State of Washington Capitol Campus

Grounds Management Plan

West Campus, East Campus and Parks

2023-2025

Effective: July 1, 2023

Washington State
DEPARTMENT OF
ENTERPRISE SERVICES

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Contents

Introduction and Goals

The Department of Enterprise Services (DES), Buildings & Grounds (B&G) Division, developed "The State of Washington Grounds Management Plan for the Capitol Campus", which is a comprehensive document organized to assist in the planning and care of the Capitol Campus landscape. This document offers guiding principles and standards for grounds management practices, resource utilization and quality assurance.

Goals for the grounds management plan include strategies to:

- Provide a safe and welcoming experience for campus tenants and visitors.
- Develop the grounds based upon the Olmsted vision and principles, where applicable.
- Manage the grounds using current best management practices for sustainability and optimum plant health.
- Prioritize campus areas for various standard levels of care.
- Utilize available resources to achieve priorities.
- Utilize a quality assurance program that will guide resource allocation.
- Continue to meet the requirements for being a Level 1 internationally accredited arboretum

Prioritization

Prioritization of time and material resources will be based upon the following criteria:

1. Life and safety
2. Visitor services support
3. West Campus inner core aesthetics
4. General landscape care across rest of campus

Landscape Standards and Design Guidelines

The design of new plantings on west campus shall follow the recommendations and intent of the West Capitol Campus Historic Landscape Preservation Master Plan developed by Mithun in 2009.

Plant and irrigation installations shall follow the following sections of the DES Facilities Design Guidelines and Construction Standards:

- 32 84 00: planting irrigation

- 32 90 00: planting
- 32 91 00: planting soil

Turfgrass Management Plan

New Turf Areas
All new turfgrass areas will be irrigated with an automatic system.

Prior to turf establishment, soils should be mechanically aerated with a rototiller or equivalent. If new soil is required to be added to establish the correct finish grade, a turf mix soil will be used.

Most of the turfgrass on the west Capitol Campus is a unique blend of turfgrass species that is referred to as “Capitol Campus Original percent turf mix, comprised of 40 percent creeping red fescue, 40 percent Fenway chewings fescue and 10 percent Highland Colonial bentgrass. This original blend is still available locally from Country Green Turf Farms. This blend is only available from seed currently, not sod. All new turf areas and renovated turf areas on west campus with the exception of the Sid Snyder berms and the flag circle/four corners area should be seeded with the Capitol Campus Original turf mix. Other areas should be seeded or sodded with a perennial ryegrass blend.

Grass seed should be lightly covered with sphagnum peat moss or other organic material to protect seeds from bird predation and to assist in keeping seeds moist for optimum germination.

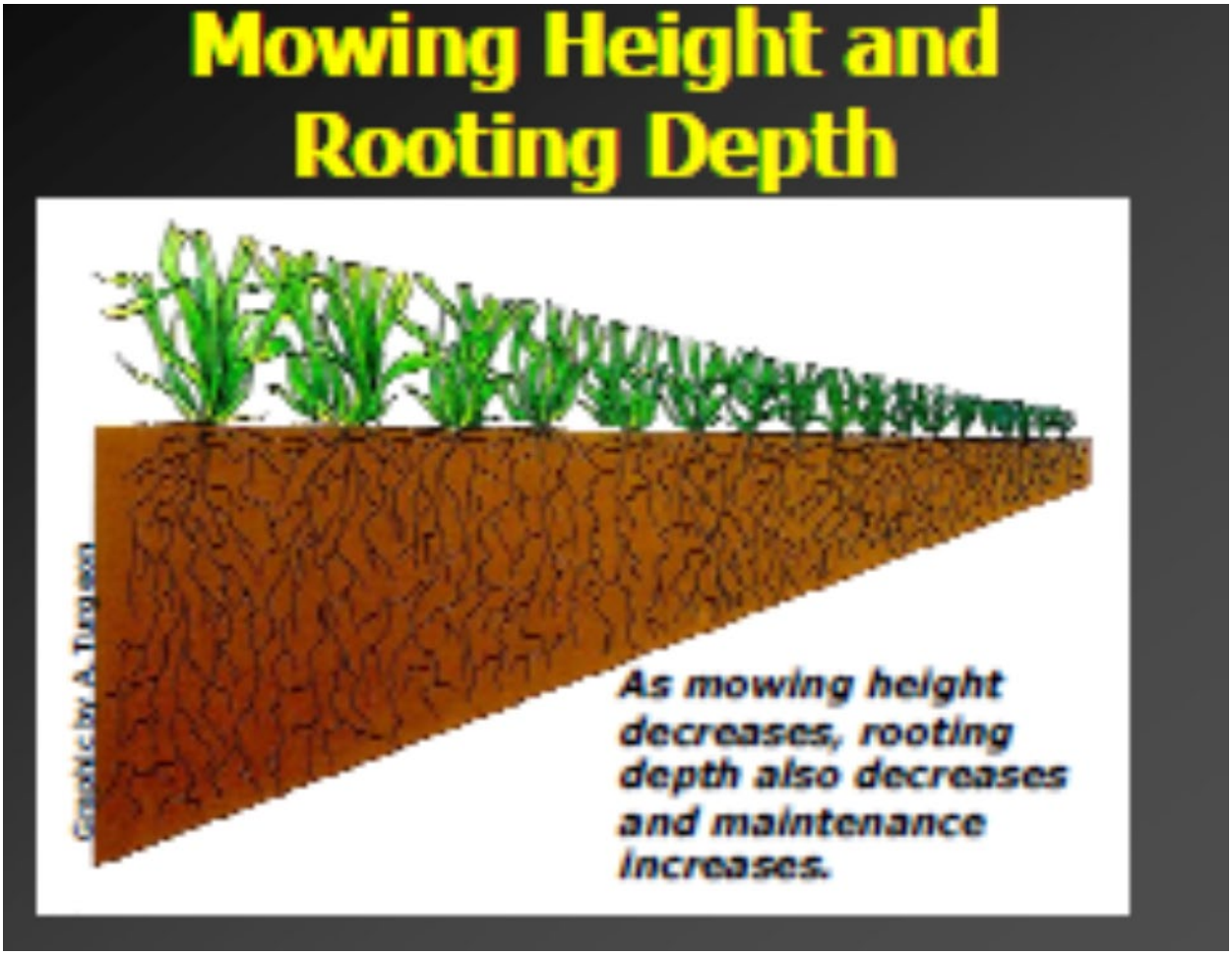
Existing Turf Areas
All existing turfgrass areas will be irrigated with an automatic system.

The overall goal is to begin to shift some cultural practices that will promote a stronger and more vigorous turfgrass that will improve its drought tolerance, resiliency, recuperative potential and ability to outcompete weeds. Sustainability and turf health are the driving forces.

Below is the Capitol Campus Turfgrass Management Plan:

Practice	Rationale	Outcome	Comments
Increase mowing height to 3" -4". Maintain mowing frequency needed to provide a clean, crisp appearance.	Higher mowing height = increased rooting depth (see graphic below this chart). Higher mowing height = increased shading.	Increased drought tolerance. Increased resiliency. Increased recuperative potential Shading out and disadvantaging weed growth.	Will need to work with grounds mechanic to accomplish machine calibration.
Don't mow until grass has grown by 1/3 its intended growing height. Example, when turf reaches 4", mow to 3".	Industry standard for healthy turf.	Less stress on turf.	
Increase soil pH to 6.5 with pelletized dolomitic lime.	Nutrient availability for turfgrass species is best between a soil pH of 6.5-7.0. Weeds are advantaged by a lower pH. Soil test results show most campus turfgrass soil pH to be around 5.5. Soil test results also show a slight magnesium deficiency.	Increased nutrient availability for turfgrass and reduced availability for weeds. Over time, turf will start to dominate over weeds.	Can only apply 25 lbs. lime per 1,000 sq. ft. per application or damage to turfgrass can occur. Will retest soil pH next year and determine if additional treatment is necessary. Dolomitic lime raises soil pH and provides magnesium.
Aerate and top-dress with organic compost to supply half of annual turf nutrient needs. Aerate, top-dress and overseed in late summer.	Improve soil aeration and oxygen levels for plant roots. Improve soil organic matter content, and thus nutrient storage and release.	Improved soil health, deeper roots, increases drought tolerance and recuperative potential.	Use Cascade compost in all turf areas at ¼" topdressing depth. Renovate flag circle and mansion turf each year. Renovate "great lawn" on a 1/3 each year rotating cycle.
Fertilize with a synthetic product having a 4-0-2 NPK ratio in order to provide half of the annual turf nutrient needs. Fertilize in late spring.	Soil test results showed very low levels of nitrogen, high levels of phosphorous and moderate levels of potassium.	Proper nutrient rate and balance will increase vigor of turf, aiding in out competing the weeds.	Clover, in particular, wins in low nitrogen soils due to nitrogen fixing bacteria that live with its roots.
Selectively spray broadleaf weeds in the late summer.	Limit use of synthetic herbicides to where weeds are present.	Increase turf aesthetics and over time limit use of herbicide sprays to once per year or less. Herbicides may be applied more than once a year until weeds are at a manageable level.	Continued use of appropriate cultural practices should decrease the need to use herbicides over time.

Following these practices should result over time in a more vigorous turfgrass that can out compete weeds, show higher resiliency, exhibit greater recuperative potential, and be more drought tolerant. It is unlikely that all the weeds will completely disappear without addressing drainage issues, particularly on west campus.



Tree/Shrub Management Plan

Mulching
All tree rings and shrub beds will be mulched with an organic mulch to a depth of three inches to provide natural weed control, increased moisture retention during the summer and aesthetics. A light topdressing of new mulch each year is usually all that is required to replace mulch that has decomposed in the past year.

Fertilizing
Newly planted trees and shrubs will be provided a slow-release starter fertilizer to aid in plant establishment. Aged compost will also be incorporated into existing soil prior to planting of new shrub beds.

Established trees and shrubs need very little to no additional fertilizers. Needed amounts will be based upon visual observations of nutrient deficiencies and/or soil tests.

Weed Control
A synthetic pre-emergent herbicide will be used right after planting and before mulching to assist in blocking the germination of weed seeds. Thereafter, weed control in tree rings and shrub beds will be achieved by providing a three inch layer of organic mulch, hand-weeding to include the removal of root systems and/or spot applications of a selective, synthetic spray herbicide.

Pest Control
Pests control for trees and shrubs will be accomplished following the DES Integrated Pest Management plan. Insect and disease pests will be managed using a combination of planting genetically resistance cultivars, following sound cultural practices to maintain optimum plant health, physical removal of the pest where practical and spot applications of pesticides when the pest population rises above the tolerance threshold.

Pruning
Tree and shrubs will be pruned to maintain hazard-free conditions first, clear pedestrian and/or vehicular passageway second and for aesthetics third. The DES Tree Management standard operationg procedure will be followed for tree pruning.

The large trees within the Govenor's grounds will be inspected by a certified consulting arborist on a 3-5 year rotating cycle. These were inspected in the 2017-19 biennium.

Routine structural pruning on the west campus hisitoric trees will occur on a rotating basis. Historic trees due to be pruned in the 2019-21 biennium include the Norway maples by Capitol Way, four historic Norway maples are on west campus, two of which are being supported by metal poles and cabling, and are under evaluation by a consulting arborist. A decision will need to be made about keeping or removing them during the 2019-21 biennium. A generalized tree planting plan guided by the Mithun

plan for the west campus area east of Cherry Lane will be presendted to the Capitol Campus Design Advisory Committee for review.

Below is the Capitol Campus Urban Forestry Management Plan that was created in 2015.

Category	Started with Satisfactory Progress	Recommended Next Steps
Tree Management Policies	Not started.	• Develop list of beneficial policies to create
Tree Risk Management	2015 • Tree inventory is continually updated and guides requests for funding to address removal and/or pruning of highest risk trees. • Independent consulting arborists are contracted to assess and make recommendations for high risk trees as needed. • Began development of a tree management SOP for tree removal and pruning. 2019 –Tree Management SOP finalized.	• Inventory and assessment of high risk trees completed quarterly or after storms. • Develop criteria for when and why a tree requires .independent review. • Finalize tree management SOP.
Tree Inventory	2015 • Training on tree inventory software is included in DNR IAA.	• Schedule training for horticulturist and begin using TreeWorks software. • Investigate potential usage of a mobile platform for TreeWorks program.
Tree Protection	2015 • Tree protection section of campus standards was updated. • Active participation in tree protection program for Sid Snyder project. • Tree protection specifications were reviewed for 1063 Building capital project. • Regular participation in tree protection program for 1063 project.	• Continue to review and update tree protection section of campus standards when asked by asset management. • Continue to review tree protection specifications in specific capital projects. • Continue to actively participate in tree protection programs for active campus projects.
Tree Maintenance Best Practices		
• IPM	2015 • Tree pest management included in campus IPM plan. • Regular monitoring of campus trees for pests. • Utilization of Department of Agriculture specialists and/or DNR forest health staff as needed for pest ID and management strategies. • Arrangements are made with contractors for trees requiring specialized pest control measures.	• Continue monitoring. • Review IPM policies at annual IPMP meeting for how/when pesticides are to be used, ie. last resort or using a tiered strategy.

• Drainage	2015 • Participated in west campus master drainage study. • Selected trees appropriate for current site conditions.	• Work with FPS to pursue funding for implementation of west campus master drainage plan.
• Structural Pruning	2015 • Provided training to grounds staff on this topic, with an emphasis on younger trees. • Utilized contractors to perform structural pruning on historic trees with highest need.	• Continue as a training topic for grounds staff. • Develop a structural pruning cycle for young trees.
• Fertilization	2015 • Employed use of compost as a topdressing on selected historic trees.	• Expand use of compost as a method for providing slow-release nutrients and microbes to trees.
Restoration/Natural Areas Maintenance	2015 • Received DNR grant for Puget Soundcorp team to preform urban forest restoration work at Heritage Park, Centennial Park and at the mansion parking lot. 2019 • Received DNR grant for Puget Soundcorp team to perform work on east and west campus.	• Complete annual reports required for 2015 Puget Soundcorp projects. • Investigate other avenues for achieving urban forest restoration work.
Tree Planting and Replacement	2015 • Established common goal with asset management to replace each removed tree with one new tree. • Above goal was met for all but one tree removal project – lack of automatic irrigation precluded planting of new trees. 2019 • Partner with DNR and the National Association of State Foresters to plant 100 trees on campus between September, 2019 and August, 2020. 2021 • 225 new trees planted across campus as part of NASF challenge	• Continue to reference master landscape plans for tree replacements and new plantings. • Replace removed trees with an appropriate species whenever site conditions permit. • Identify new opportunities for adding new trees to campus beyond just replacements. • Submit generalized tree planting plan for west campus area east of Cherry Lane to CCDAC.
Tribute Trees	2015 • Collaborated with cultural resource manager to develop a tribute tree program.	• Continue work on fine-tuning and finalizing the tribute tree program. Obtain executive management approval and post program information to DES web page.
Public Outreach/Education	2015 • Updated campus tree tour brochure. • Conducted west campus botanical tours for the public. • Provided the Governor with a west campus tree tour.	• Finish tree information for web pages that will be accessed from QR codes on west campus tree labels. • Purchase and installed 32 tree labels for west campus using grant funds. • Continue grounds web page postings.

	• Planted three trees to celebrate Arbor Day. • Posted plant features and landscape project features, which included trees on the DES grounds web page. • Received grant to label 32 trees on west campus.	• Continue west campus botanical tours for the public. • Hold at least one public tree planting event.
Interagency & Community Partnerships	2015 • Renewed IAA with DNR for consulting arborist services. • Partnered with DNR Puget Soundcorp program of urban forest restoration work. • Partnered with LSS to update tree tour brochure. • Partnered with WDOT to update native plant convenience contract. • Partnered with Oregon Tilth to provide organic land care training. • Established new relationship with ecoPRO to replace Oregon Tilth that was dissolved. • Collaborated with City of Olympia urban forester on mutual tree projects.	• Continue partnerships with DNR, Puget Soundcorp, ecoPRO, City of Olympia urban forestry. • Seek new partnerships that will be mutually beneficial.
Staff Training	2015 • Provided training on structural pruning of young trees. 2018 • DNR Urban Forester provided girdling root training.	• Identify topics of greatest need and/or interest and continue to provide training on these tree care topics.

Seasonal Color Bed Management Plan

Seasonal color beds will be provided in the following locations:

- West campus at the sundial, flag circle, Winged Victory, Medal of Honor, Tivoli Fountain, Sunken Garden, WWII Memorial, Vietnam War Memorial and the Governor's mansion.
- East campus at the Korean War Memorial
- Parks at the Heritage Park restroom, Sylvester Park planters and Old Capitol George Washington monument bed

The goal is to use a mix of spring-flowering bulbs (planted in the fall), dwarf evergreen perennials (either herbaceous or woody) and summer annuals so that there is year-round visual interest in these beds. Incorporating a minimum of 50 percent perennials will reduce on-going costs for materials and labor to provide this year-round interest.

Annuals and other plants offering winter color and interest will be incorporated into the sundial, flag circle, Medal of Honor and Tivoli Fountain beds.

A new goal for 2019-21 is to elevate the design of the seasonal color beds to include greater contrast in plant forms, colors and textures. Also, to plant more densely to achieve an instant visual effect.

Soil Improvements
Add well-drained soil, high in organic material and nutrients to all beds prior to the planting of new annuals and perennial each season.

Mulching
All seasonal color beds will be mulched with an organic mulch to a depth of three inches for areas planted with perennials and one inch for areas planted with annuals to provide natural weed control, increased moisture retention during the summer and aesthetics. A light topdressing of new mulch each year is usually all that is required to replace mulch that has decomposed in the past year.

Fertilizing
Newly planted annuals and perennials will be provided a slow-release starter fertilizer to aid in plant establishment. Aged compost will also be incorporated into existing soil prior to planting of new plants to improve soil health, aeration and nutrition.

Weed Control
A synthetic pre-emergent herbicide will be used right after planting and before mulching to assist in blocking the germination of weed seeds. Thereafter, weed control seasonal color beds will be achieved by providing a layer of organic mulch, hand-weeding to include the removal of root systems and/or spot applications of a selective, synthetic spray herbicide.

Pest Control
Pests control for seasonal color beds will be accomplished following the DES Integrated Pest Management plan. Insect and disease pests will be managed using a combination of planting genetically resistance cultivars, following sound cultural practices to maintain optimum plant health, physical removal of the pest where practical and spot applications of pesticides when the pest population rises above the tolerance threshold.

Pruning
Annuals and perennials will be dead-headed (removal of spent flowers) as needed to promote continuous blooming throughout the intended season and to provide a pristine asethetic appearance.

Integrated Pest Management Plan

Refer to complete plan on DES web page for current advisory committee membership and pesticide inventory.

Introduction to Integrated Pest Management
State law (RCW 17.15.010) defines integrated pest management as "…a coordinated decision-making and action process that uses the most appropriate pest control methods and strategy in an environmentally and economically sound manner to meet agency programmatic pest management objectives."

The law requires the DES to implement Integrated Pest Management (IPM) practices on the state property it manages.

The five elements of IPM plan include:

1. Preventing pest problems;
2. Monitoring for presence of a pest problem;
3. Establishing tolerable levels based on plant/human health, economic and aesthetic thresholds;
4. Treating pest problems to reduce populations below established tolerable thresholds; and
5. Evaluating the effects and efficacy of pest treatments.

IPM is based on two main principles:

1. Prevention of disease and infestation; and
2. Preference for non-chemical methods for controlling pests. Synthetic chemicals will be used only when non-chemical methods are shown to be ineffective.

Statement of Purpose
The purpose of IPM plan is to direct all DES operations to manage pests, including weeds, on all department managed property, including Capitol Lake, in an environmentally safe manner while also addressing health, safety, economic, legal and aesthetic requirements. The IPM plan provides a common basis for pest and vegetation management with an overall goal of reducing the volume and toxicity of the pesticides and other chemicals used. The IPM plan applies to contracted services, as well as DES operations.

The IPM plan provides a holistic approach to pest management, with short- and long-term strategies that integrate prevention, mitigation, education and direct control techniques. It incorporates feasible and practical recommendations into ongoing practices and adoption of "best practices" where it makes sense. The practices used will reduce sources of food, water and shelter for pests. An effective plan requires identifying and monitoring pest populations, and then selecting the safest, most effective control method.

IPM Guidelines

The following is a list of IPM guidelines used when addressing and controlling pest problems on state property:

- For action to be taken, the pest population must pose a risk to human health, risk of lasting damage to property, or unacceptable aesthetic damage.
- Consider as many alternatives to managing the pests as possible, including the alternative of "no action."
- Determine each pest species' aesthetic, economic and plant and human health damage threshold.
- Take no action against non-pests.
- Know the life cycle and natural enemies of the pest species.
- Use non-chemical methods to prevent or remove pests, such as pheromone traps, electrocuting lights, or snap traps, instead of toxic sprays and powders.
- Modify structures and change housekeeping practices to reduce pest entry and harborage opportunities.
- Replace toxic pesticides with less toxic ones, or use non-chemical techniques.
- Replace volatile sprays with non- or less-volatile baits, traps, etc.
- Use crack and crevice chemical application instead of space sprays.
- Develop strategies to maintain low ambient pest populations.
- Monitor pest levels continuously to catch infestations early.
- Recognize that in some cases there may be no viable alternative to the use of synthetic chemical pesticides.

Landscape Management

The IPM plan considers site-specific characteristics when weighing pest management approaches. The plan includes practices that not only reduce chemical pesticide use, but also reduce energy and water use, minimize air pollution, solid waste, and chemical runoff, including gasoline, oil and antifreeze salts, compared with standard landscape practices. The plan addresses the following landscape management practices:

The planning and design of a landscape, facility or road right-of-way should take into account parameters that will:

- Enhance intended uses of the land and minimize pest problems. Designs must consider such factors as future use of the landscape, soil types, grading, slope, water table, drainage, proximity to sensitive areas, selection of vegetation, and vector control.
- Maximize landscape health by careful selection of vegetation, as well as adopting maintenance practices that keep the area healthy and as pest free as possible. Appropriate selection and retention of plants, irrigation, application of mulch or fertilizer, mowing, and many other practices all serve to maintain healthy landscapes that withstand pest pressures and support natural pest predators. A well-selected and maintained landscape reduces, often dramatically, the need for pest control.
- Ensure proper erosion and sedimentation control for ongoing landscape operations (where applicable) and future construction activity. The plan must address site, soil

and potential construction materials, prevent air pollution from dust or particulate matter and restore eroded areas.

Additionally, ongoing landscape management practices will:

- Keep landscape materials out of the landfill by mulching, composting or other low-impact means.
- Limit synthetic chemical fertilizer use. The use of artificial chemicals can be minimized by planting locally-adapted species. These plants typically have fewer pest problems, needless fertilizer, and have lower overall maintenance costs than non-native species.
- Include “green” landscape management practices when feasible, such as reducing the use of power equipment, improving storm water control, using fertilizer only when needed, composting landscape waste and creating wildlife habitat.
- Remove and avoid planting invasive and noxious plants, protect natural areas, and use plants to reduce heating and cooling needs of buildings and reduce heat-island effect of hard surface areas such as parking lots. Use mulching mowers when site conditions permit to reduce yard waste, fertilizer use and water consumption through build-up and retention of organic matter.
- For aquatic vegetation management see the Capitol Lake Integrated Aquatic Vegetation Management Plan.

Goals

The goals of the IPM plan are to:

1. Protect human health and the surrounding environment by employing a range of preventive strategies and using least-toxic products for pest control and eradication.
2. Inspect and monitor pest populations and locations to enhance control strategies.
3. Minimize environmental impacts by narrowly targeting application areas.
4. Establish clear criteria when pesticide use is necessary.
5. Provide tenants and visitors with advanced notice of IPM activities, especially the use of pesticides and other chemicals.

Scope

The IPM plan applies to building interiors, as well as the grounds managed by DES.

DES manages nearly 40 buildings in Olympia, Lacey and Tumwater, and more than 485 acres of grounds and public park property. This includes the Capitol Campus *(*including the State Capitol Historic District and all of the grounds addressed in the 1928 Olmsted Brothers capitol landscape plan), campuses in Tumwater and Lacey, and buildings and grounds outside of Thurston County.

In addition, DES manages facilities in Pierce, King, Cowlitz and Yakima counties.

The types of properties managed by DES includes planned and native forest, wetlands, riparian habitat, a 260-acre manmade lake, roadways, paths and paved pedestrian walkways in urban, suburban and rural areas.

Definitions

- ***IPM Plan*** - the plan developed and used by DES to implement integrated pest management practices. The plan includes the general approach to manage specific types of sites, pests, implement training requirements, recordkeeping and evaluation practices.

- ***Pest*** - this includes, but is not limited to any insect, plant disease, rodent, nematode, snail, slug, weed and any form of plant or animal life or virus, except virus, bacteria or other microorganisms on or in a living person or other animal or in or on processed food or beverages or pharmaceuticals, which is normally considered to be a pest, or which the director of the Department of Agriculture (WSDA) may declare to be a pest. (RCW 17.15.020)

- ***Pesticide*** - a chemical agent registered as a pesticide by the WSDA, which can be an herbicide, insecticide, fungicide or other chemical that repels, changes the regular growth rate of, kills or otherwise reduces levels of a targeted pest or pests.

- ***Fertilizer*** - any of a large number of natural and synthetic materials, including manure and compounds containing nitrogen, phosphorous, potassium and/or micronutrients, spread on or worked into soil to increase its capacity to support plant growth.

Procedures and Responsibilities

- ***Plan Review and Coordination*** - DES shall establish an IPM Advisory Committee to assist with the development and implementation of these practices.

- ***IPM Plan*** - the plan may contain, but is not limited to general approaches to be used by DES to implement this plan; planning, design and maintenance standards consistent with the IPM approach for landscapes, rights-of-way, and bodies of water; pest tolerances (injury and action levels); typical pest management strategies for common sites or pests; noxious weed control plans; specific pesticide limitations; training plans; and monitoring, recordkeeping and evaluation strategies.

- ***IPM Coordinator*** - this person is responsible for the implementation of the IPM plan to ensure that practices are in compliance with state law, and for coordination of the pest management-related communications between the department, its tenants and the public. The coordinator must:
    1. Oversee a management plan for inspections, identification, monitoring and record retention.
    2. Coordinate IPM Advisory Committee meetings.

3. Coordinate notification of pesticide applications.
4. Maintain and conduct plan evaluation, recordkeeping and retention.
5. Schedule annual training to ensure compliance with RCW Chapter 17.15.

The IPM coordinator designates an employee at each of the department's facilities to serve as the IPM site coordinator.

- ***IPM Plan Advisory Committee*** - maintains the IPM plan and is responsible for annual review and update of the plan. The committee also assists the coordinator in resolving pest-related issues. The committee establishes an authorized products list for pesticides and other chemicals. (Appendix A) The committee, which meets annually, also addresses IPM issues. Minutes are taken of committee meetings and kept on file by the IPM coordinator. The advisory committee includes the IPM coordinator, site coordinators, a representative from DES Buildings & Grounds, and others identified by the IPM coordinator. (Appendix B)

- ***IPM Site Coordinators*** - DES employees, usually property managers, are assigned to handle oversight of the IPM plan for each facility or zone.

Training

DES provides training to its employees on the IPM plan. Training must be provided to designated staff within six months of hiring and then on an annual basis. Training will include the rationale for the IPM plan and specific elements, including use of the pest-sighting log and prohibition on pesticide applications by non-certified individuals.

DES grounds staff are required to be licensed and meet Public Operator's requirements for the application of pesticides. The requirements must include 40 credits of training, and recertification every five years. Department grounds staff must have their license with them when applying pesticides.

Determining Pest Management Strategies

The following general outline will be followed when addressing pest problems:

1. ***Emergency Situations*** - in the event of immediate threat to life, health or safety, IPM site coordinators are authorized to take action in accordance with pre-approved guidelines and follow-up with communication to the IPM coordinator regarding actions taken.

2. ***Inspection*** - site coordinators will direct the inspections performed for all non-emergent reported pest problems prior to any management strategy being employed. Inspections determine the actual presence and identity of the pest species, level of threat to health or property, the source of the problem, and the likelihood of further infestation. This is the point at which thresholds are determined to be exceeded or not. The inspection should also be used to determine the other

factors that will influence control strategies, such as safety concerns or the presence of beneficial organisms.

3. ***Recommendations*** - after the inspection, the site coordinator will provide a management strategy for approval by the IPM coordinator, which may include the recommendation that no action should be taken. Management strategies should consider and include actions to achieve the following recommendations:
   a. Monitor the pest population(s) and other relevant factors.
   b. Accurately identify the pest(s).
   c. Determine injury and action levels that trigger treatments.
   d. Time treatments to the best advantage.
   e. Spot treat for the pest.
   f. Select least disruptive tactics.
   g. Evaluate the effectiveness of treatments to fine-tune future actions.
   h. Educate all involved with the pest problem.

4. ***Evaluation and Approval*** - IPM coordinator recommends and approves appropriate action.

5. ***Documentation*** - records should be kept of all activities, including chemical, physical, cultural and mechanical control methods. These records will be used to evaluate the results and to create a history for anticipating future pest management.

<u>Criteria for Selecting a Pesticide</u>

Nature of the site:
- ☐ Erosion susceptibility and potential movement of soil through runoff.
- ☐ The intended use and function of the landscape.
- ☐ The feasibility of the application method given the area and scope of the problem.
- ☐ The relative importance and public expectation of a site or plantings.
- ☐ Site conditions such as soil type, grade, drainage patterns, and presence of surface water.

Possible health and safety effects:
- ☐ Consider both short and long term toxicological properties and any other related potential health effects of the materials or methods, both to the applicator and the public.
- ☐ Equipment operation safety issues for both the operator and the public.
- ☐ Worker safety and worker injury issues involved with carrying out the method.
- ☐ Possible environmental effects
- ☐ Consider both acute and chronic toxicity and any other related potential effects of the material or method to non-target organisms including mammals, birds, amphibians, fish, invertebrates, pollinators and other organisms.
- ☐ Environmental effects from potential bioaccumulation from materials used.
- ☐ Potential impacts to non-target plants, forage, and nesting habitat, from materials or methods.

- ☐ Potential impacts to federally listed threatened or endangered species.
- ☐ Possible introduction or establishment of invasive plants.
- ☐ Nesting birds: For natural area invasive plant removal, the presence of nesting birds in area to be treated.
- ☐ Pollinator protection:

Costs:
Both short and long term costs as they relate to:
- ☐ Costs of the material or method.
- ☐ Application and labor costs.
- ☐ Length and quality of pest control.
- ☐ Feasibility of using a particular method or product.

Characteristics of the product:
- ☐ Target pests and target sites of the product being used.
- ☐ Possible residual effect, decomposition pathways, rates, and breakdown products.
- ☐ Odor
- ☐ Volatility and flammability.
- ☐ Product formulation and package size.
- ☐ Leachability, solubility, and surface and soil bonding characteristics of the product.
- ☐ Ease of mixing.
- ☐ Ease of cleaning equipment after use.
- ☐ Positive and negative synergistic effects of pesticide combinations.
- ☐ Presence of “inert” constituents of the product formulation and their potential effects.

Other special considerations:
- ☐ Availability of product
- ☐ Application equipment availability.
- ☐ Method of delivery
- ☐ Current and anticipated weather conditions.
- ☐ Previous pesticide applications to the site and the interval between treatments.
- ☐ Possible development of pest resistance to a particular management method or material.
- ☐ Storage considerations such as space and compatibility of materials

Source: Portland Parks and Recreation and DES Grounds Staff

<u>Posting and Notification of Pesticide Applications</u>
Washington State Department of Agriculture (WSDA) annually sends a list of pesticide-sensitive individuals to all certified applicators. It is the responsibility of the applicator to review this list and send appropriate notification per the WSDA notification guidelines.

The DES pesticide applicator should inform the DES Grounds lead, Grounds manager, Grounds property manager and any affected property managers of any upcoming pesticide applications, including the pesticide being applied, method of application and location of application.

The DES Grounds property manager and affected property managers should be informed of any upcoming pesticide applications being made by a contracted vendor.

Recordkeeping

DES will maintain records of all pest control treatments for at least three years. Information about pest management activities will be made available to the public.

DES will use a standardized form for all pest control activities, to help with recordkeeping.

Pest management records will include:

1. Target pest.
2. Prevention and other non-chemical methods of control.
3. Type and quantity of pesticide used, and the Safety Data Sheets for each product.
4. Location of the pesticide application.
5. Name of the pesticide applicator.
6. Application equipment used.
7. Summary of results.
8. Disposal and decontamination records.

Landscape Management Records will include:

- Type and quantity of fertilizer or chemical applied and the Material Safety Data Sheets for each.
- Location of application.
- Date of application.
- Chemicals used for noxious weed control.
- Name of applicator.
- Application equipment used.
- Disposal and decontamination records.
- Summary of results.

Snow/Ice Removal Plan

DES maintains a comprehensive snow and ice removal plan that is available from the DES Facilities share drive. Below is purpose statement from this plan.

The Department of Enterprise Services (DES), Buildings and Grounds (B&G) Snow and Ice Removal Plan is designed to give an overview of the operating procedures to be followed during snow or ice conditions. The Plan does not include all situations and in some cases DES may alter procedures to ensure safe operations of the Capitol Campus (Olympia) and the Labor and Industries Building in Tumwater.

There are several goals for the Snow and Ice Removal Plan:

- Make every effort to keep the Capitol Campus and surrounding locations safe during inclement weather conditions.
- Provide accessible guidelines and procedures for internal and external customers.
- Provide reasonable driving conditions during adverse inclement weather conditions.
- Reduce interruption of state business on and off of the Capitol Campus.
- Maintain clear and safe access to state buildings.
- Winterize equipment and water lines to avoid damage and costly repairs.

The purpose of the Plan is to increase public safety from snow and ice challenges during inclement weather conditions. During inclement weather, DES will make every effort to maintain traffic flow on and off Capitol Campus as near to normal driving conditions as possible.

The Plan is established for snow and ice removal procedures and is designed to maintain operational capabilities and provide safety for public and state employees during winter weather conditions. The Plan will be executed whenever the potential or accumulation of snow or ice challenges the capabilities of the safety of the public or state employees doing business on or off the Capitol Campus.

A new component of this plan is utilization of an Incident Command Post when conditions warrant.

Landscape Improvement Plan

<u>West Campus</u>
Following are the 2023-25 landscape improvement plans for West Campus:

- Complete the beautification grant landscape bed behind the Tivoli Fountain pump house
- Design and install the last piece of the Olmsted woodland edge just west of the WWII Memorial

- Design and reinstall a native conifer planting just west of the mansion parking lot to assist with hillside stabilization in this area
- Design and install the E. WA cultural landscape feature per HB 1700
- Renovate the original landscape bed due east of the Legislative Building to continue the original Olmsted Brothers' intent and add a sensory garden in the front of the bed
- Renovate and convert the turfgrass in the flag circle to a perennial ryegrass blend to match the turf in the sunken garden
- Finish planting perennials in the sunken garden
- Replace trees and shrubs that have failed
- Add new trees missing from the desired genera list
- Continue to assess, troubleshoot and upgrade the performance of the irrigation system

East Campus
Following are the 2023-25 landscape improvement plans for East Campus:

- Design and install a new planting at the OB2 garage service level entrance
- Renovate the large, raised planter beds between the Korean Way Memorial and the DOT headquarters building
- Reestablish the landscape planting just north of the 14th Ave.tunnel exit going west
- Replace trees and shrubs that have failed
- Add new trees missing from the desired genera list
- Continue to assess, troubleshoot and upgrade the performance of the irrigation system

Parks
Following are the 2023-25 landscape improvement plans for Parks:

- Annual turf renovation at Heritage Park after Lakefair. Accomplished using aeration, compost topdressing and synthetic fertilizer applications.
- Turf renovation at Marathon Park, Sylvester Park and Old Capitol on a rotating cycle.
- Replace trees and shrubs that have failed
- Add new trees missing from the desired genera list
- Continue to assess, troubleshoot and upgrade the performance of the irrigation system

Quality Assurance Plan

Quality assurance for the Capitol Campus grounds is the responsibility of every Grounds team member, the Grounds Shop Supervisor the Buildings and Grounds Maintenance and Repair Manager and the Campus Horticulturist.

Work is checked on a daily basis by the Grounds Shop Supervisor to ensure campus standards of care and maintenance are being followed.

The campus Horticulturist walks the grounds every week and submits photos with associated narrative highlighting gaps in the maintenance standards and shares this information with the Grounds Shop Supervisor for mitigation.

Annual Grounds Maintenance Calendar

Following is a high level annual grounds work plan by calendar month:

July
Meet with asset managers to prioritize tree work
Remove lower branches that are impacting pedestrians or vehicles
Review mulch rings and mulch as needed
Review summer pruning needs & prune as required
Review mulch thickness and mulch as needed
Maintain beds weed free
Raise mowing height to 3.—3.5 inches for summer drought tolerance and shading weeds
Monitor irrigation for dry spots
Edge to maintain no more than 1 inch of growth over sidewalk
Pick up debris on turf as needed
Maintain beds weed free
Deadhead as required
Edge as required
Monitor irrigation and adjust as required
Add fertilizer as needed
Weeding/string trimming Heritage Park switchback trail (all teams)
Keep all walkways and drives clear of debris
Lake Fair
August
Review mulch rings and mulch as needed
Review summer pruning needs & prune as required
Maintain beds weed free
Monitor irrigation for dry spots
Monitor irrigation for dry spots
Edge to maintain no more than 1inch of growth over sidewalk
Aerate, topdress, fertilize and lime if needed
Pick up debris on turf as needed
Maintain beds weed free
Deadhead as required
Edge as required
Monitor irrigation and adjust as required
Add fertilizer as needed
Formulate fall bulb plan
Keep all walkways and drives clear of debris
September
Schedule cherry tortrix spay if needed
Maintain beds weed free
Monitor irrigation for dry spots

Monitor irrigation for dry spots
Edge to maintain no more than 1 inch of growth over sidewalk
Pick up debris on turf as needed
Maintain beds weed free
Deadhead as required
Register for winter pesticide recertification courses
Keep all walkways and drives clear of debris
October
Begin leaf management
Maintain beds weed free
Pick up debris on turf as needed
Remove annuals as they fade in preparation for bulb planting
Review snow/ice removal plan
Keep all walkways and drives clear of debris
November
Continue leaf management
Maintain beds weed free
Do final mowing for the year
Pick up debris on turf as needed
Remove annuals as they fade in preparation for bulb planting
Plant bulbs
Review snow/ice removal plan
Review Christmas tree plan for Sylvester Park & Legislative Building
Begin planning for next year's annuals/perennial – overall costs
Keep all walkways and drives clear of debris
December
Continue leaf management
Maintain beds weed free
Pick up debris on turf as needed
Finish planting any remaining bulbs
Install Christmas tree in Legislative Building
Keep all walkways and drives clear of debris
Help with Holiday party
Schedule flagging recertification in February (every 3 years)
January
Gather fallen branches from wind storms
Finish leaf management
Aphid treatment on L&I tulip trees & oaks
Maintain beds weed free
Pick up debris on turf as needed
May need occasional mowing depending upon weather
Develop cost estimate for new annuals/perennials
Take down Christmas trees
Keep all walkways and drives clear of debris
Continue picking up fall leaves that have been stockpiled in beds
February
Gather fallen branches from wind storms
Dutch elm disease on west campus and Sylvester Park
Develop Arbor Day tree planting plan
Maintain beds weed free
Apply new mulch as needed.
Pick up debris on turf as needed
May need occasional mowing depending upon weather
Conduct soil texts

Finalize any turfgrass experiments for the year
Maintain beds weed free
Keep all walkways and drives clear of debris
March
Gather fallen branches from wind storms
Maintain beds weed free
All crews – work on east campus tunnel beds, Capitol Way beds and Jefferson beds
Pick up debris on turf as needed
May need occasional mowing depending upon weather
Apply lime at HP if soil test calls for treatment
Maintain beds weed free
Keep all walkways and drives clear of debris
April
Gather fallen branches from wind storms
Celebrate Arbor Day
Maintain beds weed free
Prepare for Law Enforcement Memorial ceremony – 1st week of May
Pick up debris on turf as needed
Maintain beds weed free
Finalize perennial/ annual plant order
Keep all walkways and drives clear of debris
May
Gather fallen branches from wind storms
Maintain beds weed free
Pick up debris on turf as needed
Implement seasonal mowing schedule, ie., raise mowing heights: East and parks = 3", West = 2.5"
Maintain beds weed free
Plant new perennials/annuals
Keep all walkways and drives clear of debris
Activation and repair of irrigation systems
Prepare memorials for Memorial Day weekend
Prepare for State Employee Appreciation Day on east campus
June
Detail tree rings to remove weeds, fallen branches, etc.
Spot check for individualized watering needs
Maintain beds weed free
All staff clean-up of Jefferson, tunnel and Capital Blvd. medians
Spot check for individualized watering needs
Pick up debris on turf as needed
Maintain beds weed free
Keep all walkways and drives clear of debris
Lake Fair preparations
Monitor all areas for dry spots
Irrigation repairs as needed
Develop and implement summer drought plan as required

Volunteers

Three volunteer groups will provide services on west campus in 2021-23.

1) *Evergreen Dahlia Association* – plant and care for dahlias in the sunken garden.
2) *American Legion* – supply American flags for agreed upon holidays
3) *Olympia Kiwanis* – grow organic vegetable in four plots on east campus plaza

There is a standard memorandum of understanding between each volunteer organization and DES.