

# Plants, Pests, and Rain Barrels:

## Natural Yard Care Program

### 2019 Evaluation



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Prepared for

Christi Cox  
Public Works Department



**City of Bothell™**

Tilth Alliance



Prepared by Maggie McKenna, PhD, MPH  
ConTEXT Evaluation

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# Natural Yard Care Workshops Evaluation

## Introduction

In fall 2019, City of Bothell contracted with Tilth Alliance to deliver workshops on natural yard care to inform and prepare local residents in best practices that address water quality issues and protect the environment. The Garden Hotline Educators at Tilth Alliance are experts in natural lawn and yard care and regularly educate audiences on adopting or maintaining natural yard care practices to conserve environmental resources.

Three classes and workshops were delivered in September at the Bothell Operations Center, a City-owned facility in the north end of Bothell's city limits:<sup>1,2</sup>

- Design a Yard Your Plants Will Love
- Plants vs. Pests: Put Away Your Battle Gear
- Smart Watering and Do-it-Yourself Rain Barrels



*Participants at the Design a Yard Your Plants Will Love class*

These 2019 workshops were offered as part of City of Bothell's commitment to promote natural yard care best practices and improve water quality. The City of Bothell previously participated in a 2014-15 evaluation of natural yard care education in conjunction with selected North and South Sound communities to document the effectiveness of outreach education models that varied in key elements.<sup>3</sup> The fall workshops are part of a regional Natural Yard Care (NYC) outreach and education program that began nearly ten years ago. The program has addressed water quality issues that are related to local residents' use of chemicals and pesticides as part of lawn and garden care. In 2018, Tilth Alliance Garden Hotline Educators delivered a series of workshops to Bothell residents about natural lawn care basics and choosing the right plants, and they also delivered a hands-

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<sup>1</sup> The terms class and workshop are used in this report to refer to the educational sessions. The two evening sessions included lectures so they are referred to as classes while the Saturday session included hands-on time to create a rain barrel so it is referred to as a workshop. At times, all the sessions are referred to as workshops for simplicity since participants were collecting practical information to apply at home.

<sup>2</sup> Photo credits are Christi Cox, Surface Water Program Coordinator – Education & Outreach, City of Bothell Public Works unless noted otherwise.

<sup>3</sup> City of Bothell. Program Review. Changing Public Outreach Methods Based on Evaluation Review 2016 North and South Sound Natural Yard Care Education Evaluation Report Prepared for: Snohomish County and City of Olympia December 31, 2015

on workshop at Centennial Park about aeration methods, overseeding and top-dressing with compost, planting techniques, and sheet mulching.

The classes and workshops held in 2019 were evaluated to identify the value of the sessions to reach and inform residents about natural yard care best practices. Two classes were held on Wednesdays in September and the demonstration/workshop on smart watering and do-it-yourself rain barrels was held on a Saturday. The participants were able to ask the instructors questions during and after class. Lawn- and garden-related incentives as well as a free on-site consultation from one of Tilth's experts were offered as door prizes at the end of each workshop. Door prize entry slips asked participants how they heard about the workshops so the City could collect information about what advertising methods were most effective with the participants.



The image shows a door prize entry slip for a class and workshop. The slip is white with a green border. At the top, it says "Welcome to Natural Yard Care: Design a Yard Your Plants Will Love!". Below that, it asks "HOW DID YOU HEAR ABOUT THIS WORKSHOP?". There is a list of options with checkboxes: Letter or postcard in mail, Facebook (City of Bothell), Facebook (Bothell Community), Bothell Bridge, City of Bothell website, City of Bothell e-news, Sustainamania or other event, Word of mouth, and Other. At the bottom, there is a "Name:" field and a thank you message: "Thanks for attending tonight's workshop! www.bothellwa.gov/nyc".

*Door prize entry slip for class and workshop participants*

The residents had opportunities to learn about the educational offerings through a number of channels including a quarterly citywide City of Bothell magazine listing local news, recreational options and activities, social media, City of Bothell's website, Council meetings, locally posted flyers, Tilth Alliance, EventBrite, outreach events, or through word of mouth promotion through friends, neighbors or local contacts. The participants could attend one or more of the classes or workshops so an individual could attend anywhere from two to seven hours of natural yard care instruction. The expected results are that participants will adopt natural yard care practices free of pesticides and chemicals and will also practice conserving resources through watering wisely. This document summarizes the responses from participants who attended one or more of the classes and workshops to describe the extent that local residents are applying what they learned to improve natural yard care and resource conservation practices. This report also summarizes feedback from participants who attended 2018 classes or workshops and have continued to implement natural yard and garden care practices.

## Methods for Data Collection and Analysis

The evaluation describes the local residents' uptake and application of information. The evaluation questions are based on underlying behavioral theories. Typically, individuals receive relevant information, consider this information, hear information again, apply information in practice, and then decide to move forward to change their behavior or maintain positive behavioral choices. The class participants were asked to respond to questions about their knowledge, actions, and intentions to use natural practices in their

yards and gardens. The evaluation questions are listed below followed by the data collection methods:

1. In what topics did 2019 NYC class/workshop participants learn new information?
2. To what extent are class and workshop participants committing to use natural yard care practices?
3. To what extent are class and workshop participants implementing natural yard care practices?
4. What are class and workshop participants' interests for future classes?

The Discussion section answers the question, How do results of 2019 Natural Yard Care sessions relate to similar sessions in 2018?

■ **Retrospective pre- and post- measures at classes** – At the two class sessions, participants were asked to respond to questions to identify changes in their knowledge and understanding of plant selection, management of pests, and using natural practices. The format was a retrospective pre-post questionnaire where participants self-assess how much they knew prior to the educational session and what they know after the session. This tool is especially appropriate for a short educational session of several hours duration where participants can reliably recall how much they knew about a topic at the start and end of a session. It is also a preferred approach to ask participants to complete a single form and not overwhelm them with separate pre and post- tests to complete in a span of two hours.

On four-point scale participants could rate themselves as not having any knowledge that corresponded to a 1, being aware but unsure of what they knew that was counted as a 2, being somewhat familiar that corresponded to a 3, and being well informed that counted as a 4. The average pre-class self-rating can be compared to the average post-care self-rating. It would be expected that participants would have less specific topic knowledge before a class and thus rate themselves lower but at the end of class they would have increased their understanding as indicated in an increase in the average post score.

■ **Statements of intention at workshops** – Following each of the workshops/ demonstrations the participants were asked to complete statements about how well prepared they were to apply what they learned and how likely they were to use what they learned. The results are reported by describing the responses of participants. The larger numbers of participants who reported they felt well

prepared would indicate that the demonstrations had succeeded in providing the skills and behaviors for the participants to implement in their home yards and gardens.

■ **Follow-up surveys for class participants** – The evidence of changing local residents’ garden and yard care practices actually rests with their actions and behaviors at their homes. We can ask about their intentions to use natural yard care practices but the proof will be what they do at home. Approximately six months after the third workshop in 2018, the participants from any of the classes were sent an email with a link to complete follow-up questions. The questions asked what practices they had started or continued as a result of attending sessions. This step was repeated at 12 months after the 2018 classes so there were two sets of responses to follow-up surveys from the 2018 Natural Yard Care class participants.

## Section 1. In what topics did 2019 NYC class/workshop participants learn new information?

### Class Results: Participants increased knowledge about Designing a Yard Your Plants Will Love



*Selena Ligrano, a Tilth Alliance Educator, teaching participants about the importance of weather direction*

In the first class on Design a Yard Your Plants Will Love, 62 participants heard about conditions to consider in plant placement, types of soil, and unique aspects of northwest gardens. The class participants showed the largest gains in knowledge on three topics: using compost on beds, selecting diverse plants, and designing a garden to reduce runoff. The average scores in pre-class knowledge were compared to

average post-class scores as shown below based on 38 participants completing class evaluations.<sup>4</sup>

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<sup>4</sup> Not all 38 participants answered every question.

**Class topics**

Selecting diverse plants to support natural habitat  
 Considering plant placement to conserve water and reduce runoff  
 Compost piled on garden beds to nourish soil

Pre-class average	Post class average	Change in knowledge
2.58	3.57	📈+.99
2.53	3.49	📈+.96
2.66	3.59	📈+.93

The participants also gained new knowledge in other yard and garden care topics. The slightly smaller changes would indicate that more participants had some knowledge about these topics prior to the class. These are still notable gains in learning about optimal plant selection and placement.

**Class topics**

Knowing microclimates and soil conditions for optimal site use  
 Plant selection for direction that garden faces  
 Placing plants correctly to avoid transplant later  
 Identifying purpose of plants

Pre-class average	Post class average	Change in knowledge
2.74	3.59	📈+ .85
2.89	3.57	📈+.68
3.03	3.70	📈+.67
3.00	3.57	📈+.57

**Plant placement and selection**

– Prior to the class, the participants were already familiar with two plant topics: considering plants’ mature dimensions before placement and selecting plants to conserve resources and decrease pollution. This was evident in pre-class averages of over 3 in these topics corresponding to the participants’ self-reported



*Photo: Seattle Public Utilities*

understanding. The participants had modest increases of .44-.45 in post-class scores in these areas.

## Class Results: Participants increased knowledge in Plants vs. Pests

There were 23 participants attending the class on Plants vs. Pests: Put Away Your Battle Gear who learned natural approaches to dealing with harmful pests and also creating habitat for beneficial garden pests. The 19 participants who completed evaluations had the highest average pre-class knowledge in two areas: wise watering to keep plants disease-free and having native plants to attract pollinators.<sup>5</sup> In the class, 63 percent were somewhat familiar with watering wisely and with the selection of plants to attract beneficial insects and pollinators. This is evident in the pre-class average of 2.89 and the post-class increase was .74- .78 in these topics.

**Before class – 63% of class participants were somewhat familiar with techniques for watering wisely and for planting a diverse garden to attract beneficial bugs.**

The class participants learned the most about using natural fungicides that can be made by mixing kitchen ingredients as evident in the largest gain in the post-class average. They also had increases greater than 1.1 in post-class knowledge about organic methods to pick off bugs, selecting specific plants that attract aphids, and spraying soapy water to deter bugs. The class participants were also somewhat aware about purposefully selecting plants to discourage bad bugs. Some of the participants were not at all familiar with using natural approaches or had very little knowledge about these topics prior to the class but they increased their understanding after class as shown below.

Class topics	Pre-class average	Post class average	Change in knowledge
Natural fungicide using soap, baking soda, oil to reduce mildew	1.53	3.28	📈+1.70
Organic method to pick off bugs and dispose in soapy water	2.16	3.39	📈 +1.23
Planting flowering plants such as nasturtiums to attract aphids away from other plants	2.32	3.53	📈+ 1.21

<sup>5</sup> Not all 19 participants answered every question.

Spraying soapy water to kill insects or sink yeast water to trap slugs

Selecting plants to discourage bad bugs

2.37	3.56	+1.19
2.26	3.44	+1.18

Overall, in this class on managing garden pests, the participants had slightly smaller increases in their knowledge in two other topics. This indicates that approximately half of the class participants were somewhat familiar with these natural approaches before class so overall there was an average after class increase of 1.04 and .85 in these topics:

- 📈 Planting a diverse garden could attract beneficial insects and pollinators that contribute to pest management.
- 📈 Using a physical barrier such as a breathable fabric may reduce flying bugs attacking vegetables



*Images of problematic pests discussed at Plants vs. Pests class*

At the end of class, more than half of the participants felt they were well informed in planting a diverse garden, and in having plants that attract beneficial bugs and pollinators. Slightly less than half of the participants felt they were well informed about using a natural fungicide or in using flowering plants such as nasturtiums to attract aphids.

## Workshop Results: Participants also gained knowledge about Smart Watering & Do-it-Yourself Rain Barrels



*Participants building rain barrels*

In the third and final workshop, 59 participants learned about Smart Watering techniques from Tilth Alliance and then jumped into making Do-it-Yourself Rain Barrels with Snohomish Conservation District. They drilled holes to ready their barrels for home use. Participants felt prepared to use smart watering guidelines and were very likely to use their do-it-

yourself rain barrel or a purchased rain barrel in their garden or yard to reduce water usage.

Seven participants completed evaluations at the end of the session. Participants were very satisfied with the amount of information they received in the Smart Watering and Do-it-Yourself Rain Barrel session. They were also interested to learn more about rain gardens and drip irrigation in future sessions.



*Class lecture about smart watering techniques*

## Section 2. To what extent are class and workshop participants committing to natural yard care practices?

The participants completed a range of hours of instruction since they could attend one or both classes as well as the workshop on Smart Watering and Rain Barrels. There were 62 participants in the first class on Designing a Garden; 23 attended the class on Plants vs. Pests and 59 were at the Smart Watering workshop. Approximately 30 participants attended two sessions such as two classes or a class plus the workshop. The participants were prepared at the end of classes in several topics as evident in the number who self-reported being “well-informed.”

**74% understand how watering wisely helps to keep plants disease free.**

**74% know that planting a diverse garden will attract beneficial insects and pollinators.**

**68% know to plant native plants and lavender without any chemical pesticides to attract bees and pollinators.**

**68% know to put the “right plant in the right place” and also understand compost can be piled on garden beds to nourish soil.**

Class and workshop participants were asked at the conclusion of each session to identify what natural yard or garden care actions they would apply in their yards and gardens. Stating or writing intentions to take action or to start a new practice are typically the first steps to changing or adopting a new behavior. The participants conveyed their intention

to improve or maintain their yard practices in several areas. The individual comments have been clustered into categories and the numbers correspond to the total number of participants committing to this practice. There was at least one participant who committed to each of the actions listed.

### **Lawn & garden care**

Annual reseeded  
Mulching lawn, different mulch materials, mulch/compost (5)  
Aerate annually  
Convert yard to garden

### **Yard & garden conditions**

Create micro-climates (3)  
Consider wind  
Get soil tested (2)

### **Plant selection & placement**

Select plants based on origin (2)  
North-facing and south-facing gardens  
Choose plants for sun, shade, weather  
Keep soil right for different plants  
Diversify plant selection (2)  
Select drought tolerant plants  
Place plants with similar needs together  
Layers by height, width

### **Approaches to reduce garden pests**

Not be too tidy in yard  
Mildew spray  
Identify pests better, pay attention to pests (2)  
Improve air circulation- rhody, azalea  
Get more lady bugs  
Diversify plants (2), attract pollinator

### **Take action to improve yard and garden**

Reduce chemical use  
Monitor conditions prior to applying anything to improve plants' happiness  
Wise watering  
Build, healthy nutrient rich soil (3)

### **Longer term solutions to manage pests**

Bat house, attract snakes  
Cover crops

### **Retain water in the garden**

Use a rain barrel (3)  
Plant a rain garden (3)  
Consider drip irrigation (3)



*Tilth Alliance staff leading a planting demonstration*

## **Section 3. To what extent are class and workshop participants implementing natural yard care practices?**

Participants in the 2018 natural yard care classes and workshops who agreed to follow-up contact received an email request to complete questions after their class participation. These participants were sent a

**6-month  
follow-up  
survey**

6-month follow-up survey in April 2019 and a 12-month follow-up survey in October 2019. There were 17 respondents in the 6-month follow-up survey. <sup>6</sup>

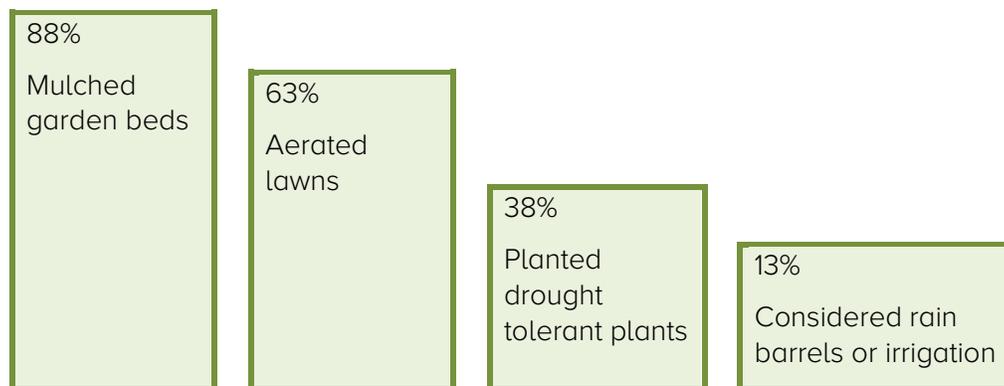
**6-month follow-up spring 2019** – There are very encouraging responses that class participants used what they learned to improve their yard and garden practices. In addition to the respondents regularly weeding their gardens to prevent them from going to seed, in the early spring, 72 percent of survey respondents had added mulch on plant beds. More than a third of respondents had prepared beds with compost. To improve soil health, 59 percent of respondents added compost or nutrients to build healthy soil and nearly as many loosened compacted soil.

Class respondents also planned to map their gardens including selecting drought resistant plants as well as replacing problem plants and relocating plants. Respondents improved their garden practices:

- **63 percent of respondents also did grasscycling**
- **50 percent aerated their lawns**
- **Three respondents indicated they had applied natural fertilizers**

The respondents had a high level of commitment to implement what they learned. When the respondents had not yet applied natural yard care practices, it was often due to the excessive snow in early 2019 and cold weather.

**Decreasing water use** – Respondents were active in decreasing water use in their gardens through a number of methods as shown below.



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<sup>6</sup> In 2018, 24 attendees completed the evaluation of the first class, 26 completed the second class evaluation, 8 attended and completed the Aeration workshop evaluation and 9 attended and completed the Mulching Workshop evaluation.

**12-month follow-up fall 2019** – 14 participants who had attended the 2018 fall classes responded to a 12-month follow-up survey in late October 2019. Nearly all of the respondents were readying their gardens for all and winter by using mulch on garden beds, cutting back perennials, and pruning bushes. Six respondents who had lawns applied natural fertilizer and five did grasscycling.

**12-month follow-up survey**

Respondents were very active in natural yard care practices as evident in 93 percent not using any chemicals or pesticides. Nearly all gardeners, 86 percent, disposed of dead plants and 79 percent weeded to minimize weeds going to seeds.

**Decreasing water use** – Another encouraging finding is that 100 percent of the 12-month follow-up survey respondents were watering wisely. More than 50 percent of



respondents were mulching garden beds while a third of the respondents were gardening with plants with low water needs and/or aerating their lawns. The number of responses would indicate the gardeners were each doing at least two best garden practices. There is continuity in actions with the participants reporting at the 6- and 12-month surveys that they mulched beds and planted drought resistant plants.

*Photo: Atyourservice. Seattle Public Utilities*

## Section 4. What are class and workshop participants' interests for future classes?

Participants in City of Bothell's Natural Yard Care classes are motivated to learn natural yard care practices and improve their gardens. Participants from 2018 classes who responded to the 12-month follow-up survey sought garden and yard care advice from many sources. Most often the respondents accessed websites and online sources with nearly half of the respondents following nursery gardening tips. Almost half of the respondents refer to printed resources while more than one-third attended demonstrations and workshops (other than City of Bothell classes).

The participants in the plants class and the respondents in the 6- and 12-month follow-up surveys listed their interests in new topics as well as expanding the topics that were presented. The responses about topics from all the surveys have been combined and the

suggestions are listed below. These local residents seem interested in attending future classes depending on the topic, day, and time. Evidence that Bothell residents are motivated to learn more about natural yard care practices is that 67 percent of the respondents who answered a 6-month follow-up survey were very likely to attend a future Natural Yard Care class. In the 12-month follow-up survey, 86 percent of respondents were very likely to attend future natural yard care classes. Numbers refer to the count of respondents who listed this response. All of the topics were listed by at least one respondent.

- **Pruning** (6) trees and bushes, bush and shrub trimming (3) with demonstration.
- **Planting** – including design (3) and specifics on which plants to choose slopes, shade, tiny yards. Planting for birds and bees (2), plant pairings such as what works well together for different kinds of gardens (2), butterfly, shade, hot and dry, rabbit resistant landscape. Plants for spring especially drought resistant; plants for Pacific Northwest zone (2). Plant recommendations, plant times for flowers and bulbs. In-hands experience with planting.
- **Gardening** – organic **edible gardening** (4), **container gardening**, cut flowers/pollinator gardening, permaculture gardening (3), vegetable and fruit gardening (2).
- **Basic yard care** – for a beginner
- **Natural bed maintenance**, raised vegetable bed gardens (3)
- Using **natural yard care** techniques with aesthetic plant displays, how to make a garden pretty, using recycled materials in garden displays.
- **Soil** – how to correct soil compaction- how to interpret soil analysis, how to select amendments to correct soil, improving soil conditions, judging soil quality.
- **Weeds** – care of non-yard areas such as weeds in cracks, decreasing weeds in natural paths. Identifying weeds – noxious and nuisance, getting rid of weeds.
- **Water** needs for different root systems, different types of plants, how to balance water so don't get unwanted fungus
- **Low maintenance lawn** (2), landscape.
- **Resources** – how to keep gardening affordable, share resources, plants, chip dumps. Maybe a guest landscaper who planted Anderson School campus

## Discussion: How do results of 2019 Natural Yard Care sessions relate to similar sessions in 2018?

Among the participants in the class on plants and managing garden pests, two-thirds of the participants had attended at least one other City of Bothell natural yard care session in the past two years. We could infer that a large proportion of 2019 class participants were also attendees in a 2018 class or workshop. This indicates that attendees are motivated to learn current content through attending instructional sessions over time.

In reviewing the overall results from the 2018 workshops, the average changes from pre-class knowledge to post-class knowledge were greater than 1.58 in nine topics. In contrast, in 2019, participants had an average pre-class to post-class increase of 1.58 in only one topic – the use of natural fungicides. In the 2019 classes, the average changes in pre- to post-class knowledge were smaller at .44 to 1.23.

In the 2018 class on Healthy Lawns and Gardens, the participants showed the largest gains in knowledge of 2 or greater in three areas. These were learning to use grass fertilizer once a year with grasscycling, not using phosphorus on lawns, and improving lawn drainage. The increases in these three areas were greater than any of the average increases in knowledge of specific topics among the 2019 classes. The focus of the second 2018 class was on the selection of plants for the “right place.” The participants showed a large increase in knowledge about using a can to test hose watering volume and to also add organic material to soil to improve water retention. The increases in all of these topics were much greater than any of the increases in knowledge in all of the topics addressed in the 2019 classes and workshops on plants, garden pests, watering, and rain barrels.



*Participants collecting natural yard care resources during class break*

There are several interpretations for the evidence of much larger knowledge increases in the 2018 participants. The class topics in “Healthy Lawns and Gardens” and “Smart Plant Choices” could have been introducing new content and the participants could have been local residents who were inexperienced gardeners, so they found the classes to be very educational as reflected in how much they learned. The finding that there were smaller increases in knowledge across most topics in the 2019 classes could be interpreted in several ways. There could have been more experienced gardeners who attended the

2019 classes so they affirmed what they already knew. The 2019 attendees might have also been knowledgeable about the specific topics covered in the classes and might have selected the classes to get support for what they were already doing. Since we know that nearly two-thirds of the participants in the garden pest class this year had attended a previous Bothell Natural Yard Care class, it is possible that this year's class attendees were in a class last year. They might have added to their garden knowledge during the past year by accessing other resources that contributed to their responses on this year's class evaluations showing more prior knowledge along with smaller gains in topic knowledge from the class.

The notable differences among the class participants' self-reported increases in knowledge suggest that there is quite a range in local gardening audiences' levels of experience and knowledge in specific topics. This suggests that some gardening topics and presentations may be better suited to beginning gardeners while other topics and demonstrations might be geared to experienced knowledgeable gardeners. A goal for an audience of relatively new gardeners would be to inform them about natural yard care practices to promote their adoption and use of these practices. This audience would likely show larger changes in knowledge from pre to post class instruction. With an audience of experienced gardeners, the goal may be to reaffirm their use of natural practices but they would likely show smaller changes or gains in knowledge of new information.

## Suggestions to Improve Classes and Future Class Topics

- **Consider classes for beginners and advanced gardeners.** The variety of responses from the class participants indicates that some attendees are ready for advanced information on natural yard care classes while there are other local residents who would be more interested in and benefit from basic natural yard care instruction. The future classes might be presented in beginner and advanced formats and could be described in advance to attract appropriate audiences. Advance descriptions about the classes including what gardeners might expect to learn could lead to local residents selecting to attend the class that is most appropriate to their learning and to their satisfaction.
- **Consider the range of topics to offer a series of classes.** The long list of topics for future classes is a very positive sign of a high level of interest among local residents to learn natural yard care practices and to implement these yard and garden practices. The topics include a basic interest to learn about soil conditions, types of soil, and improving healthy soil. More experienced gardeners

are interested in advanced topics such as planning water or irrigation systems for plants that have different water needs or are drought tolerant. Some participants would like even more “how-to” tips and photos in classes to help prepare for garden and yard work. These are varied topics and could be addressed through an array of teaching approaches from lectures, demonstrations, and hands-on workshops. An option is to develop a topic into a series of two to three sessions with the content in a later session building on the content in the first session. This might address the learning needs of some local residents who are asking for instructions or specifics on irrigation or on optimizing their gardens based on soil conditions. A series might be promoted with class descriptions that list skills that a prospective attendee could acquire in each session that would support their enrolling in an appropriate session.

■ **Continue hands-on workshops or active learning classes.** There were 59 attendees in the Smart Watering workshop with many of these participants staying to make a rain barrel. This level of participation indicates a very interested and motivated group of local residents. The high attendance suggests that a future topic on watering practices, irrigation, retaining water in yards and gardens, rain gardens, and rain barrels or cisterns might be welcomed by local residents and could be well attended. A different topic that also had high interest was directions for pruning bushes with an emphasis on practical tips and “how-to” guidelines.

■ **Encourage evaluations to be completed.**

The number of participants who complete evaluations at the end of classes is generally very high except at the workshop. At the rain barrel workshop, the majority of attendees left without completing the evaluation but this can be improved by arranging the class evaluation to be like an exit ticket or linking the return of a completed evaluation to receiving a handout or piece of information on other upcoming classes.

■ **Continue to offer incentives.** There is encouraging evidence in the number of responses received on the post class follow-up evaluations. This may indicate that



*Participant making a do-it-yourself rain barrel at workshop*

local gardeners are glad to be responding about their success in their yards and gardens. Offering an incentive to complete a follow-up survey seems like a good idea to continue to encourage local residents and past class attendees to respond.

**Appendix A**  
**Design a Yard Your Plants will Love**  
**September 18, 2019 Participant Evaluation**

Please read each statement below. Mark an answer on the LEFT for how much you knew about the topic **BEFORE** this session. Next, on the RIGHT, mark how much you know **AFTER** this session.

BEFORE				START HERE--- READ THIS STATEMENT FIRST  	AFTER			
Did not know this	Not sure about this	Somewhat familiar	Well informed		Did not know this	Not sure about this	Somewhat familiar	Well informed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1. Identifying the purpose of plants such as privacy, shade or appearance is significant for garden planning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	2. Getting the right plant in the right place is preferable to transplanting later.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	3. Selecting and planting the right plants can conserve resources and decrease pollution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	4. Knowing microclimates, soil conditions, and topography are essential for optimal site use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	5. Successful plant selection will vary for north-facing or south-facing gardens.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	6. Over winter, compost can be piled on garden beds and covered to help nourish the soil.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	7. Mature height, width, and rate of plant growth should be considered before plant placement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	8. Selecting and planting diverse plants can contribute to supporting natural habitat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	9. Designing a garden should include considering how to conserve water and reduce run-off.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**What practice did you learn tonight that you will use in your garden?**

---

**How satisfied were you with the content presented in this class?**

- Not at all satisfied     
  Met my expectations     
  Exceeded my expectations

**What topic would you most like to learn more about?**

---

We would like to email you a short online survey to find out if the information you learned tonight was useful. As a thank you after taking the survey you can enter a drawing to win a prize related to class topics.

NAME \_\_\_\_\_

E-MAIL, PLEASE PRINT \_\_\_\_\_

Please read each statement below. Mark an answer on the LEFT for how much you knew about this topic **BEFORE** tonight. On the RIGHT, mark how much you know **AFTER** this session.

BEFORE				START HERE--- READ THIS STATEMENT FIRST	AFTER			
Did not know this	Not sure about this	Somewhat familiar	Well informed		Did not know this	Not sure about this	Somewhat familiar	Well informed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1. Natural methods include spraying soapy water to kill insects or sinking a cup with yeast water to trap slugs and snails.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	2. Selecting plants carefully can actually discourage "bad" bugs that become pests.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	3. Some flowers such as nasturtiums might attract aphids away from vegetables or other plants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	4. Planting a diverse garden could attract beneficial insects and helpful pollinators that contribute to pest management.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	5. A natural fungicide made by mixing detergent, baking soda and oil could be used to reduce mildew on squash or other susceptible plants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	6. Lavender and native plants without any chemical pesticides may attract bees and other pollinators.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	7. Using a physical barrier such as a breathable fabric may reduce flying bugs attacking vegetables.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	8. One organic method to get rid of pests is to pick off the bugs and dispose of them in a plastic bag of soapy water.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	9. Wise watering and nutrient rich soil helps keep plants disease free to reduce bug invasions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What new practice are you likely to use in your garden? \_\_\_\_\_

In the past two years, how many City of Bothell natural yard care classes or workshops have you attended? (not counting tonight's class)

- None                     
  1-2 classes or workshops                     
  More than 3 classes or workshops

How satisfied were you with the content presented in this class?

- Not at all satisfied                     
  Met my expectations                     
  Exceeded my expectations

If you have not already given your email, please write your email below. We would like to send a short online survey to ask if this information is useful. After taking the survey, you may enter to win a prize related to class topics.

NAME \_\_\_\_\_

E-MAIL, PLEASE PRINT \_\_\_\_\_

*Please mark X or circle your answer and add any comments you wish on the back. Thank you.*

	<i>Not at all</i>	<i>Somewhat</i>	<i>Extremely</i>	<i>Not able to answer</i>	
1	How satisfied are you with the practical tips and actions demonstrated today?	●	●	●	●
2	How ready are you to start or continue the current smart watering guidelines that were covered today?	●	●	●	●
3	How likely are you to use a DIY or purchased rain barrel in your garden or yard?	●	●	●	●
4	What are two actions you can do to conserve water in your yard or retain water in your garden? _____ _____				

Please add your name and email, if you have not already provided your email. We may send a short online survey to ask if you are using these practices. As our thanks, after taking the survey you can enter a drawing for a prize related to class topics.

NAME \_\_\_\_\_ EMAIL (please print) \_\_\_\_\_

**Appendix A – It's time to Plan to Spring into Action – Are you using Natural Yard Care Practices?**



**6 Month Follow-Up Survey – after Fall 2018 Classes/Workshops**

We'd like to learn if you have used any natural yard or garden care practices since attending a workshop or demonstration in October. We'd also like to learn what information could increase natural yard care. Please answer each question. Thank you for your time and at the end of the survey, there's a chance to win a prize for participating.

**1. Have you made any improvements to the soil in your yard or garden? (Check all that apply)**

- Left leaves as mulch for garden beds
- Loosened soil that was compacted
- Tested soil pH to see if amendments are needed (cold winter can lead to acidity)
- Added compost or nutrients
- I have not made any soil improvements
- Other \_\_\_\_\_

**2. Have you done any best planting practices? (Check all that apply)**

- Weeded beds to prevent weeds from going to seed
- Have planted native plants
- Have started plants inside (to move outside later)
- Placed new plants considering soil and microclimate
- Added mulch to hold moisture around plants
- I prepared beds with compost
- Planted a diverse garden to reduce pests
- I have not done any planting
- Other \_\_\_\_\_

**3. Are you considering planning your garden including mapping? (Check all that apply)**

- I plan to map my garden and make changes
- Yes, I have mapped my garden or will start work soon.
- Not sure I'll do any garden mapping or planning
- I didn't do a garden map but added new plants.
- Replaced problem plants or relocated plants
- Will think about drought-resistant plants
- Am considering a rain garden
- Other \_\_\_\_\_

**4. If you have not been active in your yard or garden in the past six months, could you please let us know why? (Check all that apply)**

- Have not had time to do yard work
- Delayed due to snow and weather
- Planning to wait till later in spring
- Unsure or undecided what I'll do
- I'm planning actions I will take
- Exploring new options or choices
- Trying to get help to do the work
- Other \_\_\_\_\_

**5. What have you practiced to renovate or maintain your lawn? (Check all that apply)**

- |  |  |  |   |
|--|--|--|---|
| <input type="checkbox"/> Raked or removed thatch                                     | <input type="checkbox"/> Aerated lawn-mechanical or manual   | <input type="checkbox"/> Applied natural fertilizer in fall        | <input type="checkbox"/> Had done top dressing in the fall with compost       |
| <input type="checkbox"/> Left grass trimmings on the lawn to feed it (Grass cycling) | <input type="checkbox"/> Planted ground cover to slow runoff | <input type="checkbox"/> Am deciding what to do to improve my lawn | <input type="checkbox"/> Will wait till late spring to add natural fertilizer |
| <input type="checkbox"/> I am not planning to renovate or maintain my lawn           | <input type="checkbox"/> Other _____                         |  |   |

**6. What actions are you taking to improve watering and decrease water use? (Check all that apply)**

- |  |   |  |  |
|--|---|--|--|
| <input type="checkbox"/> I'm planning irrigation to reduce wasting water | <input type="checkbox"/> I have or will plant low water needs plants      | <input type="checkbox"/> I mulched /will mulch garden beds | <input type="checkbox"/> I aerated /will aerate the lawn |
| <input type="checkbox"/> I am considering a rain barrel or cistern       | <input type="checkbox"/> I am not considering actions to improve watering | <input type="checkbox"/> Other _____                       |  |

**7. Are you considering attending future workshops or demonstrations?**

- |  |  |                                   |   |
|--|--|-----------------------------------|---|
| <input type="checkbox"/> Very likely to attend | <input type="checkbox"/> Somewhat likely to attend | <input type="checkbox"/> Not sure | <input type="checkbox"/> Not likely to attend |
|--|--|-----------------------------------|---|

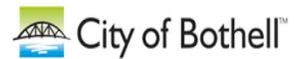
**8. What topics would you like to learn more about?**

If you would like to be entered in a drawing for a free book about northwest gardening, please enter your information below so we can notify you if your name is selected. We will not use your email for any other purpose.

\_\_\_\_\_ Name

\_\_\_\_\_ Email

**Appendix A – What Natural Yard Care Practices do you use to  
Put your Garden to Bed?  
12 Month Follow-Up Survey – after Fall 2018 Classes/Workshops**



Thanks for attending a Natural Yard Care class or workshop last year. To help us learn if Bothell residents use natural yard or garden practices, could you please answer the questions that follow? Thank you for your time! At the end of the survey, there's an option to enter a drawing to win a garden related prize.

**1. What have you done or what do you plan to do to prepare your garden to rest in late fall and winter? (check all that apply)**

- |  |   |   |  |
|--|---|---|--|
| <input type="checkbox"/> I use mulch on garden beds.                 | <input type="checkbox"/> I cover flower beds with burlap.       | <input type="checkbox"/> I cut back perennials.           | <input type="checkbox"/> I prune berry bushes or other bushes. |
| <input type="checkbox"/> I spread compost over still growing plants. | <input type="checkbox"/> I use a cover crop such as winter rye. | <input type="checkbox"/> I haven't made any preparations. | <input type="checkbox"/> Other                                 |

**2. What have you done or plan to do to prepare your lawn for winter? (Check all that apply)**

- |  |  |  |   |
|--|--|--|---|
| <input type="checkbox"/> I rake or remove thatch.                              | <input type="checkbox"/> I leave grass trimmings on the lawn to feed it (Grass cycling). | <input type="checkbox"/> I applied natural fertilizer. | <input type="checkbox"/> I did top dressing with compost. |
| <input type="checkbox"/> I am not planning to do anything to maintain my lawn. | <input type="checkbox"/> Other _____   |  |   |

**3. In the past year, what natural yard care practices have you followed? (Check all that apply)**

- |   |   |  |  |
|---|---|--|--|
| <input type="checkbox"/> I have not used any chemicals or pesticides. | <input type="checkbox"/> I planted drought resistant plants.    | <input type="checkbox"/> I have weeded to minimize plants going to seed.   | <input type="checkbox"/> I prepared beds with compost. |
| <input type="checkbox"/> I selected plants to attract pollinators.    | <input type="checkbox"/> I disposed of dead or diseased plants. | <input type="checkbox"/> I don't make any effort to use natural practices. | <input type="checkbox"/> Other _____                   |

**4. If you have not been active in your yard or garden in the past year, could you please let us know why? (Check all that apply). If you've worked on your garden or yard please skip to #5.**

- |   |  |  |                                |
|---|--|--|--------------------------------|
| <input type="checkbox"/> I have not had time to do yard work. | <input type="checkbox"/> I am trying to get help to do the work. | <input type="checkbox"/> I'm unsure or undecided what to do. | <input type="checkbox"/> Other |
|---|--|--|--------------------------------|

**5. What actions are you taking to improve watering and decrease water use? (Check all that apply)**

- I am considering a rain barrel or cistern       I have low water needs plants       I watered wisely       I mulched /will mulch garden beds
- I aerated the lawn       I am not considering actions to improve watering       Other

**6. Are you considering attending future workshops or demonstrations?**

- Very likely to attend       Somewhat likely to attend       Not sure       Not likely to attend

**7. What topics would you like to learn more about?**

**8. What gardening or lawn care resources, in addition to the City of Bothell Natural Yard Care workshops, do you regularly use? (Check all that apply)**

- Garden Hotline (Tilth Alliance)       Yard Talk (King County TV podcasts)       Online searches for garden and plant care       Printed guides, e.g. Maritime Northwest Garden Guide
- Nursery gardening tips or plant information (e.g. Molbak's, Flower World, Swanson's etc.)       Demonstrations or Workshops (e.g. Master Gardeners)       Other

If you would like to be entered in a drawing for a garden related gift, please enter your information below so we can notify you if your name is selected. We will not use your email for any other purpose.

\_\_\_\_\_ Name

\_\_\_\_\_ Email