City of Tacoma  
Environmental Services Department  

January 27, 2016  

Chris Montague-Breakwell  
Municipal Stormwater Permit Manager  
Department of Ecology – SWRO  
Water Quality Program  
P.O. Box 47600  
Olympia, WA 98504-7600  


Dear Mr. Montague-Breakwell:  

The purpose of the enclosed report is to satisfy the requirement under Section S5.C.10.c in the 2013 Phase I Municipal Stormwater Permit to measure the understanding and adoption of at least one targeted audience in at least one public education and outreach subject area. The subject area we have chosen to study is residents’ adoption of yard care techniques protective of water quality.  

Since 2007, Tacoma and Pierce County have contracted with the local health department to provide seasonal Natural Yard Care workshops as a behavior change tool to provide the information residents need to use natural yard care practices on their lawns and gardens. The workshops were offered in series of 2 to 3 consecutive workshops within a 6-week period on a selection of topics from the regionally-developed “5 Steps of Natural Yard Care” (www.tpchd.org/naturallyardcare). The program evaluation in the attached study has shown the workshops to be less successful at creating yard care behavior changes in significant numbers of Tacoma and Pierce County residents. Consequently, in 2016, the Natural Yard Care program is being redesigned to promote the Pierce County WSU Extension Master Gardener experts, clinics and hotline as key resources for personalized natural yard care advice.  

Please contact Lorna Mauren at (253) 502-2192 or lmauren@cityoftacoma.org if you have any questions.

Geoffrey M. Smyth, P.E.  
Environmental Services Division Manager  

-gms:lm  

Cc: Lorna Mauren, P.E., Assistant Division Manager  
Shauna Hansen, P.E.  
Sandi Holdener  
Science and Engineering Division  
326 East D Street  
Tacoma, WA 98421-1801  
(253) 591-5588  
www.cityoftacoma.org
Acknowledgements

The development of this report involved many hours of work by the Tacoma-Pierce County Natural Yard Care Strategy Team. The team was comprised of staff representing: City of Tacoma Environmental Services, Science and Engineering; Pierce County Surface Water Management; Tacoma Pierce County Health Department; and the WSU Pierce County Extension Master Gardener Program. In addition to the team members, we would like to especially recognize the research and contributions by Rachael Brown, student intern from the University of Washington, FRAUSE consultants, City of Tacoma review staff and Pierce County Master Gardeners who participated in the focus group and interviews referenced in this report. Thank you to everyone who contributed.

Tacoma-Pierce County Natural Yard Care Strategy Team Members:

Walt Burdsall, Tacoma-Pierce County Health Department
Shauna Hansen, City of Tacoma Environmental Services, Science and Engineering
Tiffany O’Dell, Pierce County Surface Water Management
Kerri Wilson Buckingham, WSU Pierce County Master Gardener Program Coordinator
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Introduction

Pierce County, City of Tacoma, Tacoma-Pierce County Health Department and the Washington State University Pierce County Master Gardener Program (the project team) partnered to create a natural yard care program that will affect behavior change among residents. The program seeks to reduce yard care practices that may cause polluted runoff such as the use of chemical fertilizers, herbicides and pesticides. Natural yard care (NYC) education and outreach is part of a multi-pronged Stormwater Management Program implemented by the City of Tacoma (City) and Pierce County (County) to reduce multiple sources of polluted runoff under their National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Stormwater Permits issued by Washington State Department of Ecology.

The project team has found that Master Gardeners are a trusted source of gardening information for County and City residents and that recommendations provided by Master Gardeners are consistent with NYC practices that reduce water quality impacts from the extensive use of yard care chemicals by homeowners. In the past, the City and County have sponsored a Natural Yard Care Workshop series modeled after the successful, decades-old King County program, but these workshops have proven to be less successful at reaching City and County homeowners. The program is being revised to improve knowledge of and access to the Master Gardener program and provide Master Gardeners with tools to make residents more successful in implementing their advice.

This NYC outreach project is being designed as a social marketing and education campaign to change the behavior of home gardeners using Nancy Lee’s ten steps for social marketing (please see Lee’s book for detailed information about the approach).1

This report covers Social Marketing Steps 1 through 8 and will also include an effectiveness evaluation of the existing NYC Program. The report includes:

- Key findings about public knowledge or perceptions about stormwater pollution
- Data related to the prevalence of yard chemicals and their detection in the environment
- Health and environmental impacts related to the use, storage and disposal of yard care chemicals
- The known motivators and barriers to using natural yard care techniques for residents
- Participant surveys evaluating the effectiveness of the existing City and County NYC programs
- Recommendations for improvements to City and County NYC outreach efforts

Based on the conclusions of this report, the project team is moving forward with developing new NYC outreach approaches and tactics that will motivate homeowners to use the Pierce County Master Gardener program as a source of recommendations for NYC products and methods to solve their yard and garden problems.

**Background Information - Project Motivation and History**

**Purpose and Goal Statement**
This program is being developed to motivate City and County homeowners to use natural yard care (NYC) products and methods in their yard care routine instead of chemicals thus reducing water pollution caused by polluted runoff from yards and gardens. This campaign will focus on the Master Gardener program as a key resource for NYC advice.

**Project Drivers (PSP Targets and NPDES Permit)**
Counties and cities in the Puget Sound region are required to meet standards and Best Management Practices (BMPs) incorporated in federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit. The NPDES regulations encourage permitted jurisdictions to work collaboratively on a regional basis to accomplish outreach and education targeting specified audiences and BMPs. The 2013-2018 Phase I and Phase II NPDES permits require jurisdictions to implement education, outreach, and behavior change projects to improve water quality. NPDES permits also require jurisdictions to measure at least one project for effectiveness.

The Puget Sound Partnership (PSP) has established 2020 goals for the recovery of the ecosystem health of the Sound and its drainage area. The targets include water quality, stream health, toxics in fish, and sediment quality. All of these targets can only be met if ongoing sources of pollution, including the types of chemicals used on lawns and gardens, are reduced. Key strategies in the Partnership’s 2012 Action Agenda are to conduct source control (i.e., reduce the pollution coming out of sources such as yards) and to conduct education/outreach efforts such as social marketing. This NYC program helps to meet these objectives.

**History of Existing Natural Yard Care (NYC) Workshop Program**
Since 2007, the Tacoma-Pierce County Health Department (Health Department) has been contracted by the County, City of Tacoma and other local cities to provide seasonal NYC workshops to residents of the City and County as an outreach tool to provide the information homeowners need to use NYC practices on their lawns and gardens. The workshops were
offered in series of 2 to 3 consecutive workshops within a 6-week period on a selection of topics covered in the 5 Steps of Natural Yard Care (www.tpchd.org/naturalyardcare.) The steps include agreed upon best management practices to help protect water quality in the Puget Sound region. This program was based on a model of community-based social marketing used initially by King County to motivate homeowners to come together with their neighbors in a targeted watershed area and learn about and implement NYC behaviors. However, the program in the City and County did not follow all of the social marketing principles and practices implemented in the King County workshops. And despite the fact that the workshops were widely advertised, they drew much smaller numbers of attendees than in King County, on average less than 30 participants per workshop and often in the range of 10-20 participants.

**Regional Natural Yard Care Programs**

Beyond the efforts of the City, County and the Health Department, NYC messaging and behavior change programs are being implemented by various other regional organizations.

**Puget Sound Starts Here Campaign**

A partnership among Puget Sound governments, agencies, NGOs, and non-profits provides general awareness BMPs for NYC that the public may follow at its webpage (www.pugetsoundstartshere.org) as part of a “Puget Sound Starts Here” education campaign. This webpage is similar to many others created by public agencies and non-profit organizations nation-wide. Recommendations include:

- Plant the right plant in the right place.
- Build healthy soil.
- Use physical and natural solutions before turning to pesticides.
- Accept a little damage.
- Clean up diseased plants to prevent spread.
- Plant trees

**WSU Extension Master Gardeners**

As stated on their website (www.piercemg.wsu.edu), the purpose of the WSU Extension Master Gardener Program is to train volunteers to be effective community educators and leaders in gardening and environmental stewardship. Master Gardeners provide information generated from research at WSU and other university systems. Today’s Master Gardener volunteers teach local community members to:

- Manage their gardens and landscapes in a science-based, sustainable manner;
- Address environmental and social priorities such as water conservation and water quality protection;
- Reduce the impact of invasive species; and,
- Increase public awareness of healthy living through gardening.
Pierce County Master Gardener volunteers staff a clinic site at their headquarters in Tacoma where residents can walk up, call in or email to get their gardening questions answered. They also staff various satellite clinic sites around the county at farmer’s markets, home and garden stores, Washington State Fair events, and elsewhere. They also conduct gardening workshops throughout the year at their demonstration garden site on the WSU Extension campus in Puyallup and at the Sehmal Homestead Park in Gig Harbor.

Seattle Tilth

The mission statement of Seattle Tilth also supports the spread of NYC practices (www.seattletilth.org):

*Seattle Tilth inspires and educates people to safeguard our natural resources while building an equitable and sustainable local food system.*

Seattle Tilth hosts various outreach events in Seattle and a regional garden hotline, as well as providing classes at their various community garden sites in Seattle and at their 39-acre farm site in Auburn. Recently Seattle Tilth lead a grant effort through the Washington Department of Ecology’s Grants of Regional and Statewide Significance (GROSS) to develop a toolbox of materials including information cards and labels for local garden stores to install at the point of sale to help inform buyers of safer and organic choices for NYC products.

Existing Program Evaluation

In 2014 and 2015, in an effort to understand why workshops weren’t working, the project team reviewed workshop logistics, survey data and more to look for ways to improve program outcomes.

2011 Workshop Participant Survey Results

The participants from a set of NYC workshops in 2011 and prior were surveyed at the workshop and followed up again six months later to identify any changes in their NYC knowledge and practices after attending the workshops. The following results were significant:

- Motivations for attending the workshop: Motivations varied, but almost half wanted to improve their lawn or garden, while only about 36% said they wanted to learn how to protect the environment. This suggests that lawn and garden appearance and health was a primary motivation to the workshop audience members, while environmental impact was a secondary motivation.
Knowledge and behavior changes:

- Wise watering practices – participants reported being more informed about wise watering practices following the workshop, but there was not a significant difference in irrigation practices.
- Plant selection – participants reported being more informed about choosing the right plant for the site following the workshop, and chose drought-resistant and pest-resistant plants more often after the workshop.
- Building healthy soil – participants reported being more informed about choosing the right plant for the site following the workshop, they also reported using compost, mulch and slow release fertilizers more often after the workshop.
- Natural lawn care – knowledge and practice of over seeding, aerating and fertilizing in spring and fall increased significantly at follow-up.
- Pest and disease control – knowledge increased of non-chemical pest control methods following the workshops, but avoiding chemical pesticides, properly identifying diseases or pests prior to taking action and encouraging beneficial insects in practice did not increase significantly at follow-up.

In conclusion, the workshop appeared to be effective at increasing the general knowledge of the participants in a variety of NYC practices, and varied on behavior change impact depending on the type of yard care practices being taught.

2013 Program Assessment

In the review of the program by FRAUSE consultants who helped develop and implement the King County Natural Yard Care workshop program, several reasons were suggested for a lack of successful reach by the Tacoma-Pierce County workshop program. A summary of those reasons is listed below (complete report is included in Appendix B):

- **Workshop locations** often held in public buildings that may be less comfortable for the target audience and less appropriate for the subject matter.
- **Workshop speakers** mostly affiliated with a government agency, although knowledgeable, presenters may not have been focused as much on the audiences motivations as the environmental benefits of the behaviors.
- **Marketing** varied in design with no effort to build a recognizable brand. Images lacked a feeling of home, family and yard. Many were copy-heavy and didn’t include many photos of garden flowers and plants, but included rather large agency logos which may have served to discourage audience members from attending a “government” function.
- **Recruitment methods** varied from workshop to workshop (including direct mail, newsletters, utility bill mailers, ads in the local newspapers, posting on city and county websites, posting flyers in public locations, and door-to-door canvassing) and lacked consistent follow-up such as confirmation postcards, reminder calls and reminder emails prior to the events which are recommended to ensure actual attendance.
2015 Update of NYC Workshop Program

In 2015, two workshop series serving Tacoma’s Titlow Creek and Puget Creek neighborhoods and one workshop series in Gig Harbor were redesigned according to the strategic plan recommendations developed from the existing program assessment described above. The following changes to the workshops were implemented:

- Conduct natural yard care workshops in small communities or neighborhoods. Target invitations to neighborhoods with about 2,000 households, based on proximity to priority watershed or receiving water bodies and a windshield tour to evaluate neighborhood characteristics. Neighborhoods near Titlow Creek and Puget Creek were selected.
- Create more consistent, eye-catching marketing materials focused on personal benefits of participating. A matching series of direct mail postcards and calendars, yard signs and banners posted in a local neighborhood park, and a new program website (www.friendlytacomayards.org) were created according to the consultant recommendations for the two Tacoma-based workshops.
- Hold the workshops at community friendly venues rather than government offices. The workshops were hosted at a community park, the zoo, and a local school.
- Prioritize well-known influential speakers to attract larger audiences. Well-known gardening experts who have been published in the Tacoma News Tribune and spoken at local gardening clubs were selected as presenters.
- Revise the workshop survey to shorten the length and target specific natural yard care behaviors covered in the workshop. Make sure follow-up survey questions match the initial survey questions for easier analysis and more informative results. Surveys were revised accordingly.

Overall, the number of 2015 workshop participants increased from past years. The three Gig Harbor workshop participant numbers ranged from 37 to 58 participants per workshop. The Puget Creek neighborhood workshops had 38 and 45 participants respectively. In one case, (Titlow Park workshops), registration was so low, the workshops had to be cancelled.

2015 Workshop Participant Survey Results

The participants from Tacoma’s Spring 2015 workshop series targeting the Puget Creek neighborhood were surveyed at the workshop and followed up again six months later to identify any changes in their NYC practices after attending the workshops. The following results were significant:

- Behavior changes:
  - **Wise watering practices** – Six of the 18 “Un-Thirsty Garden” Workshop participants responded to the 6-month follow-up survey about four specific behaviors that promote water conservation:
    1. One of the respondents reported already adjusting their watering schedule based on plant needs, soil type and weather prior to the workshop; two of the
respondents reported adjusting their watering schedule following the workshop; two said they plan to during the next year; and one said they would not try it.

2. Three of the respondents reported already using smart watering to prevent runoff onto driveways, sidewalks or streets prior to the workshop; two said they plan to during the next year.

3. Two of the respondents reported selecting plant locations in the yard to meet their sun, water and soil needs prior to the workshop; two said they did it following the workshop; and two said they plan to do it during the next year.

4. One of the respondents reported using soaker hoses or drip irrigation already prior to the workshop; one reported using soaker hoses or drip irrigation after the workshop; and three said they plan to during the next year.

   o **Plant selection** – Six of the 18 “No Fear Garden Design” Workshop participants responded to the 6-month follow-up survey about three specific behaviors that involve selecting the right plants for the right place:

   1. Three reported selecting new plants suited to the sun and soil moisture conditions in their yard prior to the workshop; two reported doing it after the workshop; and one said they plan to do it during the next year.

   2. Four reported selecting plants that resist pests and diseases better prior to the workshop; two said they plan to do it during the next year.

   3. Three reported relocating plants in their yard to better meet their sun and soil moisture needs prior to the workshop; one reported doing it after the workshop; and two said they plan to do it during the next year.

In conclusion, in the small sample of survey respondents, the workshops appeared to be effective at increasing the desired behaviors in about half of the participants. However, these numbers should be qualified with the consideration that the participants who responded to the surveys are likely more committed than the non-respondents to implement the practices they learned about. They may have also been more willing to answer the follow-up survey because they had implemented the workshop tips during the last six months. Responses also revealed that a significant number of participants were already doing these behaviors prior to the workshops.

**New Program Focus**

Based on the observed lack of significant targeted behavior change in NYC practices resulting from the neighborhood workshop series, the City and County have decided to refocus their NYC outreach efforts to support the Pierce County Master Gardener program:
• Workshop attendance improved only sporadically in 2014 after implementing many of the recommendations from FRAUSE. Workshops continued to have spotty attendance and limited reach. The City and County have not been able to achieve adequate return on investment for the cost to the program for coordinating, promoting and hosting the workshops. Even after evaluating and restructuring the workshop program, attendance remained generally lower than desired.

• During the past few years, many other gardening workshops have become popular and are being sponsored by a variety of other community entities including the City of Tacoma EnviroHouse, Pierce County Environmental Educators, Pierce County Master Gardeners, Tacoma Library system, Harvest Pierce County, Tacoma Healthy Homes Healthy Neighborhoods partnership, and Gallucci Community Gardens. These workshops have provided our target audience with many other opportunities to learn about NYC techniques. The various other gardening workshops compete with the Health Department-organized workshops for the target audience’s time and attention and are often more effective at attracting participants.

• Initial coordination with the Master Gardener program has identified multiple benefits and efficiencies that would result from combining efforts with the Tacoma-Pierce County NYC program including:
  1) Providing a group of free volunteers who are a trusted and expert source of gardening tips and information to the target audience.
  2) Providing gardeners with a resource where they can get personalized information that addresses their yard care questions instead of learning the dozens of best management practices recommended by the “5 Steps of Natural Yard Care.”
  3) Infusing new resources and funding to help build up and promote the existing Master Gardener program.
  4) Training Pierce County Master Gardeners to offer solutions that align with the 5 Steps of Natural Yard Care and effectively protect water quality.

Strengths, Weaknesses, Opportunities, Threats (SWOT) Assessment

A Strengths, Weaknesses, Opportunities, Threats (SWOT) Assessment was conducted by the Project Team to identify the known and potential positive and negative factors influencing the Natural Yard Care project (Table 1). This assessment explored the internal and external factors that impact strategic planning and decision-making. The SWOT will be utilized to develop a comprehensive social marketing plan.
Table 1. SWOT Natural Yard Care Project

**Internal Strengths**
- Master gardeners volunteer resources
- Envirowise display
- Staff time TPCHD, PC, Tacoma, WSU
- Hortalcsense website w/ resources
- Grow smart, grow safe phone app free
- Graphic design resources
- Survey/evaluation resource at TPCHD (Assessment office)
- Existing outreach materials
- Budget to implement, grant funds
- STORM resources/network evaluation of NYC approach
- Existing research: pesticide studies, water quality expertise, audience research, ethnographic research, NYC evaluation
- MG clinic – experts and library of resources
-- Success with family fun activities at elementary schools, Foss, Family garden fest
- Marketing expertise at TPCHD
- MG Demo gardens: WSU Puyallup, Sehmel Homestead
- Tacoma parent research office – connections to parents and daycares
- Pierce County environmental health indicators project
- MGs are highly trusted by homeowners
- Equity and Empowerment initiative in Tacoma

**External Opportunities**
- Nurseries interested
- stream teams
- PECO Net partners
- Gardening clubs
- Greater interest in community gardens and vegetable gardening
- Alternatives more available
- Seattle Tilth pesticide labeling pilot at McLendon’s
- Young family related resources
- Connection to protection of children and pets for “parents”
- Salmon and Puget Sound culture of awareness/concern
- Puget Sound Starts Here website
- Naturalyardcare.org website
- New home buyers and selling house more interested in yard care

**Internal Weaknesses**
- Poor workshop attendance
- Some conflicts existing between Solid Waste and Surface Water depts.
  - In Tacoma and PC
- Only 25% of Walt’s time dedicated, 10% Tiffany’s time, 10%
  - Shawna, limited capacity of MG coordinator
- Public schools, parks, city and county staff not using IPM
- People are suspicious of government intervention/instruction

**External Threats**
- Existing perception of whether yard care impacts environment/water quality
- Pesticide marketing "Scott’s", plants that don’t grow well
- Very low priority for concern for target audience
- Those looking for “quick-fix” solutions to yard care woes
- Difficult to connect chemicals to water quality impacts, language
  difficulty to understand (labels, advertising, etc.)
- Instructions are tiny and difficult to understand, promotes heavier use by default
- Health and caring about environment are motivators, less financial incentive – cheaper and less time-intensive than alternatives

© Alan Chapman 2005-09. Free PDF version of this tool and information about SWOT analysis methods are available at www.businessballs.com/swotanalysisfreetemplate.htm. This is a free resource from www.businessballs.com which contains lots more useful tools, diagrams and materials. Not to be sold or published.

Revisiting Target Audience Selection and Behavior Change Goals

Redefining the Target Audience
Based on the recommendations from the existing program evaluation by FRAUSE (Appendix B), the target audience of the NYC program moving forward will be narrowed to focus on everyone who:

- Has a yard.
- Owns and lives in a single-family home.
- Is involved in yard care or yard care decision-making, i.e., “do-it-yourselfers.”
So the updated target audience description is:

*Every single-family homeowner in Tacoma and unincorporated Pierce County who is involved in the care of the home’s yard and who does not use the services of an external landscaper.*

Although this general audience segment description is helpful, it lacks valuable demographic details that help with developing successful marketing tactics. Moving forward, through surveying Master Gardener program users, we will collect that demographic profile information such as age, gender, income, presence of children or pets in the home, and age of home. As specific sub-strategies are developed, they will have a more refined target audience.

**Behavior Change Goals and Objectives**

The overall goal of the City and County’s Natural Yard Care outreach is described in the Phase I NPDES Stormwater Permit:

*To affect behavior change in residents, to reduce polluted stormwater and protect downstream water quality for the following activities:*

- *Use more Natural Yard Care techniques protective of water quality*
- *Proper use and storage of pesticides and fertilizers*

The following are examples of specific, measurable, audience-directed, realistic, and time-bound (S.M.A.R.T.) objectives for the target audience of the Master Gardener Natural Yard Care Program:

1) Increase number of annual Master Gardener “home clinic” engagements via phone and email by 25% following six months of promoting the Master Gardener home clinic services.

2) 75% of residents receiving Master Gardener advice through home clinic services implement that advice within the next year.

**Existing Audience Research**

To help identify known audience barriers, benefits and the competition for reaching the NYC outreach objectives; this report includes the following relevant findings based on recent focus groups, interviews and surveys in the Puget Sound region. These sources supplement the workshop participant research summarized above.
Defining the Environmental Problem
Studies by the Washington State Department of Ecology indicate that copper and herbicides are significant toxic contaminants reaching Puget Sound through stormwater runoff. As stormwater picks up these and other products off of lawns, gardens, golf courses, and other managed plantings they are carried into aquatic environments, slowly accumulating in the sediments, entering the food web, harming aquatic life and affecting water quality.

Prevalence and Magnitude of the Problem
Washington State Department of Ecology in a recent toxic loading study estimates that 33-80 metric tons of copper enter the Puget Sound basin every year, a third of which is believed to come from pesticide use on lawns and gardens. Meanwhile the same study found that a little more than half a ton of herbicides from crops and golf courses are also reaching the sound.

Key Findings on Prevalence of Yard Chemical Use
Yard chemical use is a widespread practice in the Puget Sound Region. A large portion of the population uses herbicides, pesticides, and fungicides, sometimes multiple times a year.

- A 2009 survey shows that 56% of Pierce County residents surveyed use chemical fertilizers and 62% use Weed and Feed or other herbicides.
- A 2013 survey showed that about three fifths of people (62%) reported that they never or seldom used weed and feed on their lawn nor used chemical products to kill moss, weeds or other plants (60%). Over three quarters (76%) reported that they never or seldom used chemical products to control or kill insects in their yard and over half (52%) reported that they never or seldom used fertilizers on their lawn or garden.
- About three fifths (61%) reported that they always or usually planted or kept native plants on their property and two thirds (67%) always or usually pulled weeds by hand or used tools.
- According to a report published by Seattle Tilth there are many yard care products available that do not pollute stormwater or harm aquatic fauna.
- As shown in Figure 9 below, according to this 2014 survey approximately 50% of respondents in each county used pesticides at least once per year.
- Pesticide use in Pierce and Thurston County is more prevalent than in any other county.

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5 Seattle Tilth Pesticide Report
6 Washington State Department of Agriculture, Non-Agricultural Pesticide Use in Puget Sound Counties, April 2014, Publication # AGR PUB 103-409
Key Findings on Values Underlying Yard Care Practices

According to ethnographers, homeowners highly value the opinions and judgments of their neighbors and look to them for approval about the aesthetic of their lawn\(^7\). This sense of responsibility for maintaining the “look” of the neighborhood for the sake of their collective property values is deeply felt. Many homeowners with children and pets also value their lawn as a place for them to play and as a utopian escape from the stresses of modern life. Thus the lawn takes on many symbolic as well as practical meanings.

As a result there is an opportunity to position NYC as a means to maintain and enhance the yard as a place of escape and relaxation. A focus on ensuring a safe and healthy place to enjoy the outdoors with family and friends would be a productive angle from which to promote the natural yard care agenda\(^8\). Some messages such as suggestions to reduce the size of grassy areas should be approached with caution as the desire to have a large lawn free of weeds is a deeply held ideal to many people.

Key Findings on Public Perception of Environmental Problem

- While most citizens are unaware that pesticides and fertilizers pose a risk to regional water quality, many do believe that there is some risk.
- A 2009 survey of residents in Pierce County cities found that many residents believe stormwater runoff has a “significant harmful effect” on local water quality. Pesticides

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\(^7\) Ethnographic Insight Inc., *Homeowner Lawn and Garden Care: Ethnographic Research*, (City of Olympia, 2009)

\(^8\) Frause, *Natural Yard Care Program: Focus Groups Summary Report*, (Tacoma-Pierce County Health Department 2014)
and fertilizers from neighborhoods were seen as a significant source of water pollution by 43% of the respondents. Many people are aware that there may be health risks associated with the use of chemical lawn care products.

**Key Findings on Public Perception about Information Sources**
Participants were asked whom they would trust to give them advice about yard care. Many participants trusted Washington State University (WSU) Master Gardeners, nurseries and the experts who work there, gardening media figures (such as Ciscoe Morris, Marianne Binetti, Tim Hill), and family, friends and neighbors whose yards look good. Many were not confident in big box store sales associates or those who actually make the yard care products.

Ethnographers discovered that there was a great mistrust of perceived political posturing by those encouraging natural lawn care practices. Some people feel that there is an important divide between pragmatism and political radicalism and that efforts to encourage organic and natural lawn care practices are veiled attempts to politicize the lawn and push a radical liberal agenda.

**Key Findings on using natural lawn care methods and products**
- The Puget Sound Partnership focus group results showed that people currently feel that organic and NYC products are more expensive, harder to find, and not as effective as their chemical counterparts.
- When asked what they would do if chemicals were banned in three months the participants were noticeably more motivated to look for natural alternatives and some even expressed relief that they would no longer have the cultural expectation of a perfect, green, weed free lawn.
- Most people are unfamiliar with the concept of rain gardens (only 35% have heard of it) but are more familiar with natural yard care (66%).
- People with small lots have a tendency to use more yard chemicals and water more than people with large lots.

**2014 – Audience Focus Group Study**
In addition to the audience evaluation described above, the project team also sponsored a focus group study in 2014 to more specifically characterize the audiences in Tacoma and Pierce County (Appendix C). The focus groups included families with children, singles with pets, and baby boomers with a mix of genders, ages ranging between 25 and 65, and various ethnicities. The following findings and opportunities were determined from discussions with these focus groups:

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9 Stormwater Runoff: Pierce County Public Attitudes, Awareness, and Behavior (Pierce County, WA, 2009)
10 Puget Sound Partnership, Yard Care and Pesticide Use Focus Group, 2013
• **Findings:** People don’t like weeds (including blackberries and moss), various rodents and small animals, and unwanted insects in their yards.  
**Opportunities:** You may position NYC as a means of enhancing the yard as a place of refuge and relaxation. This might include providing advice and tips on safe healthy ways to address perceived problems (insects, weeds, rodents) while educating them about the benefits of many insects and animals.

• **Findings:** Families and singles with pets put a high priority on having a “perfect yard” which meant a soft green lawn with flowers and shrubs. Baby boomers were not as concerned about maintaining a “perfect” green lawn. They had other priorities.  
**Opportunities:** Reducing lawn size or accepting imperfections may be inconceivable to some, and small steps in this direction are recommended.

• **Findings:** Yard maintenance is sometimes considered a source of collective enjoyment when done with members of the family, but some tasks like weeding and mowing are considered repetitive and annoying.

• **Findings:** Fertilizers, pesticides and other yard care products such as weed ‘n feed are purchased by those who do the work, and often purchased after conducting online research to assess effectiveness. Effectiveness is more of a concern than health impacts.  
**Opportunities:** It’s important to further educate people on NYC methods that can be equally effective as chemical solutions but are often slower acting. Focus on some of the negative impacts of chemicals at a personal level such as obnoxious odors, health issues related to exposure, etc.

• **Findings:** Homeowners were interested in learning about adapted plants and grass varieties and landscape design. Frequently used sources for this information include the Internet, friends, and nursery sales people. Several people had low opinions of the knowledge of sales clerks at big box stores like Home Depot and Lowe’s. Workshops seemed desirable if they were offered free and at convenient times and locations and had speakers with solid credentials. Enthusiasm was expressed for hands-on activities and opportunities to bring something from their own yards for speaker to provide advice on.

• **Findings:** Mailings and marketing materials are more likely to be read if they look personally addressed, not just to “resident” and are colorful photos with plants and garden scenes.  
**Opportunities:** Print materials that use yard and garden photos seem to appeal to a broader audience. Written copy that focuses on key benefits (free, interesting topics, prizes or gifts) will also ensure people read marketing materials.
**Audience Barriers and Motivators**

Based on professional experience, the project team brainstormed an additional list of possible barriers and motivators for residents to using NYC solutions recommended by Master Gardeners.

The following audience barriers were identified:

- Limited Master Gardeners (MG) clinic hours and locations
- No MG direct marketing
- No Internet
- Internet competition
- Sometimes difficult to find NYC products at convenient retail locations
- Some suggested NYC techniques seem like too much work
- Ensure safety of products they are using
- People are nervous about approaching a Master Gardener
- Unknown level of effectiveness or perception that organic methods are less effective than their chemical counterparts
- More time and labor intensive than chemical application
- Natural products work more slowly than chemical products, possibly leading to perceived ineffectiveness
- Lack of awareness of possible effective organic and NYC alternatives and products
- Perception that organic products are more expensive than chemicals
- Perception that yard care chemicals are environmentally benign
- Perception that yard care chemicals do not pose a health risk to vulnerable populations (children, pets)
- Perception that those encouraging natural yard care methods are pushing a radical political agenda

The following motivators were identified:

- Personalized advice; not overwhelming like Internet advice
- No more trial and error, less steps to a solution
- Research based, sound solutions that will work
- Free access to WSU plant lab if Master Gardeners can’t diagnose
- Master Gardener children’s programs during summer months
- NYC products conveniently located in some retail stores
- Awareness of health risks (especially to children and dogs) to using chemical based lawn care products

Based on the potential audience preconceptions listed above, a list of messages that may sway audiences toward choosing more natural gardening solutions was developed:

- Stories of institutions or organizations such as golf courses, city/county buildings, and parks had stopped using chemical lawn care products.
• What are the alternatives and where can they find them?
• Safer alternatives work just as well as the chemical products and are as quick and easy to use.
• What have other consumers said about natural products and their effectiveness (consumer reviews of products)?
• More information on harmful effects, e.g., to children, pets, animals, waterways and the environment.
• Share information about the “environmentally friendly” scale on products, which would help consumers compare product safety (like the Grow Smart Grow Safe guide).
• Recipes to make safer alternatives themselves (e.g., using products they already have at home such as vinegar).
• Promoting retailer discounts on organic gardening products through social media outlets.

New Strategy Recommendations - Support the WSU Pierce County Master Gardener Program

According to multiple regional surveys the WSU Master Gardener Program has developed a strong reputation in the region for expert knowledge about gardening. According to one survey 27% of respondents sought out Master Gardeners to answer questions about their garden problems, meanwhile online sources where utilized by 29% of the respondents\textsuperscript{11}. Master Gardeners were also identified as a trusted source of information in the FRAUSE Focus Group Study (Appendix C). This indicates that the advice of Master Gardeners is highly valued and is at least as popular as online sources of information. Therefore, we recommend that the NYC program work to support the efforts of the local Master Gardeners to meet program goals.

Strategy 1: Use the NYC program resources to promote the Master Gardener program. Encourage homeowners to “ask a Master Gardener” when seeking out solutions to gardening and yard care problems.

Master Gardener Focus Group

Different ways to help promote the Master Gardener program were discussed during a Master Gardener Focus Group in October 2015 with eight Pierce County Master Gardeners. The Master Gardeners in the group had various suggestions listed in Appendix D. Following the Master Gardener Focus Group, the project team put together a proposed promotion strategy to use the Master Gardener Program as the trusted messenger based on the audience research

and existing program evaluation results discussed above. The strategy includes sharing the following key messages through agency newsletters and social media outlets:

- NYC methods offer a safe alternative to potentially harmful chemical yard care products
- You can still have a beautiful yard without using chemicals
- Master Gardeners are an excellent source of individualized yard care information
- Yard chemicals are often overused and can impact both human and environmental health.

Appendix E includes a creative brief outlining the strategy. Appendix G includes additional marketing and promotion ideas developed by the project team.

**Strategy 2: Create tools to overcome the barriers experienced by prospective NYC users for common gardening and yard care problems.**

**Master Gardener Survey and Focus Group**

As a first step to research potential tools, the project team conducted an email survey of a small number of Master Gardeners to identify the most frequently asked question that they receive for which tools might be developed. They included:

- **Planting**
  - What grass seed should I plant?
  - How do I amend my soil?
  - How do I keep my lawn green?
  - How much and how often should I water my lawn?

- **Weed Control**
  - Moss
  - Blackberry
  - Annual weeds in lawns and driveways

- **Pest Control**
  - Cranefly
  - Aphids
  - Slugs
  - Apple Maggot

- **Disease Control**
  - Red Thread and other fungal infections

Not surprisingly, their anecdotal conclusions are supported by a 2014 Washington State Department of Agriculture survey whose results are shown in Figure 26.
The follow-up Master Gardener Focus Group brainstormed possible tools that they could provide to homeowners to address the issues. The discussion results are listed in Appendix D and include a broad variety of types of assistance including lawnmower stickers with lawn care tips, bags of slow release amendment for giveaways with a coupon to purchase, how-to video, certified natural lawn yard signs, pH soil test kits, and seed packets for sacrificial crops to lure pests away.

**Proposed Evaluation Plan**

The NYC team will be implementing multiple strategies outlined above to effect behavior change among residents. The data collection strategy that will be used to assess behavior change as a result of the program includes collecting baseline data on number of Master Gardener engagements at the “home clinic” via phone and email contacts in 2016 as compared to numbers from 2014 and 2015. Most promotions will focus on “home clinic” engagements via phone and email, so an increase in those types of engagements will show results of promotion activities. We will also measure Master Gardener website analytics and social media analytics to evaluate any increases in engagements on social media, especially likes, shares and mentions on Facebook. These evaluation strategies will be implemented over time as funding and resources become available for the program. Evaluation methods may be revised if strategies change over time. More details of the Evaluation Plan are included in Appendix F.
Appendix A – Ten Step Social Marketing Process

The Natural Yard Care (NYC) project will follow Nancy Lee’s ten steps for social marketing (please see Lee’s book for detailed information about the approach.) The project steps are:

1. **Describe background information, clear purpose and determine focus.** Project members will write preliminary Situation Analysis (this document) based on our own information, literature review, and leveraging information already prepared for the NYC project.

2. **Strengths, Weaknesses, Opportunities and Threats (SWOT).** As part of the Situation Analysis development, the project team will brainstorm the strengths, weaknesses, opportunities and threats of existing conditions.

3. **Select a target audience.** The project members will select a target audience. The audience may be defined as homeowners who maintain their own lawns. The audience may be refined further as more is learned about barriers and benefits.

4. **Determine Behavior Objective and Goals.** The behavior objective is to “use natural yard care methods”. Information from previous projects and from steps and research on the motivators and barriers for the target group will also inform the objective.

5. **Identify audience barriers, benefits and the competition.** Project members will identify preliminary barriers, benefits and competition using literature research, interviews with experts, and focus group research.

6. **Write a positioning statement.** The positioning statement will be developed based on previous steps.

7. **Develop the product platform: Core, Actual, and Augmented.** Applying a marketing mix of the 4P’s: product, price, place and promotion. In this lexicon, the *product* for this project is “Natural Yard Care advice” and the *augmented product* is a Yard Care Coach visit. The project team will determine detailed specifics of these strategies after reviewing the results of the focus group, formative research and recommendations from a contracted consultant.

8. **Outline a proposed evaluation plan.** The project team will design a method to ensure follow-up after application of outreach strategies and will implement an evaluation plan to determine if control and other target groups have implemented Master Gardener advice, redeemed TAGRO coupons or taken other actions.

9. **Establish a Budget.** A specific budget for implementation will be created after Marketing Strategy (below) and Evaluation Plan are completed.

10. **Complete an Implementation plan (Marketing Strategy).** The project team will develop an implementation plan for the pilot as well as the full roll-out project.
Appendix B – FRAUSE Program Assessment Report
Tacoma-Pierce County Health Department
Natural Yard Care Program

- Evaluation of Existing Program
- Needs Assessment
- Strategic Plan

June 30, 2013
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Evaluation of Existing Program

Purpose

This evaluation of the natural yard care program managed and implemented by Tacoma-Pierce County Health Department is the first step in developing a strategic social marketing plan designed to improve the program’s reach and behavior change capabilities. The findings presented here were derived from thorough examination of files and documents provided by TPCHP, encompassing natural yard care program implementation from 2007 through 2012.

Program Scope

Tacoma-Pierce County Health Department has planned and implemented natural yard care workshops for a number of jurisdictions since 2007. To a great extent, the workshop model used by TPCHD was originally based on the natural yard care program developed by King County in 2001. This program was built on the concept of community-based social marketing, which seeks to achieve behavior change among people within specifically defined communities. As developed by King County, the natural yard care workshop program targets neighborhoods that demonstrate self-identity: the people who live in these communities see themselves as working and living together, individual parts of a greater whole. The approach emphasizes a community aspect, with neighborhoods referred to by name and residents addressed as “neighbor.”

While some of the natural yard care programs implemented by TPCHD appear to have targeted specific communities through direct mail, workshops seem to have been marketed as well to the entire city in which a community was located. This can detract from the personal, one-on-one feel that is very evident in the most successful natural yard care programs.

The chart on the following page shows TPCHD’s management of natural yard care workshop programs in various cities.
<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<tbody>
<tr>
<td>Bonney Lake</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Buckley</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>DuPont</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fife/Milton/Edgewood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gig Harbor</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Graham*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key Center*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key Peninsula*</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lakewood</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Puyallup</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Hill*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanaway/Parkland*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tacoma</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>University Place</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total jurisdictions</td>
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<td>6</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

* Unincorporated
Workshop Attendance

Access to workshop attendance data was somewhat inconsistent for any municipality except Tacoma. The information presented here therefore examines Tacoma alone, then looks at a subset of jurisdictions for which information was available.

A look at Tacoma’s attendance from 2008 through 2012 shows a moderate start in 2008, significant decline in 2009, a modest recovery in 2010, then declining numbers in 2011 and 2012. Over the five-year period, Tacoma has averaged 19.6 attendees at each workshop. It should be noted that in 2012, for the first time Tacoma offered a series of natural yard care workshops on Saturday mornings (the series was attended by 10 participants at each of the two sessions).
Attendance data for other jurisdictions was primarily available in 2008 (Fife/Milton/Edgewood, Gig Harbor, Lakewood, South Hill, Spanaway), with information for single jurisdictions in 2009 (University Place) and 2012 (Gig Harbor). This limited data reveals moderate, albeit declining, attendance.

![Other Jurisdictions Workshop Attendance](image)

### Workshop Locations

Almost without exception, natural yard care workshops held in Pierce County take place in public buildings. City hall is frequently used. Other venues have included council chambers, multi-purpose buildings, community centers, Tacoma Nature Center, and Point Defiance Zoo. The dynamics of choosing a location to host natural yard care workshops are two-fold.

First, the location will be named in every marketing effort (direct mail, online, calendar listings, etc.). Presenting a natural yard care workshop taking place “at Gig Harbor city hall” immediately communicates a business-like meeting led by government representatives. Second, the environment itself is impersonal and will convey a sense of formality when workshop attendees walk in. Both of these are at odds with the target audience (homeowners) and subject matter (taking care of one’s yard).

### Workshop Speakers

Most of the workshops feature speakers who are affiliated with a government agency: 71 percent of the speakers used between 2008 and 2012 fit this description. The remaining 29 percent come from the private sector (although several of them were previously employed by a government agency).

Undoubtedly each speaker has considerable knowledge of his/her natural yard care topic. Because many people who work in environmental fields within the government tend to be focused on protecting the environment, messages delivered by these workshop speakers may focus on environmental protection. Such interests do not always align with individuals who are more motivated to adopt behaviors that result in a more attractive yard, less work, or lower maintenance cost.
Marketing

Marketing the various natural yard care workshop series has been done using a variety of tactics. These include direct mail, inserting flyers in utility bill mailers, advertising in local newspapers, placing articles in city- or county-based newsletters, posting information on city and county websites, distributing flyers at events, posting flyers in public locations, listing in event calendars, door-to-door canvassing, and other methods.

Marketing the workshops is critical to the “recruitment” of attendees – that is, ensuring people sign up for and actually participate in at least one workshop. The first step of the recruitment process is having people register. TPCHD has used a standard registration process, asking people who are interested to call or email to register.

The second step of recruitment is ensuring actual attendance at the workshops. It’s unclear if any formal confirmation of registration has been implemented, such as a mailed confirmation postcard sent immediately after a person signs up. There is no evidence that reminder emails – generally sent four or five days before each workshop – were used to encourage attendance. It does appear that reminder phone calls (placed one to two days prior to a workshop) did occur in at least some of the jurisdictions.

Collateral Materials

Written Copy
The messaging approach used by TPCHD in collateral materials (print and digital) primarily focuses on natural yard care’s positive environmental impact. Here are some examples of headlines and opening line copy:

<table>
<thead>
<tr>
<th>SPEAKER</th>
<th>G/P</th>
<th>SPEAKER</th>
<th>G/P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bary, Andy</td>
<td>G</td>
<td>Leisle, Stephanie</td>
<td>G</td>
</tr>
<tr>
<td>Benedict, Chris</td>
<td>G</td>
<td>Lenderman, Beth</td>
<td>G</td>
</tr>
<tr>
<td>Bressette, Dana</td>
<td>P</td>
<td>Martini, Nicole</td>
<td>G</td>
</tr>
<tr>
<td>Butler, Greg</td>
<td>P</td>
<td>Misley, Ryan</td>
<td>G</td>
</tr>
<tr>
<td>Chalker-Scott, Dr. Linda</td>
<td>G</td>
<td>Neal, Letticia</td>
<td>G</td>
</tr>
<tr>
<td>Cogger, Dr. Craig</td>
<td>G</td>
<td>Pfeiffer, Christina</td>
<td>P</td>
</tr>
<tr>
<td>Dieckmann, Bob</td>
<td>G</td>
<td>Rabourn, Greg</td>
<td>G</td>
</tr>
<tr>
<td>Dutton, Travis</td>
<td>G</td>
<td>Rinehart, Geoff</td>
<td>G</td>
</tr>
<tr>
<td>Hook, EJ</td>
<td>P</td>
<td>Serenity Garden Design</td>
<td>P</td>
</tr>
<tr>
<td>Hume, Ed</td>
<td>P</td>
<td>Smith, Diana</td>
<td>G</td>
</tr>
<tr>
<td>Inch, John</td>
<td>G</td>
<td>Thurston, Anna</td>
<td>G</td>
</tr>
<tr>
<td>Jones, Byron</td>
<td>G</td>
<td>Zappler, Liesl</td>
<td>P</td>
</tr>
</tbody>
</table>

G=government, P=private
• Informational workshops for residents to learn about natural yard care practices and the role our yards play in preserving our environment.
• Learn about environmentally friendly yard and garden maintenance in a series of fun and informative workshops.
• Learn how to save money and care for your lawn and garden using environmental maintenance practices.
• Natural yard care keeps toxins out of Puget Sound.
• Our yards are great spaces for relaxing. But in taking care of them, we often use water inefficiently, produce a lot of waste and overuse chemicals that are bad for the environment and our families’ health.
• Come learn about environmentally friendly yard and garden maintenance.

Occasionally, written copy includes mentions of other reasons people might be interested in attending workshops:

• Would you like to learn how to save money, save time, and have a beautiful landscape?
• Bring your friends and have some fun with natural yard care

Written copy also emphasizes the involvement of various government agencies, and collateral materials almost always feature at least two agency logos (often many more). Workshop names tend to be very straightforward.

**Design**
There is a great deal of variety in the visual/graphic design approaches used for various printed pieces, with designs changing each year and to some extent for each jurisdiction. There does not appear to have been any effort to build a recognizable brand for the natural yard care program by using the same font and/or colors for the term “Natural Yard Care,” or by developing a consistent design direction.

Images tend to be illustrations and/or clip art. Photos are rarely used. Some of the illustrations convey a commercial or even industrial feel, such as the yard blueprint which appears on a number of direct mail pieces. Most of the materials lack a feeling of home, family, yard. The “Your neighbor is hosting a natural yard care garden party...” postcard does the best job of feeling residential and friendly, with its bright colors and relatively short written copy. Some of the images are confusing or lack any recognizable connection to the written copy, including the globe featured on the 2012 Family Fun Nights flyer and the rodeo/cowboy theme used for a different flyer for this same event.

Many of the printed pieces are copy-heavy with little white space; both of these characteristics can discourage target audience members from reading the materials. The agency logos present on most pieces are quite large, sometimes disproportionately so.
Evaluation

Assessment of behavior change attributable to natural yard care workshop attendance appears to have been implemented in 2011 across several jurisdictions. A survey was conducted prior to the first workshop, and a follow-up survey took place approximately six months after the final workshop. The data is considered unreliable because (1) a very small number of participants responded to the follow-up survey (approximately 23 percent), and (2) questions asked in the pre- and post-test surveys were not comparable.
Needs Assessment

Secondary Research

Secondary research – a review of existing studies on topics related to natural yard care – was limited to findings in the Sound Behavior Index conducted by the Puget Sound Partnership in 2012, and to a few data points in Puget Sound Starts Here campaign measurement conducted in 2011 by the STORM consortium. Other research works were investigated, including the Environmental Behavior Index conducted in 2008 and 2011 by King County, and the General Public Opinion Survey completed by the Puget Sound Partnership in 2012. None of these projects included over-sampling in Pierce County.

Behavior and Beliefs

Information gleaned from the two relevant studies dealt primarily with existing behaviors; one question probed respondent beliefs. The richest source of natural yard care-related data came from the Sound Behavior Index. As is apparent from the chart below, Pierce County residents under-perform when it comes to never using fertilizer and pesticide products in their yards and gardens. The Sound Behavior Index did not explore what might influence respondents to change these behaviors.

<table>
<thead>
<tr>
<th></th>
<th>Pierce County</th>
<th>12-County Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never use weed and feed on lawn</td>
<td>36%</td>
<td>55%</td>
</tr>
<tr>
<td>Never use chemical products to control or kill moss, weeds, other plants in yard</td>
<td>36%</td>
<td>48%</td>
</tr>
<tr>
<td>Never use chemical products to control or kill insects in yard</td>
<td>51%</td>
<td>60%</td>
</tr>
<tr>
<td>Never use fertilizers on lawn or garden</td>
<td>24%</td>
<td>37%</td>
</tr>
</tbody>
</table>

A survey designed to measure impact of the Puget Sound Starts Here campaign included a few similar questions related to the use of yard products. Pierce County respondents were in agreement with others in their belief about how pesticides and fertilizers impact water quality. Their behavior also aligned in terms of never using chemical yard products. Comparison of these data with information collected in the Sound Behavior Index is difficult because the questions were phrased differently. In addition, only seven counties were over-sampled during PSSH measurement (including King, Kitsap, Pierce, Skagit, Snohomish, Thurston and Whatcom; excluding Clallam, Eastern Jefferson, Mason, Island and San Juan – all of which were included in the Sound Behavior Index).

<table>
<thead>
<tr>
<th></th>
<th>Pierce County</th>
<th>7-County Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never use chemical fertilizers, weed killers or pesticides on lawn or garden</td>
<td>37%</td>
<td>40%</td>
</tr>
<tr>
<td>Run-off from pesticides and fertilizers used in the yard is a significant source of pollution in Puget Sound</td>
<td>43%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Research that more thoroughly explores current yard care behaviors and delves into the perceived benefits and barriers to these behaviors will be a valuable resource for enhancement of TPCHD’s natural yard care program. The focus group methodology is particularly appropriate for generating revealing discussions about why people do and do not adopt natural yard care practices.
Target Audience Descriptions

It does not appear that TPCHD has developed a formal description of target audiences for the natural yard care program. While there may be a general understanding of the characteristics of this audience, a written profile will provide clear guidance and may help eliminate some of the inconsistencies noted in messaging and collateral material design. A detailed outline of the audience identification process is provided on page 12.

Partnership Opportunities

Throughout the history of the natural yard care program in Pierce County there is evidence of much collaboration between TPCHD and other public agencies. This is excellent and these efforts should continue.

There is missed opportunity for partnerships within the private sector. Working with nurseries and garden stores can be very successful in expanding the reach of the natural yard care program. Many of these businesses will push out information about upcoming workshops to their email customer lists. Some of them may have facilities capable of hosting the evening workshops. Less obvious potential partners include child and/or dog-related businesses, organizers of garden tours, and others.
Strategic Plan

Introduction

The strategic plan that follows provides a broad overhaul of the existing natural yard care program implemented by TPCHD. While the current framework is solid, there are many elements of the program’s built-out structure that can be made more robust. Basic principles of social marketing – such as audience identification and segmenting, barriers and benefits analysis, consistent messaging, evaluation metrics and more – have been overlooked. The sense of friendliness and community that makes natural yard care workshops appealing is absent. Workshop content is appropriate, but it is being marketed in a dry, overly-technical manner. The strategic plan addresses these and other issues.

The plan is presented as a series of recommendations, each of which is followed by implementation tactics. Tactics are based on proven best practices.

Goal

This strategic plan is designed to ramp up the effectiveness of the natural yard care workshops implemented by Tacoma-Pierce County Health Department by

- increasing the number of people who participate,
- enhancing the behavior change capabilities of the workshops, and
- improving the methods used to measure program outcomes.
Audience

In the broadest terms, TPCHD’s audience for natural yard care workshops is everyone in a designated market who has a yard. To narrow the focus and enable more effective targeting, the following screening criteria can be applied:

Everyone who...
- ...has a yard,
- ...owns and lives in a single-family home, and
- ...is involved in yard care or yard care decision-making.

A final defining criterion for target audience members is “do-it-yourselfers.” Past experience with homeowners who hire out yard care services has been very unproductive. This group tends to be in a higher income bracket and seems disinterested in attending natural yard care workshops. They may be a viable audience for a different natural yard care strategy, but they are not a good fit for the existing workshop model.

The screening/segmenting process results in the following target audience description:

Every single-family homeowner who is involved in care of the home’s yard and who does not use the services of an external landscaper.

**Building Workshop Attendee Profiles**

The broad natural yard care target audience description lacks valuable details. Collecting demographic information about the people who actually attend natural yard care workshops will help TPCHD create and implement successful marketing tactics. Capturing this type of data leads to a natural yard care workshop attendee profile. The profile includes information such as age, gender, income, presence of children and/or pets in the home, age of home, etc. Workshop attendee profiles should be developed for any jurisdiction in which TPCHD implements workshops each year. A short survey form is given to and collected from every workshop participant (taking care to have each participant complete just one such form). Data is entered into Survey Money for ease of tabulation.
City-Wide or Neighborhood-Specific

Many times a natural yard care workshop program is implemented on a city-wide basis, with marketing efforts directed toward all residents within a large geographic area. While this strategy is understandable – it seems logical that inviting everyone will lead to more participation – it is at odds with the community-based approach used to develop the workshop model. The broad market method rarely produces positive results; in addition to cities in Pierce County, other jurisdictions (including Federal Way and Redmond) have gone down the same path with a notable lack of success.

The very word “workshop” implies a small, intimate scale. Targeting specific neighborhoods reinforces the friendly feel of the natural yard care program. Addressing direct mail materials to “South Hill Neighbor” instead of “Resident” further supports the sense of personal invitation. When participants arrive at workshops and see the familiar faces of neighbors, the program has come full circle and planted the seeds of neighbors working together toward a common goal.

For these reasons, the current natural yard care workshop model is most effective when implemented in specific neighborhoods and not on a city-wide basis. If a broader, faster approach is desired, a new strategy should be developed.

Choosing a Neighborhood

Selecting a neighborhood is an all-important first step in implementing a successful natural yard care program. Accordingly, the choice should not be arbitrary but instead demands careful thought and consideration of a number of factors. A hasty or poorly made choice increases the risk of low workshop turnout. This in turn leads to limited reach and fewer opportunities to promote desired behavior change.

**Step 1**

If water quality and/or reducing stormwater pollution are primary goals of the natural yard care program, the first step is to prioritize watersheds or bodies of water based on need. Need may be determined using categories of impairment, TMDL levels or other metrics. This process will help narrow the geographic areas where a natural yard care program can do some good.

**Step 2**

After one or more geographic areas have been pinpointed, the second step is to identify communities within the defined boundaries. A community may be a well-known, established neighborhood such as Tacoma’s Northeast area, or a more recently created district such as

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**RECOMMENDATION #2**

Conduct natural yard care workshops in small communities or neighborhoods.
Pierce County’s Roy-McKenna area. Having a minimum of 2,000 residents will help ensure reasonable natural yard care workshop registration of 200+. Smaller neighborhoods with similar demographic and psychographic make-up can be combined to achieve adequate population levels.

A community’s ethnic diversity should be explored as it pertains to speaking and understanding English. If a large proportion of residents are likely to have limited English proficiency, steps may be required to produce marketing materials in other languages and/or have translators on hand during workshops.

**Step 3**

“Windshield tours” of potential communities is Step 3. A windshield tour is a comprehensive drive around of the neighborhood being considered, for purposes of visual inspection. A tour should take at least one hour to complete and is best conducted by two people: one to drive and the other to take notes. The following characteristics should be noted:

- **Average size of lots.** Very large lots often indicate upper income homeowners who are typically not as responsive to natural yard care workshops. Very small lots often cause homeowners to be dismissive of natural yard care simply because yard space is so tiny.

- **Appearance of yards.** Immaculately manicured shrubs and beds along with emerald green lawns are a common sign of yards maintained by landscape firms. These homeowners tend to be less interested in natural yard care techniques. Unkempt and overgrown yards generally signal homeowners for whom any kind of yard care is unimportant.

- **Evidence of children.** Visible bicycles and toys, children themselves and pets are generally positive findings. Adults with children living at home (and with pets) tend to respond well to natural yard care practices that protect the health and safety of family members.

- **Age of homes.** Brand new homes (less than two years old) frequently have lawns and trees and shrubs that are not yet established – and consequently, problems haven’t emerged. Homeowners in newly constructed homes are often quite happy with their yards and not interested (yet) in making changes.

- **Venue availability.** Schools, community centers, churches and other potential venues to hold workshops should be highly visible, in good repair and have plenty of free parking. Venues should be walked through, not simply driven by, to further determine their suitability. The best rooms will seat 100 to 150 participants, be carpeted for enhanced acoustics, and have adequate room darkening capabilities.
**Step 4**

To ensure the best decision is made in selecting a targeted neighborhood for natural yard care workshops, complete a table like the one presented below, compare the information collected for multiple neighborhoods, and make the choice.

<table>
<thead>
<tr>
<th>Neighborhood Name</th>
<th>Watershed/ TMDL Issue(s)</th>
<th>Population</th>
<th>Age Income</th>
<th>Occupation</th>
<th>Ethnicity</th>
<th>Lot Size</th>
<th>Yard Appearance</th>
<th>Children, Pets</th>
<th>Home Age</th>
<th>Venue Options</th>
</tr>
</thead>
</table>


Message Development

Maximizing the marketing efforts to publicize the natural yard care workshops and achieve high levels of attendance begins with developing clear, consistent key messages. Message development is based on understanding the needs and interests of the target audience and aligning those with the program’s goals. Although some data about workshop participants has been collected since the natural yard care program began being offered in Pierce County in 2008, it is not sufficient to create a reliable audience profile. Recommendation #1 addressed this.

Materials such as flyers and mailers created to market past natural yard care workshops in Pierce County feature mixed messages and a heavy focus on the jurisdictions funding said programs. Most items communicate the environmental benefits of natural yard care. Few, if any, convey messages that address the personal “what’s in it for me” question – the answers to which tend to motivate more people to adopt natural yard care practices. Message development must therefore begin with identifying the personal benefits an individual homeowner will experience through natural yard care. Past experience reveals that some of these benefits are

- a beautiful yard,
- neighbor/neighborhood approval and acceptance,
- a safe, healthy environment for kids and pets,
- less time required for yard maintenance, and
- less money spent replacing plants, shrubs, lawn, etc.

Creating a series of key messages will lead to greater recognition of what participants can expect from the natural yard care program. It also enables customization of messaging to target audience segments without losing the “speak with one voice” element. For instance, “less time required for yard maintenance” might be presented as a secondary message in a community with a high ratio of retired homeowners but as a top priority in a neighborhood populated by many busy, younger families.

Written Copy

Key messages provide the foundation for written copy designed to promote any natural yard care workshops implemented by TPCHD. This includes copy written for

- letters,
- flyers,
- postcards,
- posters,
There are many methods and tips for writing effective copy that delivers key messages and achieves the purpose of convincing readers to register for one or more natural yard care workshops. These include keeping copy brief, using a style and tone appropriate for the target audience, avoiding jargon and using language that is interesting and colorful. And because a certain number of people tend to react poorly to government-sponsored programs, it’s generally best to recognize any supporting agencies or jurisdictions by discreetly placing logos at the bottom of printed materials.

**Graphic Design of Printed Collateral Materials**

TPCHD has conducted natural yard care workshops for more than a dozen jurisdictions. Instead of developing a new design approach for printed collateral materials each year, creating an ongoing “look” for the program will help build a brand that becomes recognized by target audiences. This design will be most effective if it reflects the personality and idea of natural yard care: bright, colorful, energetic, uplifting, rewarding, fun. The design must also be appropriate for the broad target audience.

As with copywriting, good design is the result of experience, creativity and following basic rules. Creating a design that easily adapts to various uses (flyer, website, poster, etc.) is an important consideration. So is establishing a consistent color palette. To ensure the best results, use of a graphic designer with diverse skills and broad experience is recommended.
Multi-Touch Marketing

One of the advantages of fee-to-participate programs is a reduced “no show” rate: people tend to attend events or workshops when they’ve paid money in advance to do so. Because natural yard care workshops are free, a person may register without making a financial commitment. This may lead to a later decision to skip the workshops. It may also cause an individual to attach lower “mental priority” to the workshops, resulting in competing commitments being made or that person simply forgetting about the program altogether. (It should be noted that fee-to-participate programs face their own challenges, one of which is demonstrating value that justifies the cost.)

TPCHD will experience higher attendance at natural yard care workshops by employing multi-touch marketing. This concept is based on maintaining elevated awareness of the workshops through repeated communications with each person who registers.

1. A person registers for the series of natural yard care workshops by sending an email, registering online, or calling a designated phone number.
   - The person’s email, phone and street address are captured.

2. Same-day callbacks are made to everyone who registered without talking to a live person. All information is confirmed.

3. A postcard confirming registration is mailed within one day.
   - Information on the postcard is limited to confirmation language and dates, times and venue address for the workshops.

4. Two weeks before the first workshop, a printed flyer with descriptions of each workshop and speaker is mailed to each registrant.

5. Four business days before each workshop, a reminder email is sent to each registrant.
   - Copy is brief, tone is positive and anticipatory.

6. The day before each workshop, reminder phone calls are placed to each registrant.
   - Message is friendly and brief: date, time, location.

The process described above results in five “touches” on each person who signs up for natural yard care workshops. It is most effective when the timing is closely adhered to, as the point is to remind registrants of the upcoming sessions and build a sense of anticipation. When the timing is compressed – for instance, mailing confirmation cards a week after registration instead of a day, or sending reminder
emails two business days before each workshop instead of four – the touches can be perceived as annoying instead of helpful.

Workshop Venue

Holding workshops at city facilities such as a city hall or a meeting room located in a utilities office sends a clear “government sponsored” message. This is inconsistent with the community/neighborhood event feeling that is so unique to successful natural yard care programs. A government office may also be off-putting to people who are resistant to what they perceive as government involvement in their lives. The venue should not be a reason for someone to decide to skip attending the workshops.

Seek out venues that are familiar community locations. Schools and churches are usually good options. Government-owned facilities that are considered more neutral (libraries, community centers, etc.) can be suitable locations as well. Confirm that the selected venue has ample free parking.
Cultivating Exceptional Speakers

The roster of speakers TPCHD has built for the natural yard care workshops includes people from the private sector as well as those who work for various government agencies. While both categories may offer people of equal knowledge and expertise, featuring “E.J. Hook, grounds supervisor at Woodland Park Zoo” may be more positively perceived than “Geoff Rinehart from Tacoma-Pierce County Health Department.” How the target audience perceives a speaker will influence workshop registration and participation. This is an important consideration when selecting speakers.

The natural yard care workshops rely on speakers to convince attendees to try new yard care behaviors. Because of this, a speaker should never be chosen based solely on knowledge or an impressive curriculum vitae. In addition to subject matter expertise, the best speakers have at least a few of the following qualities.

- Genuine interest in the topic
- Storytelling ability
- Curiosity about new discoveries
- Personal enthusiasm for natural yard care
- A sense of humor
- Desire to engage one-on-one with participants
- Enjoyment of people

Sourcing and Training Speakers

The following is a proven process for finding a prospective speaker, and working with him (or her) to determine if his speaking capabilities are a good fit with the natural yard care workshops.

1. Attend garden shows, conduct online searches, visit local greenhouses, explore community college faculty lists, connect with garden clubs and other methods.

2. Request and review a written resume to determine education, training, and level of expertise.

3. Meet with a prospective speaker to talk about his/her approach to giving presentations, including what has worked well for past speaking engagements.

4. If possible, arrange to observe the prospect conducting a presentation.

5. Invite the prospect to observe a natural yard care presentation conducted by another speaker.

RECOMMENDATION #5

Recognize the influence speakers have on effective behavior change, and prioritize outstanding speaker performance.
6. Schedule the prospective speaker to conduct a pilot natural yard care workshop presentation.

7. Ask the prospect to provide an outline of his/her natural yard care presentation, with talking points; if PowerPoint will be used, ask to review the deck.

8. Observe the pilot presentation and discuss strengths and weaknesses with the speaker the following day.

9. Continue to monitor the next three to five presentations by the speaker, providing constructing feedback each time. Observe how workshop attendees respond to the speaker, and review completed workshop evaluation forms.

10. After three to five natural yard care presentations, decide whether or not to retain the speaker on roster.
Taking advantage of research opportunities will help TPCHD assess (1) the effectiveness of workshop content and workshop speakers, and (2) the level of behavior change achieved. While some efforts in both of these areas appear to have been made in the past, the methods used did not deliver meaningful findings. It’s also evident that little analysis took place of the data that was captured.

Evaluating Workshop Content

Distributing evaluation forms to each workshop attendee – and proactively collecting completed forms at the end of each session – is a simple way to gather participant feedback. Improving the evaluation form previously used by TPCHD will aid in identifying what participants feel works in the workshops (strengths) and what does not (weaknesses). Questions should address workshop content and workshop speakers. Content-related questions should concentrate on value perceptions. For example, asking if information presented in a workshop was easy or difficult to understand can indicate if content is too technical. Similarly, a question about whether participants already knew the facts presented or actually learned something new will help keep content fresh and interesting. Queries that are specific, like these two examples, provide actionable data of greater value than feedback from a very general question such as, “Please rate the quality of the workshop.”

Getting Feedback on Speakers

Applying the same approach to questions about speakers will likewise yield helpful insights. Knowing if participants find a speaker interesting (vs. boring) and knowledgeable (vs. uninformed) will enable TPCHD to monitor and continually upgrade speaker performance. This in turn increases the likelihood of participants adopting new yard care behaviors.

Workshop evaluation forms should be short and simple. Ten questions or less, using primarily multiple choice (no more than two open-ended questions). Since participants will complete evaluations at the end of each workshop – when most people are focused on heading home – a lengthy evaluation form or one that requires significant effort (like writing out responses instead of checking boxes) will result in fewer and/or incomplete submitted forms. Posting a staff person at the exit to ask for completed evaluations yields greater returns. Data from workshop evaluations can be entered into a do-it-yourself survey program such as Survey Monkey to facilitate analysis.

Measuring Behavior Change

Determining how effective the natural yard care workshops are in achieving behavior change is challenging. Probably the most accurate way to do this would be through observing yard care behaviors
before and after a person attends the workshops. However, observation is both impractical and very costly.

Conducting pre- and post-testing is an acceptable method of measuring natural yard care behavior change. It has been used to good effect by many jurisdictions since 2003. This is the process TPCHD can employ:

1. Develop a written questionnaire to be completed by each person attending at least one natural yard care workshop.
   - Keep the questionnaire short (no more than 15 questions).
   - Use only closed questions (multiple choice, ratings).
   - When possible, design questions to be quantifiable.
   - Ask for specific demographic information.

2. Carefully track each workshop participant’s attendance, and provide every person with a pre-test questionnaire when they attend their first workshop (regardless of whether this is workshop #1, #2 or #3 in the series). To keep data accurate, every participant will complete just one pre-test questionnaire. All questionnaires must be completed before the workshop begins.

3. Use the same questionnaire for post-testing approximately six months after the workshop series concludes. Administer the survey online or by phone, using Survey Monkey or a similar do-it-yourself tool.
   - Waiting for six months assesses the “stickiness” of behavior change, and helps eliminate reporting on behaviors that were adopted immediately following workshop participation but later dropped.

4. Compare pre- and post-testing data to determine changes in yard care behaviors that may be attributable to the natural yard care workshops.
Appendix C – FRAUSE Focus Group Report
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This report presents findings from three focus groups conducted on behalf of the Tacoma-Pierce County Health Department. An overview of the groups follows, and findings begin on page four.

Goal

Gain insights about yard care behaviors, and about opinions and attitudes related to natural yard care, for use in developing and implementing workshops that effectively achieve desired yard care behavior change.

Objectives

1. Understand awareness levels of natural yard care, and how the practice of natural yard care is perceived.
2. Identify the barriers that prevent people from adopting natural yard care behaviors.
3. Determine the benefits most likely to convince people to adopt natural yard care behaviors.
4. Learn how the workshop model can be implemented most effectively, and consistently draw strong attendance.

Group Composition

Participants were recruited randomly through online posting, and screened before being invited to attend a group. Participants were paid a $75 stipend to attend. Every participant was screened to ensure he or she

- owned and had lived in a single-family residence with a yard for at least one year;
- handled all yard maintenance/upkeep themselves (i.e., did not use a lawn service or landscaper); and
- had not participated in a natural yard care workshop offered in Pierce County or any other Washington state county.

Once through the initial screening, participants were reviewed to determine which group they fit into. These three groups, described below, were established to maximize the discussion and
information gathering processes. People with common characteristics and interests tend to be more comfortable sharing their views during focus group session, leading to richer data.

**Group 1: Families**
Comprised of individuals who had children under the age of 10 living (full-time) in the home. The people in this group were in the 25 to 45 age range.

**Group 2: Singles and Pets**
Comprised of individuals who did not have any children living in the home; 60 percent of the group owned at least one dog with regular access to the yard. The people in this group were in the 25 to 45 age range.

**Group 3: Baby Boomers**
Comprised of individuals age 60 and older who did not work and did not have children under the age of 10 living at home.

The final level of screening sought to achieve the following:

- Each group had an equal number of people who lived in Tacoma (urban) and who lived in unincorporated areas of Pierce County (suburban).
- Each group skewed slightly female, since experience shows greater workshop attendance from women.
- Each group reflected (approximately) the racial demography of Pierce County and City of Tacoma: 65 percent Caucasian, 11 percent African American, 11 percent Hispanic/Latino, eight percent Asian.

It should be noted that even though the participants were randomly selected and survey-type questions were used, this method does not produce a statistically representative sampling. Results can be interpreted only as representing the answers given by these participants in the context of these meetings.

The chart on the following page summarizes participant demographics.
PARTICIPANT DEMOGRAPHICS

<table>
<thead>
<tr>
<th>Gender</th>
<th>Group 1: Families</th>
<th>Group 2: Singles and Pets</th>
<th>Group 3: Stay-At-Home Baby Boomers</th>
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<td>Male: 0</td>
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<tr>
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<td>55-64: 2</td>
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<td>Caucasian: 3</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
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<td>African American: 1</td>
<td>American Indian: 2</td>
</tr>
<tr>
<td>Asian</td>
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<td></td>
</tr>
<tr>
<td>Urban (Tacoma)</td>
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<td></td>
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</tr>
<tr>
<td>Suburban (Pierce County)</td>
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<td>Dogs in the home</td>
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<td>Yes: 3</td>
<td>Yes: 3</td>
</tr>
<tr>
<td></td>
<td>No: 3</td>
<td>No: 5</td>
<td>No: 2</td>
</tr>
</tbody>
</table>

Dates and Locations

Each focus group ran from 6:00 to 8:00 p.m. The three sessions were held in different locations:

- **Group 1, Families**
  - March 11, 2014
  - Puyallup Activity Center, Puyallup

- **Group 2, Singles and Pets**
  - March 12, 2014
  - Sprinker Recreation Center, Spanaway

- **Group 3, Baby Boomers**
  - March 13, 2014
  - Tacoma Nature Center, Tacoma
Findings

A YARD MEANS SOMETHING DIFFERENT TO EVERYONE
Some people see their yards as a place to entertain friends and family. Others use the yard for solitary pursuits like reading or gardening. There is a sense of security in one’s yard, and it’s considered a safe area for children and pets to play. During summer months, everyone spends at least some time during the week outside in the yard – from a couple of hours on the weekend up to several hours each day. Working in the garden is an activity enjoyed by many.

Things people don’t like about their yards include weeds (including blackberries and moss), moles and unwanted insects. Further discussion by participants about the living things in their yards (insects, birds, wildlife, frogs and snakes, etc.) revealed a broad dislike of most of these creatures, with the exception of birds. Insects in general are disliked, as are various rodents and small animals, considered pests that damage yard plantings.

Verbatim Participant Remarks
It’s a great place for social gatherings, especially when you want to be outside.

I don’t necessarily like it (taking care of the yard), but I don’t like it when it’s all messy. It’s kind of relaxing mowing the lawn and stuff.

It’s kind of, I guess, an escape from the outside world. I tend to leave my phone in the house and ignore other people and just focus on my family.

[My yard] is calming of everyday society crap. It’s almost like a tranquilizer.

I don’t have a lot of people over. But I do go sit in the backyard, especially in the summer. It’s just kind of a place for me to sit and relax.

I can put the dogs outside without walking them. Just go out in the backyard.

We have a small home, too, so it’s nice to have the large yard, both front and back, to spill out onto.

Observations: There’s an opportunity to position natural yard care as a means of enhancing the yard as a place of refuge and relaxation. This might include providing advice and tips on safe, healthy ways to address what people see as negatives (insects, weeds, wildlife), while educating them about the benefits wrought by many insects and animals.

MANY PEOPLE WANT PERFECT YARDS AND LOTS OF LAWN
Participants live in areas where neighbors take varying levels of care with their yards: some are well-tended and nicely planted while others reflect little work or interest. When asked to describe their “perfect yard,” the majority mentioned manicured, soft green lawns with flowers and shrubs. The Baby Boomers group alone did not seem to dwell on lawn, but felt flowers and low maintenance were important attributes of a perfect yard. This group was also the only one that did not consider having the perfect yard a high priority. Participants in both the Families and Singles
with Pets groups stated it was very important to have a perfect yard. Baby Boomers had other priorities.

**Verbatim Participant Remarks**

[M]y perfect yard] would have grass surrounded by thick flowers and may an evergreen magnolia tree and a red crepe myrtle.

I want it to be kept up nice. I've got a little less than quarter of an acre, and I want it to be nice and clean.

Some bushes but not too much. I like golf course-looking…I like it just simple.

**Observations:** Although reducing lawn size is a common natural yard care tenet, this topic should be approached with caution. Many people are very committed to having lots of beautiful green grass without a single dandelion. Accepting imperfection and less lawn may be inconceivable to some; small steps are recommended.

**YARD CARE IS BOTH A PLEASURE AND A CHORE**

For the Families group, yard care is a group responsibility. Parents said they feel it's important to involve kids in the responsibility of caring for a yard. In the other two groups, yard care is evenly split between being handled by a single individual in the home and being a shared responsibility of spouses or partners. Most expressed dislike of repetitive chores like weeding (some in the Baby Boomers group said weeding was relaxing), and some – not all – felt the same way about mowing. Working in the soil and putting plants in the ground are considered pleasant, often comforting tasks. There was a clear sense of collective enjoyment in yard work being done with members of the family.

**Verbatim Participant Remarks**

I enjoy just putzing around, sitting reading, and everything and to me that’s not work until I get mowing the lawn.

Growing up, mowing was my least favorite thing to do. I don’t have to do that now. So that’s good.

I’m very task-oriented so therefore the weeding aspect I really don’t have too much of a problem because of the end result.

I don’t mind mowing the lawn. It's actually kind of relaxing. It’s not bad, especially if it’s nice out and sunny.

I probably least like weeding. It’s not like, oh gosh, I hate that. I’m just not going to do it.

Basic little weeding things that are kind of tedious or whatever, I don’t like those.
THE EFFECTIVENESS OF PESTICIDES OR FERTILIZERS IS MOST IMPORTANT

Fertilizers, pesticides and other yard care products are purchased by those who actually work in the yard. Most participants conduct online research before purchasing, sometimes to determine product safety but more often to assess effectiveness. Although cost was mentioned by the Families and Baby Boomers groups (cost did not come up with the Singles with Pets), the more important criterion is product effectiveness.

Opinions about weed ‘n feed products are fairly positive. Many participants in the Families and Baby Boomers groups use weed ‘n feed and appreciate the ability of the product to help get rid of weeds and give lawns a boost. No one in the Singles with Pets group admitted to using weed ‘n feed. When asked how they controlled weeds or insects like aphids or caterpillars, participants in all three groups described using pesticides, primarily spray products. Most of them read and follow product application instructions, but some simply spray to saturate the target area. A couple of Baby Boomer group participants use natural products like vinegar to control insects, and another couple in the Families group mentioned concern about chemical fumes being safe for children and pets. These were not, however, overriding concerns.

Verbatim Participant Remarks

I do trial and error. I'll go in and get some weed 'n feed and see if it works. I'll just go buy a $20 bag and use that. Nope, it didn't do nothing. Okay, try the next brand.

We have the issue of, if we knew for sure it was going to work, spending double what you would normally pay for it wouldn't be that big of a deal because you know it's going to work.

I was like, well, if I can just spray this stuff and it'll get rid of those [weeds], I don't have to mow the entire lawn.

[Yes, I want a guarantee] so when I buy the fertilizer or chemicals, it's going to actually do what it tells me it will. It drives me crazy when I spend all this money on something that doesn't work.

Observations: The immediacy of chemicals in killing weeds and insects is related to the issue of effectiveness that repeatedly came up. Natural yard care methods can be equally effective but are often slower-acting. There’s an opportunity to further educate people on these options, and to focus on some of the negatives of chemicals at the personal level: obnoxious odors, health issues related to exposure, etc.

THERE’S PLENTY OF INTEREST IN LEARNING ABOUT YARD CARE

Learning about plants, including different varieties of grass, was a common thread when participants were asked what yard care topics they’d like to know more about. Practices appropriate for the Puget Sound region climate were also mentioned. People in the Families and Baby Boomers groups are interested in landscaping and yard design. Everyone uses the Internet to find information, many ask their friends, and Families and Baby Boomers participants frequently seek advice from sales people at nurseries and big box stores. Several people had low opinions of the knowledge levels of sales clerks at big box stores like Home Depot and Lowe’s.
NATURAL YARD CARE WORKSHOPS SOUND APPEALING IF THEY’RE FREE
Participants in all three groups liked the idea of natural yard care workshops, as long as the sessions were free and held at a convenient location and time. They prefer speakers who are considered experts in the subject matter being presented – not necessarily a “celebrity” like Ciscoe Morris, but someone with solid credentials. Many people disliked the thought of speakers associated with particular products, thinking those speakers would be most interested in promoting said products. Enthusiasm was expressed for hands-on activities during workshops, or the opportunity to bring something from their own yards for the speaker to take a look at and provide advice. Evening times were deemed best, both during the week or on weekends. Some participants thought offering food at the workshops would help draw people in, others mentioned giving people a free gift was a good idea.

The idea of workshops held at garden stores or nurseries was met with a mixed reaction. Participants feel there would be an expectation of making purchases at any retail outlet. At the same time, the convenient location of a Home Depot or Lowe’s is appreciated, while the perceived staff expertise at a nursery is appealing.

Verbatim Participant Remarks

There’s always a reason for having it. It’s not to give you any information, really. There’s an underlying agenda.  
they’re educated they’re excited just to teach you and let you speak.

To me, when [a speaker is] passionate they’ve obviously spent a lot of time with it so I would be more apt to listen to somebody like that than somebody who’s more clinical about it.  
That’s an investment of time. I don’t know if I want to put in that much time. I like to be comfortable at home looking up stuff.

The thing with gardeners, too, when you go to something that gardeners put on even when  
I want [a speaker] that has experience. A blue collar kind of buy, you can tell has actually done the work.

Observations: People are interested in learning how to better care for their yards, but are wary of sales pitches thinly disguised as learning opportunities. They are also sensitive to unspoken expectations to purchase specific products. Careful selection of workshop speakers will help mitigate these concerns. Holding workshops in neutral venues like schools or community centers will also help.

MAILINGS ARE MORE LIKELY TO BE OPENED IF THEY LOOK PERSONAL
Everyone participating in the focus groups was given a color flyer previously created by the TPCHD to market natural yard care workshops in Gig Harbor (next page). When asked what they first saw upon removing the flyer from its envelope, most people mentioned the color photograph of a flower garden. The first line of the headline (Natural Yard Care) and the first line of the subhead (Prizes! Snacks!) caught a lot of attention. Everyone understood that the purpose of the flyer was to have
people sign up for workshops. When asked if they’d read it should this flyer arrive in their mailbox, all three groups claimed the appearance of the envelope holding the flyer would determine if the mail would even be opened. Participants want the envelope to look personal (hand-addressed), not be addressed to “resident,” not appear to be a bill. More than half the people in each group said they would attend the natural yard care workshops advertising on the flyer.

Natural Yard Care
Free Workshop Series

Prizes! Snacks!
Soil and planting demonstrations!

City of Gig Harbor
Gig Harbor City Hall
3510 Grandview Street
6:30-8:30 p.m.

Tuesday, May 7

Lawn & Garden Health–Building Soil Resources
with Anna Thurston, Landscape Horticulture Designer, Improve the growing potential of your soil in your yard and garden. Bring in a soil sample to test!

Tuesday, May 14

Nature Knows Best in Your Landscape with Bill Peregrine, Landscaper and Designer
Using nature’s ways to improve and add beauty to your landscape!

Tuesday, May 21

Native Plant Landscaping with Dana Bressette, Urban Horticulturist
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MARKETING MATERIALS WITH YARD IMAGES ARE WELL RECEIVED

The participants in each group were asked to look at a set of four postcard designs and select the one they liked the best. The four concepts are presented below. Across the three groups, just two people selected Concept #1/Leaves; there were many comments that it was difficult to read. Four people liked Concept #2/Rainbow the best. Three of these were participants in the Families group and the fourth was in the Singles and Pets group. All who chose Concept #2/Rainbow were women. It should be noted that no one in the Baby Boomers group chose either Concept #1/Leaves or Concept #2/Rainbow. Concept #3/Child and Concept #4/Trowel were both deemed “best” by six participants, representing all three of the groups. Comments were made that Concept #3/Child looked like a yard and that the child was an appealing image. Participants also mentioned the natural look of Concept #4/Trowel, described as “calming.”

Postcard concepts:

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<th>Concept #1</th>
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<td>Leaf Background</td>
<td>Rainbow</td>
<td>Child with Shovel</td>
<td>Trowel with Soil</td>
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<th>Group 1, Families</th>
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**Observations:** Creating materials that appeal to a broad audience (men and women, singles and families, young people and seniors) can be challenging. The use of yard and garden photos (versus illustrations) is powerful. Written copy that focuses on key benefits (free, interesting topics, prizes or gifts) will also help ensure people actually read and potentially respond to natural yard care marketing materials.
Moderator’s Guide

OPENING 6:00-6:10

Introductions. I’m Sue Gillespie and I want to thank everyone for coming. The topic we are discussing tonight is yard care, and we’re looking forward to hearing your opinions and ideas. We’re going to hold off on telling you the name of the organization funding the session until the end to prevent any potential bias or influence on the way everyone shares their thoughts.

Purpose. The purpose of the session is to learn more about the way you take care of your yards, how yard care decisions are made, and the various ways you prefer to learn about new or different yard care practices. The opinions and insights secured from everyone this evening will be used to help shape programs, messages and education about yard care.

Structure and Rules. I have questions to ask, but this is intended to be a discussion session and we want everyone to participate by sharing your own ideas and thoughts. Less talk from me and more from you will help give us the insights we need. There are no right or wrong answers or opinions. Everyone has their own ideas, and we want to hear them all. We ask that you please be polite in allowing others to speak, and respectful of the comments offered, even if they differ from your own.

Schedule, Payment, Housekeeping. We’ll finish promptly at 8:00. At the conclusion of the session you’ll each receive payment in the amount of $75 as a thank you for your participation. Throughout the discussion, feel free to help yourself to the beverages and snacks that are provided. Restrooms are located (insert). The session is being audio recorded, but this is for our internal review only. Your participation will be kept confidential. And finally, we have a couple of folks here to observe the session, but they won’t be taking part in any of the discussions.

Does anyone have questions before we begin?

GENERAL YARD 6:10-6:35

Let’s start by talking about your yard how it fits into your lifestyle and/or your family’s lifestyle.

1. What’s the best thing about your yard, and why?
   a. What are some of the things you do in your yard? Sit out and relax, enjoy a meal, putter with plants, play Frisbee or bocce, barbecue, etc.
   b. Do you have guests/visitors in your yard very often? Who?
   c. During warm and non-rainy months, how much time do you spend in your yard – not working, but enjoying the yard?

2. What’s the worst thing about your yard – what do you like least? Requires a lot of work to maintain, amount of sun or shade, not enough or too many trees, too big/too small, not very interesting.
a. What would you like to do in your yard that you’re not able to? Sit out and relax, enjoy a meal, play Frisbee or bocce, barbecue, etc.
b. If you could change one thing about your yard, what would it be?

3. What do yards look like in your neighborhood or the area where you live?
   a. How do you think a perfect yard should look?
   b. How important to you is it to have a yard that looks perfect?

4. Tell us about the living things that are in your yard. Rabbits, mice, raccoons, moles, birds, insects, frogs, snakes, etc.
   a. How do you feel about having these critters in your yard?
   b. Do you try to keep any of them out of your yard? Or do you encourage them? How do you do that?

YARD CARE

Now I’d like to spend some time talking about caring for your yard.

5. In your home, who is responsible for taking care of the yard? You, a spouse, a partner, someone you hire.
   a. How do people feel about taking care of the yard? Like it? Love it? Don’t like it? Hate it?
   b. Are there some tasks that are more enjoyable than others? What are they? What tasks do you (or the person who performs them) like the most?
   c. What are the yard care tasks you like the least?
   d. What would make caring for your yard more enjoyable?

6. Who makes decisions about yard care products purchased for your yard?
   a. How are those decisions made? There are many types/brands of products available, what’s the most important consideration when making a purchase? Cost, brand name, quality, habit, etc.

7. Lots of companies use the word “organic” on products like fertilizers – what does this mean to you? Positive/negative, confusing, unimportant, etc.
   When you use fertilizer, how do you determine the quantity to apply? Read the directions? Guess?
8. Tell us what you think of weed ‘n feed products.
   a. What do they do?
   b. Do you use them and why?
   c. Do you feel they are valuable in caring for your yard?

9. How do you manage or control weeds or damaging insects like aphids or tent caterpillars?
   a. What pesticides do you use?
   b. How do you decide how much of a pesticide product to apply? Read instructions? Guesstimate?
   c. Do you use methods other than pesticides?

10. How much time do you actually spend taking care of your yard?
    a. How much time would you like to spend taking care of your yard?

LEARNING ABOUT YARD CARE

Let’s move on to the topic of learning about yard care.

11. When it comes to yard care, what subjects would you like to learn more about? Design, plants, lawn, controlling pests, moss, choosing products, etc.
    a. If there’s something in particular you want to know about yard care, what do you do? Go online and Google the topic, look for a YouTube video, buy and read a book, call a garden center or nursery, call in to a radio talk show, attend a workshop.

12. What do you think about the idea of a yard care workshop, with a speaker or speakers who present information about a specific topic?
    a. What would encourage you to attend such a workshop?
    b. Would you be more inclined to attend such a workshop if you knew some of the other people who would be there? What about if the speaker was someone whose name you recognized and respected?
    c. What’s the primary reason you probably would not attend such a workshop?
    d. Are there better days and times for workshops based on your schedule and responsibilities?

13. Sometimes yard care workshops are scheduled at garden stores or nurseries. What do you think about workshops in locations like these?
    a. Would you attend this type of workshop?
    b. What if the workshop was held at a Lowe’s or Home Depot?
    c. What if the workshop was held at a place like Walton’s?

14. If you were planning a workshop on yard care and you wanted to attract as many people as possible, what would you do?

MATERIALS REVIEW
We’ve just talked a bit about yard care workshops, and now I have a couple of items that were created to market workshops and encourage people to attend. I’d like to get your feedback on these items.

15. Natural Yard Care Free Workshop Series Flyer
   a. What’s the first thing you see when you look at this flyer?
   b. If you received this in the mail, would you read it or toss it in the trash? Why?
   c. What’s the purpose of the flyer? Does it achieve that purpose – would you call or email to sign up for a workshop? Why or why not?
   d. What would you do differently on this flyer to encourage people to sign up for a workshop?

16. Natural Yard Care Postcard
   a. Which of these postcards, if you received it in the mail, would you be most likely to read? Why?
   b. Which would you be least likely to read? Why?
   c. Explain what these postcards are promoting. Give details – what is the call to action?

17. If we wanted to let you know about an upcoming yard care workshop, what would be the best way to reach you?

CLOSE

7:50-8:00

We only have a few minutes left, and I have two final questions to ask.

18. What did we miss today that you’d like to discuss?

19. What was the most important point or topic we talked about?

Thank you again for sharing your time and thoughts with us.
Appendix D – Master Gardener Focus Group Discussion Summary

Master Gardener Focus Group

Different ways to help promote the Master Gardener program were discussed during a Master Gardener Focus Group in October 2015 with eight Pierce County Master Gardeners. The Master Gardeners in the group had the following suggestions:

- Provide seasonally appropriate giveaways at the proper time of year. Most FAQ’s are often seasonal, too.
- Need space for the handouts at the clinic sites (i.e., brochure holders).
- Target the “younger crowd” with the communications – phone apps, YouTube videos, etc.
- People want fast results, tidy yards.
- Provide an electronic yard care calendar for people to download that tells them when to do maintenance/pruning, etc. in their yards.
- Provide Neighborhood Mobile Clinics – take the information to residents’ homes and yards. Benefits of in-person consultation – the Master Gardeners can drill-down, ask more questions about their specific situation, see the issues, etc.
- Provide a Master Gardener yard make-over – in collaboration with a Neighborhood Yard Beautification Tour – Master Gardener led walking tour of yards in your neighborhood, give tips and recommendations for yards on the tour, and one lucky neighbor gets a yard make-over. Master Gardeners provide the recommendations and volunteer labor to do the work, City or County pay for plants and soil amendments.
- Work with the Master Gardeners to improve recruitment into their program, especially of younger gardeners.
- Interested audiences include new parents, new home buyers (trying to get their yard in shape the way they like it)
- General belief statements about the value of NYC in the Northwest by the Master Gardener group:
  - It’s important to Stop Poisoning your Lawn
  - It’s important to Revitalize your Garden
  - Cities are the Last Great Restoration Frontier
  - It all grows here – the Pacific NW is great for all kinds of plants.

“Top 5” list of most frequently asked gardening questions and suggested solutions:

- Why is my lawn dying?
  - Amend the lawn. Encourage people to let their lawn to go dormant in the summer – it will come back in the fall/winter.
  - Lawnmower sticker: “summer sleep – winter eat”
o Hand out bags of slow release amendment for giveaways with a coupon to purchase more.
o How-to video to change grass under trees into mulch.
o Certified natural lawn signs for yards. Send to people who have met the requirements. If more people see these signs, it may get them to do the same.
o Certify lawn care professionals in natural lawn care.

• What is wrong with my plant/trees?
o No group discussion on this topic.

• How to get rid of moss in my lawn?
o pH soil test kits with brochure explaining what you need for the lawn to grow. Learn to appreciate the moss.

• Weeds – what are they and how to kill them?
o Have something on the Master Gardner website/Facebook page – weed of the week and how to get rid of it.

• Insect pest control?
o Focus on flea beetle type pests, as an example. Can’t make a one-size-fits-all tool that takes care of every pest concern. But frequently, when people come in with leaf damage, it’s a flea beetle problem. Hand out mustard and radish seed packets to create a sacrificial crop for the flea beetles to eat and stay off of other plants. On the packet have a picture of a leaf with beetle damage on it and instructions on how to safely dispose of the sacrificial crop leaves once the flea beetle is done with them (dispose in garbage, not compost or mulch.)
Appendix E – Natural Yard Care Program Promotion Strategy

Creative Brief:
Goals of promotions:
• Increase awareness of natural yard care (NYC) as an alternative to chemical yard care
• Promote Master Gardeners as a resource to identify NYC solutions to yard problems
• Promote simple changes homeowners can take to adopt NYC practices

Target audience:
• Pierce County residents – specifically City of Tacoma and unincorporated Pierce County
• Homeowners who do their own yard care
• People interested in alternatives to potentially toxic yard care chemicals
• People who care what their yard looks like

How to measure success:
• Increased contacts by residents to Master Gardener home clinic (email and phone)
• Increased number of clicks on Master Gardener website and Facebook page
• Increased number of followers on Master Gardener Facebook page
• Sound behavior index and other environmental behavior surveys will identify increased awareness of NYC practices

Key messages:
• NYC methods offer a safe alternative to potentially harmful chemical yard care products
• You can still have a beautiful yard without using chemicals
• Master Gardeners are an excellent source of individualized yard care information
• Yard chemicals are often overused and can impact both human and environmental health

Tone:
• Positive
• Friendly
• Conversational
• Trustworthy
• Neighborly

Colors or images associated with the campaign:
• Natural color palette
• Families in the yard
• Pets in the yard
• Would like to test illustration vs. photography

Project team/partners:
• Pierce County
• City of Tacoma
• Pierce County Master Gardeners Program (WSU Extension)
• Tacoma-Pierce County Health Department

Others who might be interested:
• Other cities in Pierce County previously involved in the NYC program
• Regional NYC program
• State Master Gardener program coordinator
• WSU
• Pierce Conservation District / Harvest Pierce County
• Others providing gardening advice workshops
• Individual Master Gardeners

2016 Strategy:
Types of media to be used:
• Local newsletters (Tacoma Enviro Talk, Pierce County Earth Matters)
• Social media: Facebook (Master Gardener Facebook page, Tacoma Facebook page, Pierce County Public Works Facebook)

Development of promotions:
Promotions should be developed using a testing strategy on Facebook. The strategy will use the Facebook ads system using an A/B split test method. The testing will test the following one at a time to determine which ads perform the best:
• Taglines
• Graphics – photos vs. photos, illustrations vs. illustrations, and photos vs. illustrations
• Audience targeting (ages, genders, etc.)

The split tests should be implemented over a six week period in February and March, and then widely promoted during the most popular gardening season in the spring. Another split test should be implemented in early fall to test fall-themed messages. Those elements that are the most successful should be incorporated into all of the promotions that are sent out.

Messaging in ads:
Messaging should be focused on providing residents with a connection to Master Gardeners who can help solve their yard care problems, helping them overcome their barriers to using NYC and focusing on the benefits of using NYC.
Audience barriers to using NYC:

- Questioning the effectiveness of using natural products – want something that works the first time
- Concerned about ulterior motives of speakers, especially if they are promoting specific products
- They see insects, weeds and small wildlife (rodents) as yard problems
- High emphasis on stereotypical American yard with large lawn – “keeping up with the Joneses”
- Reducing lawn size is not an option for many
- Want an easy, one-time solution, not tedious work
- Like weed and feed because it addresses two problems – gets rid of weeds and boosts lawn
- Learn more from hand-on activities than just being told how to do something, i.e., lecture style
- Confusion about what a natural product is – how do they compare, what’s toxic, what’s not
- Perception that NYC is more labor intensive, time intensive and expensive
- Lack of general understanding about gardening or lawn care – no access to good resources

Benefits:

- Looking for safer alternatives for kids and pets, motivated by healthy homes messages
- Encourages pollinators (for those interested in having bees and butterflies in their yard) “bird and butterfly garden” – less focus on bees
- Beautiful yard, curb appeal, “keeping up with the Joneses”
- Environmental benefits – reduce polluted runoff and groundwater contamination
- Yard is a retreat from busy life
- Place to entertain family and friends
- Extension of living space during the summer
- Place for pets and family to play
- Like lawns with some flowers and low shrubs, less emphasis on trees
- Like convenience of looking up solutions on the internet, not going somewhere

Potential messages using barriers and benefits:

- Looking for non-toxic solutions to yard care problems?
- What are your pets/children tracking in the house? Reduce use of yard chemicals.
- Make your yard safer for your family and pets.
- Make your yard beautiful and SAFE!
- What’s running off of your yard? (water quality type message)
- Turn your yard into a safe and beautiful retreat.
• Master Gardeners are a convenient source of yard care information.
• Master Gardeners can help you have a safe and beautiful yard.
• No more trial and error gardening – get the right solution the first time.
• One call, one solution.
• Give your lawnmower a break/rest.
• Master Gardeners are your local solution.
• Free expert advice.
• Tie into healthy food gardening – growing food for the family.
• Contaminants in the soil, polluting the soil with chemicals.

Potential photos, colors, etc. to be used
• Garden gnomes calling the Master Gardener hotline
• Friendly Master Gardener
• Local
• Neighbors
• Kids and pets in the yard
• Colorful garden photos – beautiful yards, low maintenance yards
• Wildlife in yard, i.e., birds, butterflies (not necessarily bees)
• People working in the yard
• Greens and blues
• People enjoying their yard – as a retreat
• Families gardening together, eating vegetables in the garden from the garden
• Container gardening
• Rusting lawnmower, people mowing the lawn looking tired
• Low maintenance yards vs. high maintenance lawns
• Diversity of people
• Bright, sunny
• Connection to water – kids in a creek
• Special moments that families have in the yard or garden – digging in the soil, planting a tree together, child covered in dirt, child playing with a worm, mud pies, kids putting things in their mouths, etc.
• People that look like the audience, older gardeners, young families, women working in the yard, single person container gardening, “urban homestead-type couple,” etc.
• Working in the yard and relaxing in the yard
Appendix F – Proposed Evaluation Plan

The Natural Yard Care team will be implementing multiple strategies outlined above to affect behavior change among residents. The following is the data collection strategy that will be used to assess behavior change as a result of the program. These strategies will be implemented over time as funding and resources become available for the program. Evaluation methods may be revised if strategies change over time.

Baseline data collection: To be completed by March 2016

- Collect the approximate number and types of engagements between Master Gardeners and residents over the two years before the partnership was implemented: Master Gardener program will provide reporting from members about engagements at “clinics” in 2014 and 2015
- Collect data about success among residents of implementing Master Gardener advice: Master Gardener program will provide contact information collected at clinics from residents. A phone and email follow-up interview will collect information from gardeners about:
  - The type of gardening problem they contacted Master Gardeners about
  - Whether they received a solution from Master Gardeners
  - Whether they implemented that advice
  - Whether they were successful in solving the problem
  - Whether they would continue to use that advice or an alternate method
  - Whether they would call Master Gardeners for advice again
  - Whether they would recommend Master Gardeners as a source of gardening information to a friend or relative with a need for gardening advice
- Facebook activity analysis, likes, hits, posts, mentions
- Website analytics
- Natural yard care problem identification by Master Gardeners:
  - Conduct a survey of Master Gardeners to identify the most commonly identified problems by home gardeners that are related to NYC topics (completed summer 2015)
  - Conduct a Master Gardener focus group related to identification of home gardener problems and development of tools that would help home gardeners improve their chances of success in implementing solutions to those problems. (completed fall 2015)

Strategy 1 - Master Gardener Program Promotion:
The Master Gardener program will be promoted via social media advertising and promotion by program partners in 2016. Success of increased promotions will be measured using the following methods:
• Number of Master Gardener engagements at the “home clinic” via phone and email contacts: Master Gardeners will report engagement numbers and types from 2016 and compare to numbers from 2014 and 2015. Most promotions will focus on “home clinic” engagements via phone and email, so an increase in those types of engagements will show results of promotion activities.

• Website analytics: Increases in website hits coming from direct links used in promotions

• Social media analytics: Increases in engagements on social media, especially likes, shares and mentions on Facebook.

Strategy 2 - Tools for Improved Implementation of Master Gardener Advice by Homeowners:

Throughout 2016 and 2017 the team will be developing tools that can be used by homeowners to improve their implementation of Master Gardener advice. A specific evaluation strategy will be developed and implemented when each tool is piloted. The following should be the general outline for evaluation of these tools:

• Collect contact information for any resident who receives the tool and collect information about the trouble they are having

• Follow-up survey or interview of resident to determine their success in implementing the behavior and how it was impacted by having the tool available

• Request information about whether the tool will continue to be useful and how it could have been further improved

• Request information about whether the resident will use Master Gardener services again and whether they would recommend those services to a friend or relative seeking gardening advice

• Compare these results to baseline data/control group to determine whether tools improved outcomes

• Make changes to tools, if possible, to improve outcomes and ongoing usability by homeowners

Yard Coach Visits:

In 2016, Tacoma-Pierce County Health Department will pilot home yard coach visits and soil tests. These visits will test strategies implemented by City of Olympia during their lawn coach program to provide technical support to homeowners about solving yard care problems with natural yard care solutions and taking a complimentary soil sample from their yard to provide them with additional chemical analysis of their soil’s needs. As this tool is developed, the following general evaluation criteria should be used to develop a complete evaluation plan:

• Collect contact information for any resident who receives a home visit

• Collect information about the types of yard care advice requested by the homeowner and the advice given to the homeowner
• Collect baseline information about natural yard care behaviors each participating resident is implementing, especially related to use of pesticides and fertilizers.
• Conduct a follow-up survey of participants to measure their adoption of natural yard care practices following the home visit
• Implement an alternate program similar to a “control” such as providing vouchers for free soil samples and pamphlets related to natural yard care or Master Gardener advice with no on-site visit, and compare the resulting behavior change results similarly to determine the cost-benefit relative to each approach
• Compare program outcomes to other behavior change tools and determine whether the program should be moved forward and expanded or whether any program alterations should be made to be more successful.

Program evaluation:
Collect program baseline information again every other year to determine whether the program has grown and shown improved outcomes. Revisit evaluation plan every two years or with launch of new strategies to ensure ongoing improvements to the program are implemented to increase adoption by residents of natural yard care practices.

Potential topics for future program evaluation:
• Master Gardener Clinic visitors:
  o Ask them how they heard about the Clinic
  o Collect demographic profile information such as age, gender, income, presence of children or pets in the home, and age of home
• Send out end of year survey to everyone who emailed questions to Master Gardeners to see if they implemented recommended solutions
• Ensure the advice given by Master Gardeners aligns with NYC tips through secret caller check-ups
• Track analytics of QR codes through redirects
• Conduct periodic Sound Behavior Index Surveys to evaluate program effectiveness over time
Appendix G – Additional Marketing and Promotion Ideas

Potential taglines, visuals, logos, colors, script, scenes, etc. that will help the target audience become interested in this campaign.

- No more trial and error
- One call, one solution
- Include kids and family activities
- Include yards that look like something people would want in their yard
- Pets
- Master Gardeners logo and sponsorship is primary (use existing Master Gardener logo)
- Tacoma has been using sunflower graphic
- There is a better solution
- Safe, healthy gardening
- Friendly
- People like talking to Master Gardeners, because they are neighbors, community members, friendly, local, non-government, advice not regulation
- Free
- Convenient
- Inviting

Media campaign ideas to consider include:
Encourage people to “ask a Master Gardener” when seeking out solutions to garden and lawn maintenance problems.

- Possible communication channels include: Local newsletters – EnviroTalk, Earth Matters, 2016 PC SWM newsletter
  - Valpack ads
  - Magnets with hotline info
  - QR codes
  - Retailer cards (think about coupon holder like Fred Meyer)
  - Facebook
  - YouTube videos
  - Websites – Master Gardener website, Health Department, County and Tacoma websites point to Master Gardener website
  - Clinics
  - Clinic location signage – “Master Gardeners will be here Saturday 10-noon”
- Possible locations for media campaigns:
  - Retail stores
  - Gardening events/garden show
  - Farmers markets
  - Mail at home
  - Targeted online ads i.e. google
Potential Marketing Strategies

- Partner with lawn care professionals to develop trial natural lawn care approaches (rather than the City just telling them what approaches to use). The City can then create a neighborhood demonstration lawn program that would select a few key households in each neighborhood to receive a subsidy for using the services of the new natural lawn care professionals. Through promotion by the City and the professionals, word would quickly spread about these new methods and their proven effectiveness.
- Information alone rarely changes behavior; real world demonstrations by trusted individuals (neighbors and yard care professionals) are more likely to be effective.
- Partner with local nurseries and yard care retailers to provide coupons and financial incentives for customers to try the proven natural yard care products.
- Provide real vouchers.
- Provide coupons for NYC products.
- Pressure yard chemical manufacturers.
- Work with local source control - part of an inspection.
- Work with legislators to get new regulations in place (or funding sources).

Stakeholders and Potential Project Partners

- Apartment complexes
- Childcare
- Church groups
- City parks
- Community gardens
- Corporate partnerships
- Environmental Protection Agency
- Golf courses
- Higher education institutions
- Homeowners associations
- Landscapers
- Lawn/garden owners
• Lawn/garden workers
• Local garden/lawn businesses
• Master Gardeners
• Nature Center
• Neighborhood Councils
• Northwest Trek
• Nurseries
• Organic/NYC product manufacturers
• Parents with young children
• People with pets
• Pet stores
• Property management
• Puget Sound Partnership
• Puget Sound Regional Council
• Retail stores that sell lawn care products
• Schools
• Boy Scouts
• Stormwater Outreach for Regional Municipalities (with NPDES Stormwater permits)
• Tribes
• Trusted community leaders
• Veterinarians
• Volunteer organizations
• WA Association of Landscape Professionals
• WA Department of Ecology
• Youth and adult sports teams
• Point Defiance Zoo & Aquarium

Potential partnership factors and scenarios to consider include
• Partnerships are important; partner with organizations with strong social media.
• Develop criteria to participate.
• Open participation to all interested.
• Do pilot campaign with just a few partners.
Appendix H - Recommendations for Further NYC Program Research

- What are other incentives that would entice people to use NYC methods?
- What promotion strategy should be used to effectively communicate BMPs and encourage people to “ask a Master Gardener”?
- Would most people trust the Master Gardeners enough to implement their suggested BMPs?
- After using the suggested BMPs will people continue to use them or revert back to chemical use?
- What facts will help the audience understand the impacts to Puget Sound? Does it matter?
- What facts and messages will help the audience understand and believe the potential impacts of using chemicals on their yard?
- What is the best way to message the impacts to ensure we are accurate and perceived by the audience as relevant, meaningful, important and believable?
- How do people currently use Master Gardeners’ resources (such as Hortsense)?
- How can we develop an effective partnership with the Master Gardeners?
- How well do Master Gardeners communicate BMP to the public?
- How can we help improve BMP communication?
- How we will evaluate effectiveness of promotion strategy?
- How can we increase recruitment of new Master Gardeners?
- How can we increase public visibility of Master Gardener services?
- What is retrofit cost for WSDOT to do stormwater controls? Because of this expense, are they interested in being a partner?
- More study is needed on the effects of nicotine-derived and pyrethrum-derived insecticides on the environment, especially in watersheds where their use is highly concentrated.