-Only Exceptions - The Departmental IPM Coordinator and the Office of Environmental Management will be responsible for evaluating and approving one-time-only exceptions within each Department.

Programmatic Exceptions - Departmental IPM Coordinators and the Office of Environmental Management will meet, as necessary, to evaluate and approve or deny programmatic exceptions. All programmatic exceptions will be re-evaluated annually by the IPM Coordinators and the Office of Environmental Management based on a review of alternatives and a re-evaluation of the need for the control.

For all exceptions granted, a Best Management Practice will be required to minimize human health and environmental risk.

Overall Pesticide Use Reduction

City staff have already significantly reduced the amount and toxicity of pesticides used through IPM. In order to identify ways to reduce pesticide use further, a survey of specific pest management strategies was conducted and general alternative controls were suggested. Many of the suggestions came from City gardeners based on their knowledge and experience. Specific pest management strategies were evaluated for ornamentals, turf, trees/woody brush, electrical substations, rights-of-way, and golf courses. Alternative pest management strategies identified include:

- Pest prevention techniques like mulching, irrigating, fertilizing, and using pest-resistant species;
- Mechanical pest control techniques like flame weeding, hand pulling, string trimming, and hot water weeding; and
- Alternative chemical controls like neem oil products, active bacillus products, and potassium bicarbonate products.

Increasing pest tolerance thresholds was also suggested. Pesticide use reduction decisions will consider preservation of the landscape asset, safety, and legal requirements.

Target: Reduce overall pesticide use by 30% by the end of 2002.

Implementation Strategy

In order to plan for these long-term investments, over the next year we will conduct further research into alternative pest control methods and initiate pilot studies to evaluate alternative effectiveness and potential for use on a citywide scale. The lessons learned from this work will help us effectively target our resources. Over the next year, we will develop a pesticide reduction program including the following elements:

- Research alternative pest control equipment, products, and techniques;
- Conduct pilot studies to evaluate alternative effectiveness and potential for use on citywide scale;
- Develop maintenance standard trial sites to monitor increased pest tolerance thresholds and any resulting damage;
- Conduct public outreach to both increase awareness of and gauge reactions to changing maintenance standards and alternative approaches;
- Partner with private entities to leverage community support for reduced pesticide use through volunteer programs; and
- Pursue alternative funding sources.

For more information about the City's pesticide use reduction strategy and program plan, please contact Tracy Dieckhoner in the Office of Environmental Management at 206/386-4595.