Integrated Pest Management Plan

Springwood Garden

25-0980 (City of Olympia)

0968007300

October 20, 2025

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INTRODUCTION

Project Description

The Springwood Garden project proposes subdividing 1609 Springwood Avenue in Olympia, Parcel 0968007300, into 37 single-family residential lots, with associated roadways, utilities, and tree preservation tracts. A wetland buffer extends into the site in the southwest corner and will be placed in a protected tract.

The site is generally flat, with a total topographic relief across the site of approximately 16 feet. Soils consist of Yelm fine sandy loam and glacial outwash. In its existing condition, stormwater runoff from the site generally sheet flows from north to south and east to west, and discharges to the onsite wetland basin located in the southwest corner of the site. When developed, onsite stormwater is proposed to be collected by catch basins and conveyed via underground pipes to a combined detention/wet pond facility and then discharged to its natural location.

The project proposes a Soils and Tree Projection area in Tract D, which is approximately 0.47 acre in size. Existing trees in the tract will remain, and additional plantings of Washington hawthorns and Douglas firs are proposed. Streetscapes will include planting of trees, one tree per every 40 feet, with hydroseeded planter strips. The Springwood Garden Homeowners Association will be responsible for the maintenance of of the landscaping, and each individual homeowner will be responsible for the maintenance of landscaping on their individual lots.

Mulches must include organic materials, such as wood chips and shredded bark. Nonporous materials, such as plastic sheeting, shall not be used in any area of the landscape because of down-slope erosion and potential soil contamination from herbicide washing.

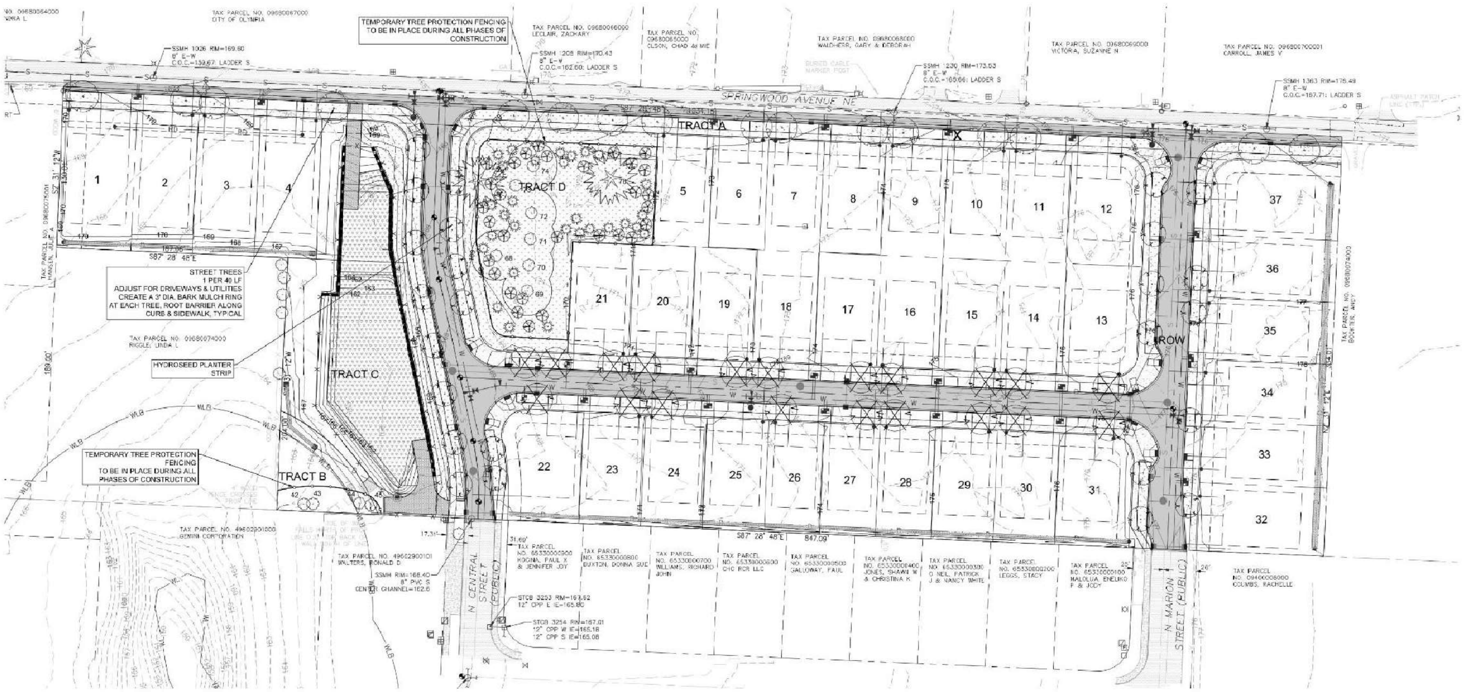
INTRODUCTION

Responsible Parties

Initial:
During installation of the landscaping, the general contractor will be responsible for implementation of the IPM Plan.

During Building Construction:
During construction of the individual homes, the Developer/Builder will be responsible for the implementation of the IPM Plan. Upon completion of each individual home, the homeowner will be responsible for the implementation of the IPM Plan for their lot.

Long Term:
The Homeowners Association will be ultimately responsible for the implementation of the IPM Plan once the plat is placed under their control.



LANDSCAPE PLAN

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

LANDSCAPE SHEET INDEX
L1 LANDSCAPE PLAN
L2 DETAILS AND NOTES

PLANT SCHEDULE					
TREES	QTY	BOTANICAL / COMMON NAME	SIZE AT TIME OF PLANTING	NATIVE (N) NON-NATIVE (NN) DROUGHT TOLERANT (DT)	LOCATION
	20	Ginko biloba 'Princeton Sentry' Princeton Sentry Ginko	2" Cal. Min. Well Formed.	NN, DT	INTERNAL
	25	Acer griseum Paperbark Maple	2" Cal. Min. Well Formed.	NN, DT	INTERNAL
	19	Carpinus betulus 'Fastigiata' Pyramidal European Hornbeam	2" Cal. Min. Well Formed.	NN,DT	ROW
TOTAL	64				
REPLACEMENT TREES					
	30	Crataegus douglasii Washington Hawthorne	1" Cal. Min. Well Formed	N, DT	TRACT B & D SVPA
	30	Pseudotsuga menziesii Douglas Fir	3' Ht. Min. Full/Compact	N, DT	TRACT B & D SVPA
TOTAL REPLACEMENT TREES	60				
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	SIZE		
		Hydroseed for Typical Lawn Areas (27,241 SF) SUNMARK NATIVE ECOTURF- Sunmark Seeds www.sunmarkseeds.com Botanical Name / Common Name / % by Weight Festuca rubra / Native Red Fescue / 45% Bouteloua gracilis / Blue Grama / 25% Buchloe dactyloides / Buffalograss / 20% Koeleria macrantha / Prairie Junegrass / 7% Trifolium fragiferum / Strawberry Clover / 3% 1 lbs. per 1,000 SF or 43.67 lbs per acre		N, DT	INTERNAL
		Nuphar polysepalum - Spatterdock (in 3 to 7' of water) Nymphaea odorata - White Water Lily (up to 6' of water) per City of Olympia - Inundated water ponds			

PER ARBORISTS REPORT PAGE 11
V. Tree Density Calculations
The City of Olympia requires a minimum of 30 tree units per buildable acre. All trees within the SVPA and Tract B will be retained. The following summary presents the tree density calculations.

Minimum Tree Density Required
Total Acreage = 7.06-acres
Buildable Area (7.06-acres minus 1.35-acre ROW & .10-acre wetland buffer) =5.61-acres
Required Units (30 units/acre x 5.61-ac buildable area) = 168 Units
Required Minimum Units to be Retained within SVPA = 126 Units
Units to be Retained within SVPA = 67 Units
Units to be Retained outside SVPA = 17 Units
Total Units to be Retained = 84 Units
Overall Shortfall = 84 Units
Shortfall within SVPA = 59 Units

This project does not meet the minimum tree density as specified by the City of Olympia. Replanting will be required to make up the overall shortfall and that within the SVPA

IN THE OLYMPIA URBAN FORESTRY MANUAL ON PAGE 6-1 TABLE B MINIMUM SIZE REQUIREMENTS FOR REPLACEMENT TREES IN THE SVPA ARE AS FOLLOWS:
DECIDUOUS - 1" CALIPER MIN. - 1 TREE UNIT VALUE
CONIFER - 3' TALL MIN. - 1 TREE UNIT VALUE
REQUIRED TREE UNITS TO BE REPLANTED
60 REPLACEMENT TREES


PRINCETON SENTRY GINKO


PAPER BARK MAPLE


PYRAMIDAL EUROPEAN HORNBEAM


WASHINGTON HAWTHORNE


DOUGLAS FIR

Know what's **below.** **Call** before you dig.

Nature By Design Landscape Architecture
253.460.6067

SPRINGWOOD PLAT
1609 SPRINGWOOD
OLYMPIA, WA

GARRETTE CUSTOM HOMES - PUGET SOUND
4802 TACOMA MALL BLVD
TACOMA, WA

REVISIONS:

DRAWING ISSUED FOR:
AGENCY REVIEW
DATE: NOVEMBER 24, 2025

PROJECT NO:	25022
FILE NAME:	25022LSF
DRAWN BY:	KLO
CHECKED BY:	KLO
X-REFS:	CIVIL
PLOT SCALE:	1:1
DRAWING SCALES:	1:30

DRAWING CONTENTS:
LANDSCAPE PLAN

DRAWING NO.:
L1
1 OF 2

ORIG. SHEET SIZE 22X34

INTRODUCTION

Background Context

Importance of an IPM Plan:
An IPM Plan is crucial for protecting nearby natural resources by minimizing the use of harmful chemicals and promoting sustainable practices. It focuses on prevention, monitoring, and control strategies that reduce the environmental impact, helping to preserve water quality, soil health, and biodiversity. By implementing IPM, the risk of contamination to local ecosystems and the potential harm to wildlife is significantly reduced.

Existing and Proposed Site Features

1) Natural

- Ground Water
  Most of Thurston County is classified as aquifer sensitive area. This means most of the potable water consumed in this area comes from this aquifer.
  Low Impact Development (LID) measures have been proposed to introduce water back into the aquifer where possible through the use of amended soils, perforated pipes, and dispersion to name a few.

- Wetlands
  There is one offsite wetland with its buffer extending onto the subject property in the southwest corner of the site. No Construction activities are proposed within the wetland buffer. Retention of native vegetation is proposed within the associated buffer.

Impact of Landscaping and Pest Control Activities:
Improper landscaping and pest control activities, such as the excessive use of chemical pesticides and fertilizers, can lead to runoff that contaminates nearby water bodies, harming aquatic life and disrupting ecosystems. Additionally, the removal of native vegetation in favor of non-native species can reduce habitat availability for local wildlife and increase the vulnerability of natural areas to invasive species. Effective management practices are necessary to mitigate these impacts and protect the integrity of nearby natural resources.

Keep the paragraphs below as part of the IPMP for any project within a group A wellhead protection area.

For any project within a Group A wellhead protection area, it is crucial to understand that the local aquifer serves as a vital source of drinking water for the surrounding community. Wellhead protection areas are des-ignated zones where contaminants can travel through the surface and subsurface towards a well or well field within one, five, or ten years. These areas are classified as critical aquifer recharge areas and are subject to stringent protection requirements as outlined in Title 24 Critical Areas.

Improper pest or vegetation management in these zones can introduce harmful chemicals and pollutants into the groundwater, posing significant risks to the drinking water supply. This plan addresses these vulner-abilities by implementing best practices in integrated pest management (IPM)to minimize the use of hazard-ous substances and ensure that any treatments used are environmentally safe.

INTRODUCTION

Background continued

Local resources where homeowners can find assistance in learning how to prevent or control pest problems are listed below. The IPM Plan will be recorded and will be noted in the title report when a homeowner purchases a home in the community. The IPM Plan will also be incorporated into the community's CCRs, which will be recorded with the Final Plat. Any revisions will be distributed via mail and the IPM Plan will be discussed at the annual Homeowners Association meeting.

IPM for Homeowners
Subdivisions must provide educational materials pertaining to IPM to each initial homeowner per TC Critical Area Ordinance 24.55.070 - AND - Subdivisions must record the IPM Plan and reference it on the plat map. Add IPM Plan to property title documents.

Here are some sources:
https://www.thurstoncountywa.gov/departments/public-health-and-social-services/environmental-health/pesticides-integrated-pest-management-ipm

Common Sense Gardening Guides:
https://www.thurstoncountywa.gov/departments/public-health-and-social-services/community-wellness/healthy-home-yard/gardening

INTEGRATED PEST MANAGEMENT PRINCIPLES

Integrated Pest Management Principals are the fundamental concepts or guidelines that underpin the IPM approach, focusing on overall strategies and goals for managing pests sustainably and effectively.

Planning and Prevention

Proper site construction and soil preparation by the developer prior to landscaping will help prevent future pest issues. The landscape design includes the proper choice of plants which are adapted for the site conditions, proper planting techniques, and benefits of the use of mulch and weed barriers in landscape beds.

Things to consider for planning and prevention:
The landscape plans developed by Nature by Design in association with the project to support this, and include native plantings that support the IPM Plan.

The long-term maintenance for landscaped areas will be the responsibility of the owner/operator, the Homeowners Association's designated contractor for periodic maintenance, and the individual lot owners/tenants. All landscape installations should be implemented by experienced, professional contractors with best industry practices concurrent with the construction of the site improvements.

Management activities will change over time, as landscape areas mature. Landscape maintenance activities will include culture and pruning, removal/replacement of plants, fertilizing for turf areas, and operation of irrigation systems. Key to successful establishment and long-term performance of the landscaped areas is the monitoring and identification of disease and pest problems and proper management thereof.

- Stockpiling topsoil onsite then mixing in 4- to 6-inch STA certified compost to reincorporate into landscaped area.

After landscape is installed, the beds will be covered with 2 to 4 inches of compost. It is suggested that the beds receive additional compost or bark annually to retain soil moisture, provide nutrients, and help prevent weed growth.

Maintenance, inspection, and records keeping will be provided by the designated landscape maintenance company on a monthly basis.

INTEGRATED PEST MANAGEMENT PRINCIPLES

Landscape, Pest Control, Maintenance & Management

Landscaping includes all forms of contamination. The method of constructing and maintaining lawns and gardens can create problems in the entire ecosystem.

Surveying:
Homeowners should establish a schedule for systematically surveying their landscape for pests and damage symptoms. This is an important activity and should be performed on a regular basis. By performing regular surveys, potential pest problems are controlled much easier than if the given pest has time to propagate and spread to other locations. This inspection is equally important within the common areas of Springwood Garden, since pest populations can spread long distances, and by a variety of means. Individual homeowners within Springwood Garden should come to a consensus on the responsibility of the common areas. Often, it is in the best interest of the Homeowner's Association to hire a professional to regularly inspect common areas. Surveys should be more frequent in Spring and Summer months, which are the principal times for pest activity.

Inspection / Monitoring

Regular landscape inspections are essential for maintaining plant health and preventing costly damage. Here's why they're important:

- Early Detection: Catching pests and diseases early minimizes damage and reduces the need for chemical treatments and managed through mechanical or cultural methods.
- Protects Plant Health: Prevents the spread of disease and supports healthy plant growth and enhances aesthetics and property value.
- Cost-Effective: Early intervention saves money on treatments and plant replacements.
- Environmental Protection: Minimizes pesticide use and promotes a healthy ecosystem.
- Maintains Aesthetics: Keeps landscapes looking vibrant and well-maintained.

Regular inspections ensure a healthy, beautiful, and sustainable landscape while also saving costs and protecting the environment.

INTEGRATED PEST MANAGEMENT PRINCIPLES

Establish Control Methods

Residential Development Construction

Adequate site preparation is essential for the successful implementation of the IPMP. Upper layers of topsoil should be removed from foundation and road areas, and stockpiled. This topsoil may then be reapplied to homesites and common areas as needed. In areas with little or no topsoil, soil amendments such as compost or well-aged manure should be added in a layer between 6 and 12 inches thick. This organic material should then be tilled into the soil thoroughly. The added organic material will serve to enrich the nutrient value of the soil, retain moisture, and filter impurities.

In areas with existing noxious weed species such as Scots' broom and Himalayan blackberry, plants will be removed to an off-site dump. These plants will be mechanically pulled prior to excavation to remove as much of the below ground root system as possible. Contractors conducting site work should be mindful of cleaning their equipment prior to completing their work. Plant matter from noxious weeds can be spread from site to site on this manner.

Appropriate Control Actions

Weed Control

Mechanical and cultural control methods are the preferred means of weed control within Springwood Garden. These methods include combinations hand pulling, tilling, installation of weed barriers, and application of organic mulch. These control methods are preferred to using herbicides, since herbicides may harm desirable plants and contaminate groundwater supplies. The wetland buffer should be monitored for in the invasion of noxious vegetation. If noxious weeds are found, they should be hand-pulled or cut to prevent the loss of desired species from competition. Irrigation and fertilization techniques confined to the needs of desirable plants help keep weed growth from becoming too invasive. Chemical weed control is only appropriate for homesites, and only in situations where mechanical and cultural means of control have been proven ineffective. If chemical weed control becomes appropriate, the following guidelines should be followed:

- Individual homesites should use Roundup brand herbicide. This product is one of few herbicides without lasting residues.
- Applications should be timed to provide for best results. Always follow product label directions.
- Applications should be made during windless periods at least 4 hours before probable rainfall, and early in the morning before the day heats up.
- Do not use "weed and feed" type fertilizers, which contain pre-emergent herbicides on lawn areas.

Use of any other herbicides should be recommended and applied by a licensed professional, especially in common areas.

The individual landowners are responsible for managing the landscaping items within their property.

INTEGRATED PEST MANAGEMENT PRINCIPLES

Evaluate Results

Assess the results of control measures soon after implementation. Evaluate efficacy of the least impactive control measures to see if thresholds are achieved. If not, an increase in intensity or type of control measure (biological or chemical measures) can be used. An IPM program is not static and must be adjusted based on the efficacy of the least-impactive control measures needed to reduce problems below the set thresholds. Use post-treatment evaluation to adjust Preventative and Inspection/Monitoring measures. See specific Best Management Practices (BMPs) below for recommended IPM responses to various landscape related issues.

BEST MANAGEMENT PRACTICES

Best Management Practices are specific, actionable techniques and procedures designed to implement the principles of IPM. BMPs are practical applications that ensure the principles are put into practice effectively.

General

BMPs are simple guidelines to help reduce environmental impacts and make projects run more smoothly. By following BMPs, projects can protect natural resources, cut down on pollution, and avoid harm to the environment. These practices also help meet regulations, which can prevent legal issues and fines. Using BMPs improves project success, leading to better results and long-lasting benefits. In addition, they show the community that the project is being managed responsibly and with care. In short, BMPs help achieve project goals while keeping the environment and public health safe.

Refer to the Pesticides & Integrated Pest Management (IPM) | Thurston County (thurstoncountywa.gov updated April 2024) for a summary of key Integrated Pest Management elements.

For more help with BMPs see https://solvepestproblems.oregonstate.edu/

Recommend enlisting a licensed pesticide applicator.

Recommend using an EcoPro Certified professional.

BEST MANAGEMENT PRACTICES

Weed Control

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Disease Control

To prevent plant and turf diseases, it is essential to implement Best Management Practices (BMPS) that focus on maintaining healthy plant conditions and managing environmental factors.

Key BMPs:
Water Management: Proper irrigation practices can help prevent water stress and related diseases. Avoid overwatering and ensure that water is applied effectively to the plants.
Soil Health: Maintaining healthy soil conditions is crucial, This includes proper soil aeration, nutrient management, and avoiding excessive use of nitrogen fertilizers,
Pest Control: Identifying and controlling pests can prevent damage to plants and turf. Use appropriate pest control methods and consider natural or chemical options.
Disease Management: Implementing disease-resistant varieties and using preventative measures can help reduce the risk of disease.
Nutrient Management: Optima; nutrient levels are essential for plant health. Avoid over-fertilization and ensure that nutrients are applied correctly to prevent nutrient leaching.

See and refer to www.growsmartgrowsafe.org

BEST MANAGEMENT PRACTICES

Insect Control

Regular monitoring: Continuously inspect for signs of pest activity and monitor environmental conditions to identify potential pest problems.

Monitor and Scout: Regularly monitor pest populations and identify them accurately to make informed control decisions.

Remove habitats: Eliminate potential breeding sites for pests by removing standing water and other mosquito habitats.

Use Structural barriers: Install window and door screens, and cover gaps in wall and windows to prevent pests from entering.

Refer to www.growsmartgrowsafe.org
For non-chemical control of insects, see beneficial insects and strategies to help them thrive in your landscape.

Fertilizer

Thurston Conservation District offers soil testing services and can recommend fertilizing rates and timing.

Washington State does not allow phosphorous in lawn fertilizer due to water pollution concerns. RCW 15.54.500 WAC

Only slow release fertilizers shall be applied for the life of the development at a maximum amount of 4 lbs of nitrate as nitrogen annually and no more than 1 lb. per application for every 1,000 square feet of turf grass. Only fertilizer formulas with a minimum of 50% water insoluble form of nitrogen are permitted for use. Approved water insoluble forms of nitrogen include sulfur and/or polymer coated fertilizers, Isobutylidene Diurea (IBDU), Methylene Urea and Ureaform, and organic fertilizers registered with Washington Department of Agriculture." (City of Olympia Critical Areas Ordinance Chapter 18.32.225).

Note prohibition of fertilizers containing phosphorous on turf due to water pollution concerns (RCW 15.54.500). Skip November fertilizer applications if mulch mowing is practiced.

BEST MANAGEMENT PRACTICES

Irrigation

Lawn irrigation systems should be designed and managed to supply no more than a total of 1 inch of water per week (including and adjusted for rain). Use an irrigation system that is designed to optimize water use, ensuring that it meets the specific needs of the landscaping. This includes selecting appropriate technologies and layouts that minimize water loss.

An evaluation of the soil type should determine the frequency the lawn should be irrigated (two to three times a week for sandy soil or once a week for soil with more clay). After plants are established, readjust the irrigation system watering frequency to account for deeper root systems. Adjust watering for precipitation.

Community Owned Areas

Community landscaped areas within the project, including the storm pond facility and the tree retention area (Tract D), will be maintained by the Homeowners Association. Street trees along the frontage of the storm pond facility and Tract D will be pruned per ANSI 300 standards to maintain the natural form of the tree, encourage vigorous spread and height, and avoid weakening the tree to create a hazard. Plant material will be drought tolerant or native species.

Maintaining the stormwater facilities should be completed by professionals who are knowledgeable in the types of facilities and how they work. Excessive growth, silted in bottoms, and clogs should be maintained on a regular basis. A professional landscaper hired by the Homeowners Association will be hired to maintain the the facility.

BEST MANAGEMENT PRACTICES

Pesticide and Chemical Management

When selecting chemical controls prioritize those with low mobility and low water pollution hazard. Pay particular attention to products that are low hazard to humans, aquatic life, and water pollution. When use of a chemical is the best or only option, homeowners and tenants shall follow the basic guidelines below. Maintenance Contractors shall be licensed commercial applicators and shall always follow the Pesticide Label.

Once the pest is identified, the Homeowners Association and the individual homeowners should refer to recommended pesticide applicators listed on the the Grow Safe Grow Smart website (www.growsafegrowsmart.org). The website will assist to select pesticides that are most appropriate to what pest you are trying to control, and presents the least hazards to people and the environment.

Store pesticides in a secure, well-ventilated area away from living spaces, food and water sources to prevent accidental exposure and contamination. Keep pesticides in their original containers with labels intact, and ensure that containers are tightly closed when not in use. Follow specific temperature and humidity guidelines for storage to maintain the efficacy of the pesticides.

Apply pesticides during calm weather conditions to minimize drift and ensure that the project reaches the target area effectively. Monitor weather conditions and avoid applying pesticides before heavy rain, which can wash chemicals away and lead to runoff.

For free disposal of unused chemicals, consider the use of HazoHouse (Thurston County's household hazardous waste facility), which is free to Thurston County residents. The facility is located at 2420 Hogum Bay Road NE in Lacey.

See Thurston County Article VI Nonpoint Source Pollution of the Sanitary Code for information about controlling pollutants.

Pest Management Actions

This IPM Plan combines various methods to manage pests effectively while minimizing risks to people and the environment. It involves monitoring, identifying pests, and using appropriate control methods.

Natural Controls: Utilizing natural predators, resistant plant varieties and cultural practices to prevent pest infestations.

Cultural Controls: Implementing practices such as spacing plans properly and using companion planting to reduce pest pressure.

Monitoring and Identification: Regularly assessing pest populations and their impact to make informed decisions about pest control actions.

Consider using ecoPro certified landscaping professionals for sustainable practices.

RELATED DOCUMENTS

Resource Listings

Contact info and resources for pest management

If you suspect a problem exists, please contact your local jurisdiction at one of the numbers below and ask for Technical Assistance.

CONTACT NUMBERS

DEVELOPER OWNER/OPERATOR INFORMATION

Garrette Homes, Inc.
4802 Tacoma Mall Boulevard
Tacoma, WA 98409
253-328-5367

LANDSCAPE ARCHITECT 'S INFORMATION

Nature by Design, Inc.
1320 Alameda Avenue
Fircrest, WA 98466
253-460-6067

Integrated Pest Management Program (360) 867-2664

Thurston County Public Health and Social Services
3000 Pacific Ave SE, Olympia WA 98501

WSU Integrated Pest Management https://ipm.wsu.edu/

RELATED DOCUMENTS

Reference Material

Applicable References:
- Public Health & Social Services Environmental Health Division Policy# ONST.97.POL.805
- Thurston County Article VI Nonpoint Source Pollution of the Sanitary Code
- Thurston County (TCC) Title 24 Critical Areas Ordinance
- RCW 15.54.500 WAC Turf fertilizer – Prohibitions on application, sales, and retail display.
- City of Olympia Critical Areas Ordinance Chapter 18.32.225