

County: Jefferson
Grant No: SEANWS-2018-JeCoWS-00008

PROJECT TITLE: Jefferson County MRC Operations and Projects

DELIVERABLES FOR TASK NO: 3. Rain Gardens

T3.2 - Rain Garden Summary Report

PROGRESS REPORT: [☐]

FINAL REPORT [☒]

PERIOD COVERED: Apr. 1, 2019 – Sept 30, 2019

DATE SUBMITTED: Oct 17, 2019



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T3.2 Rain Garden Summary Report for 2019

This report is a summary of the two 2019 Jefferson MRC rain garden projects with background information, photos, media coverage and drawings. The only permit required was a City Right of Way permit for the April installation, which was waived by the City of Port Townsend, so no permit documents are attached.

This year, WSU Extension and the Jefferson MRC worked with the City of Port Townsend and Jefferson County to identify sites where rain gardens could be installed in 2019. The two selected sites were high visibility sites for the public:

- A rain garden in Uptown Port Townsend (739 Lincoln St, at the SE corner of Adams and Lincoln), in collaboration with the City of Port Townsend and an adjacent landowner. This is part of the drainage that feeds into Port Townsend Bay near San Juan/Kai Tai Lagoon.
- The second rain garden was installed adjacent to Center Road in Quilcene. It treats some of the stormwater flowing from Highway 101 and Center Rd before it flows into Cemetery Drain, a channelized creek that flows directly into Quilcene Bay a short distance away. We worked with the County and the landowner on placement. Drainage is now diverted from the street through a rough curb cut, which the County will finish up when they do their street improvement work next spring. During higher rain events, overflow will move across a grassy field into Cemetery Drain.

Partnerships

Our partners each had different roles: WSU Extension (design, logistics & mulch); City of PT Public Works (site preparation, soil amendments and ROW permit waiver), MRC (plants, miscellaneous supplies, contractor costs & volunteer coordination.)

Bob Simmons, WSU Extension Water Quality faculty, developed both rain garden structural designs, worked with City staff (April installation) and County staff (September installation), obtained approval from landowners, and requested waivers for the City ROW permit. In April, Bob supervised and worked with the City's Public Works staff, who excavated and graded this site on public ROW, backfilled with appropriate rain garden soil mix and placed rock as necessary to prevent erosion. WSU Extension paid for the finish mulch for that project. For both rain gardens, WSU Extension staff Erica Guttman recommended which plants should be planted and supervised both planting efforts.

For the September installation, Bob coordinated with the County Public Works to make sure that installation fit into their upcoming streets improvement project along that stretch of Center Rd. He also supervised a local contractor to excavate, grade and backfill with a rain garden soil mix as per design specifications (digging the main basin and drainage channels; amending the soil and leveling in preparation for planting).

The Jefferson MRC Coordinator recruited and coordinated volunteers and managed all the installation invoices and reporting obligations.

Community Engagement and Outreach

In addition to recruiting community volunteers, we also engaged with local school districts in both rain garden projects. The elementary school teacher from the PT School District's OCEAN program used the Port Townsend rain garden project as a place-based learning tool: in the weeks leading up to the installation, the kids helped measure site, calculate drainage area, study how rain gardens work and then helped with planting on April 30th (and recruited some of their parents to help with the planting). Approximately 11 students from the Quilcene School (K-12) joined us in the fall for two brief hands-on sessions under the supervision of teacher Justin Lake, to learn about this rain garden as part of their preparations for installing a rain garden project on their school grounds later in the school year.

As an added bonus, we were able to purchase additional plants while still staying under project budget. These plants will be used by the Quilcene School for their rain garden to filter additional stormwater also flowing into Quilcene Bay, which is a major shellfish growing area. The plants are now being taken care of by the students in a school plant nursery area under Justin Lake's supervision until they can be planted.

1200 square feet = area of both rain gardens (each about 600 sf). Total cumulative area of all 10 MRC-co-sponsored rain gardens in the last 5 years is now **7,772 sq ft.**

- **Lincoln & Adams St. Rain Garden:** Dimensions for this rain garden are approximately 15 ft by 40 ft. We engaged 22 volunteers who donated 75 hours; 12 of those volunteers (not counting the students) are new to MRC projects.
- **Quilcene Rain Garden:** Dimensions for this rain garden are approximately 20 ft x 30 ft. We engaged 9 community volunteers for this installation (4 of whom were new to MRC projects) and included County Commissioner Greg Brotherton and the new WSU Jefferson County Extension Director Cliff Moore. (51 hours of volunteer time)

Articles about both rain gardens were posted on the MRC website and the Northwest Straits Commission social media posts and newsletter. Volunteer recruitment notices and thank you's also appeared in the PT Marine Science Center Volunteer News and the WSU Ext Water Programs Volunteer News. (see attached).

2019 Community Leverage/Match

NWSC Grant Funds Expended: **\$15,859**

Leverage/Match In-Kind Services and Materials: **\$18,583**

Sources of Matching Funds:

- \$3,652 Community/AmeriCorps volunteers: 126 hrs @ \$28.99/hr (PSP's 2018 rate)
- \$12,880 WSU Extension contribution: estimated 208 hrs
- \$2,050 City of Port Townsend's staff time, site work, materials, permit waiver**

**** 2019 estimate of City contribution was based on wages from WA 2018 OES Databook + 40% benefits and the following:**

- public works/excavator operators: 25 hrs @\$40/hour = \$1,000/RG
- Environmental review: 2.5 hours @ \$45/hour = \$112/RG
- Minor improvement permit fees: \$240/RG
- Bioretention soil: 15 cubic yards @\$30/yd = \$450/RG
- Soil transport costs for three 5-yard loads: @ \$75/load = \$240/RG

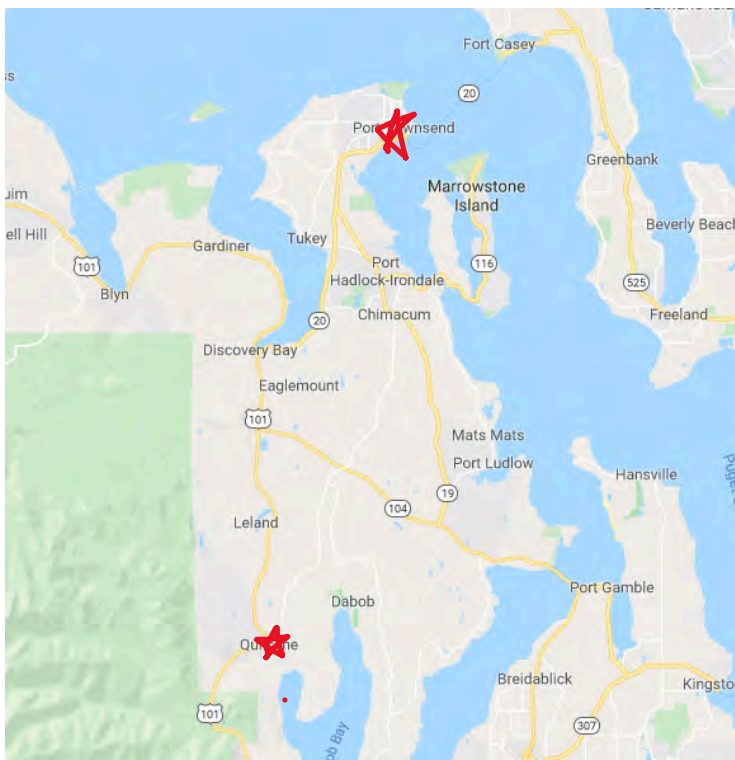
PROJECT OUTCOMES

We reduced flow of contaminated stormwater into Port Townsend Bay (April installation) and improved conditions that contribute to maintaining open status of local shellfish harvesting areas (September installation) with installation of 2 rain gardens. Community engagement included 22 volunteers donating 75 hours in April and 9 volunteers donating 51 hours in Sept. We leveraged grant funds with more than a 1:1 match by community partners.

Attachments (below):

1. Map with locations of new rain gardens
2. Photos of completed rain gardens
3. Drawing of RG design #1 (#2 design not provided to MRC by WSU Extension)
4. Media articles (PTMSC Volunteer News, WSU Water Program Volunteer news)
5. Sign-in sheets for volunteers from June and September 2018.

Rain Garden Locations



Photos

All photos by Cheryl Lowe

April RG site before work began:



April Site Prep Completed:



April Planting in Progress



April Planting completed:



September Rain Garden Installation in Quilcene

Cliff Moore instructing two Quilcene School students on how to plant.



Planting in progress



Completed planting (burlap is temporarily protecting inflow and outflow channels from debris).



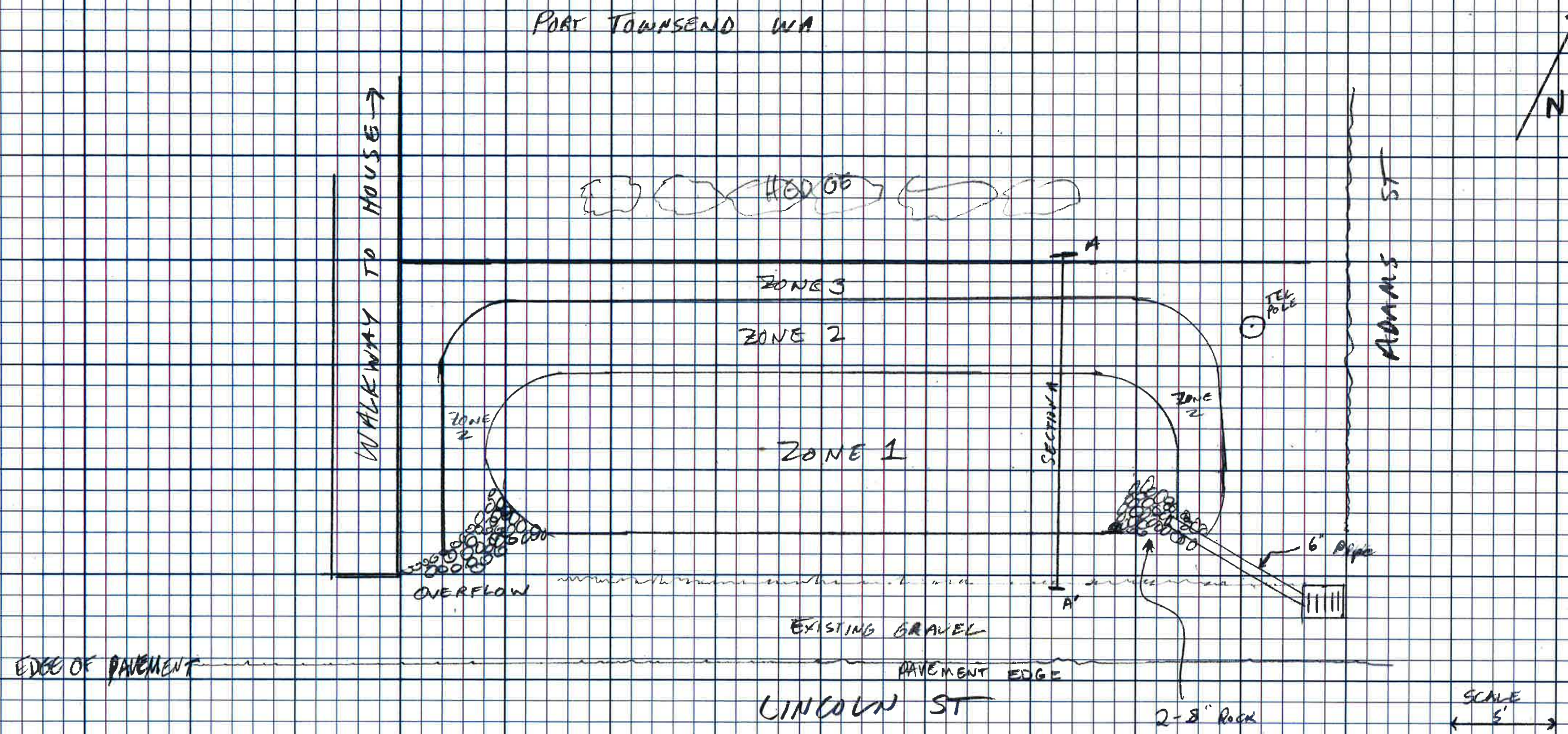
Satisfied Community Volunteers



SE CORNER LINCOLN + ADAMS ST

PLAN VIEW

739 LINCOLN ST
PORT TOWNSEND WA



EDGE OF PAVEMENT

LINCOLN ST

SCALE
5'

INFILTRATION RATE: 6" / HR

PONDING DEPTH: 6" - 8"

FINISHED SLOPES SHALL NOT EXCEED 2:1

PLANTS FOR EACH ZONE WILL BE SELECTED

BASED ON THE "RAINGARDEN HANDBOOK FOR W. WA"

MATERIALS NEEDED

18.5 yd³ BIORETENTION SOIL MIX (60% SAND, 40% COMPOST)

0.25 yd³ DRAIN ROCK 1 1/2" - 2"

0.75 yd³ RIVER ROCK 2-8"

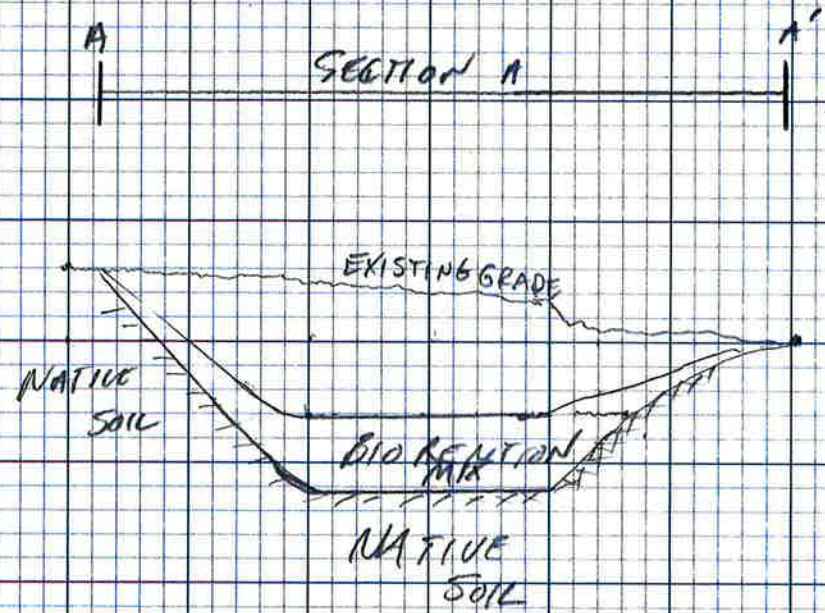
7 yd³ MULCH (CHIPS)

REMOVE APPROX 38 yd³ SOIL

CROSS-SECTION VIEW

RAIN GARDEN : SE CORNER LINCOLN AND ADAMS STREETS

739 LINCOLN ST
PORT TOWNSEND, WA



R. SIMMONS 4-2019

PTMSC Volunteer Update



Gabriele Sanchez <volunteer@ptmsc.org>
Saturday, September 21, 2019 at 2:00 PM
Lowe, Cheryl B
[Show Details](#)



Quilcene Rain Garden Installation with WSU Extension *Tuesday, September 24* *Help needed 10am - 1 pm, or 1-4 pm*

Help us install a new rain garden to filter stormwater from Hwy 101 at the north end of Quilcene.

Learn all about rain gardens first hand, by planting alongside the experts. These installations are long-term filters that keep pollutants out of Puget Sound.

For more info or to sign up, contact Cheryl Lowe (Cheryl.lowe@wsu.edu).

Brown Bag Lunch with Nick Manning *October 22 / 12-1 pm* *Museum Classroom*

We are excited to introduce Nick Manning, the Outreach Coordinator with the [Center for Environmental Law and Policy](#) in Seattle, as our upcoming Brown Bag speaker. We will be diving into a presentation on the interconnectedness of

October WSU Water Programs Volunteer News



WSU Water Programs

Wednesday, October 2, 2019 at 1:35 PM

beachwatchersmrc@gmail.com

[Show Details](#)



Five Beach Naturalists and Stream Stewards helped install a new rain garden in Quilcene, WA in late September. This is the 10th installation by WSU Extension and the Jefferson County Marine Resources Committee to help remove contaminants from road run-off before stormwater enters Puget Sound.

Group Leader	Cheryl Lowe		
Address	121 Oak Bay Rd		
City/Zip	Port Hadlock 98339	Email: cheryl.lowe@uw.edu	
Phone	(c)	(h)	(w) 360-379-5610 x 230
NWSF Contact	Jason Morgan or Claire Scrubbs	(w) 360-733-1725	Email:

Project: <u>Jefferson MRC Rain Garden Installation</u>		
Monitoring Site Name: <u>739 Lincoln St (Fleming)</u>	City: <u>Port Townsend</u>	County: <u>Jefferson</u>
Monitoring Start Time: <u>9:30 am</u>	Monitoring End Time:	Total No. Hours On Site:
Type of Monitoring Conducted: 1) <u>rain garden installation</u> 2) 3)	Protocols/QAPP Followed: 1) <u>WSD ext. protocols</u> 2) 3)	

See back for
returning volunteers

NEW VOLUNTEER CONTACT INFORMATION

Print Name: <u>DAVID COVERT</u>	Email: <u>dcovert@uw.edu</u>	Emergency Contact Name: <u>PAUL COVERT</u> Phone: <u>1-250-654-0190</u>
STREET / CITY / STATE / ZIP <u>1022 16th St, Pt. Townsend, WA 98368</u>		Phone: <u>206 612 9649</u> Notes/Comments:
Print Name: <u>JOE BOB MOORE</u>	Email: <u>(repeat volunteer)</u>	Emergency Contact Name: Phone:
STREET / CITY / STATE / ZIP		Phone: Notes/Comments:
Print Name: <u>Sherry Fleming</u>	Email: <u>sherryf8@comcast.net</u>	Emergency Contact Name: Phone:
STREET / CITY / STATE / ZIP <u>739 Lincoln St, PT 98368</u>		Phone: Notes/Comments:
Print Name: <u>Cherri Mann</u>	Email: <u>cherrimann@aol.com</u>	Emergency Contact Name: <u>Jayne Hanson (sister)</u> Phone: <u>206-388-6794</u>
STREET / CITY / STATE / ZIP <u>Cape George - PT</u>		Phone: Notes/Comments:

Purpose: This table is for tracking the use of volunteer hours. Hours will be used as matching funds for grant funded activities. Please do not record these hours for another program as matching funds may not be used more than once.

(use next page)

Group Leader	Cheryl Lowe		
Address	121 Oak Bay Rd		
City/Zip	Port Hadlock WA	Email:	cheryl.lowe@wsu.edu
Phone	(c)	(h)	(w)
NWSF Contact	Cheryl Suber	(w) 360-733-1725	Email:

Project: Jefferson MRC Rain Garden Install		
Monitoring Site Name: 739 Lincoln St.	City: Port Townsend	County: Jefferson
Monitoring Start Time: 9:30 am	Monitoring End Time: 12	Total No. Hours On Site: 2.5
Type of Monitoring Conducted:	Protocols/QAPP Followed:	
1) RG installation	1) NA - WSU Ext protocols	
2)	2)	
3)	3)	

NEW VOLUNTEER CONTACT INFORMATION

Print Name: Susan Uballo	Email: susuballe@gmail.com	Emergency Contact Name: Esi Uballo	Phone: 906 250 3075
STREET / CITY / STATE / ZIP 2056 11th St PT		Phone: 906 236 1660	Notes/Comments:
Print Name: Troy McKelvey	Email: troy.mckelvey3@gmail.com	Emergency Contact Name:	Phone:
STREET / CITY / STATE / ZIP Logan St Port Townsend		Phone:	Notes/Comments:
Print Name: Heather McRae-Woolf	Email: hmwoolf@gmail.com	Emergency Contact Name:	Phone:
STREET / CITY / STATE / ZIP 1002 Cass St., Port Townsend 98368		Phone:	Notes/Comments:
Print Name:	Email:	Emergency Contact Name:	Phone:
STREET / CITY / STATE / ZIP		Phone:	Notes/Comments:

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Group Leader	Bob Simmons / Cheryl Lowe		
Address	121 Oak Bay Rd		
City/Zip	Port Hadlock, 98339	Email:	
Phone	(c)	(h)	(w)
NWSF Contact	Cheryl Lowe	(w) 360-733-1725	Email:

Project: Jeff MRC RAIN Garden install			
Monitoring Site Name: 739 Lincoln St.		City: Port Townsend	County: Jefferson
Monitoring Start Time: 1pm		Monitoring End Time: variable 5pm	Total No. Hours On Site:
Type of Monitoring Conducted:		Protocols/QAPP Followed:	
1)		1)	
2)		2)	
3)		3)	

NEW VOLUNTEER CONTACT INFORMATION

Print Name: Michelle Asire	Email: masire@cruzio.com	Emergency Contact Name: Bruce Hoffman Phone: 360 344 2922
STREET / CITY / STATE / ZIP 4777 Willamette St PT		Phone: " " Notes/Comments:
Print Name: Steve Johnson	Email:	Emergency Contact Name: Phone:
STREET / CITY / STATE / ZIP 81 Workman Rd, Port Townsend		Phone: Notes/Comments:
Print Name: Anne Jimenez	Email: ajimenez@impulse.net	Emergency Contact Name: Phone:
STREET / CITY / STATE / ZIP 5. Palmer, Port Townsend WA 98368		Phone: 805-717-2610 Notes/Comments:
Print Name: Holly Kuzma	Email: hollymessier@msn.com	Emergency Contact Name: Phone: 360-379-3940
STREET / CITY / STATE / ZIP		Phone: Notes/Comments:

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Group Leader	Cheryl Lowe		
Address	121 Oak Bay Rd		
City/Zip	Port Hadlock WA 98339	Email:	Cheryl.Lowe@wsu.edu
Phone	(c)	(h)	(w) 360-379-5610 x230
NWSF Contact	Claine Surber	(w) 360-733-1725	Email:

Project: Rain Garden Installation		
Monitoring Site Name: Quilcene Rain Garden	City: Quilcene	County: Jefferson
Monitoring Start Time: 9:30 am	Monitoring End Time: 4:30 pm	Total No. Hours On Site: 7 hrs
Type of Monitoring Conducted: 1) planting rain garden	Protocols/QAPP Followed: 1) WSU Extension guidelines. No QAPP	
2)	2)	
3)	3)	

See Back to sign in

NEW VOLUNTEER CONTACT INFORMATION

Print Name: Anne McClure	Email: mccloreanne@hotmail.com	Emergency Contact Name: Mike
STREET / CITY / STATE / ZIP 240 S. Bay Ln Pludlow		Phone: 206 817 1334
Print Name: Michelle Potosto	Email: mimipp@hdmia	Emergency Contact Name:
STREET / CITY / STATE / ZIP 1323 8th St		Phone: 360 821 994
Print Name: Bonnie & Doug Egger	Email:	Emergency Contact Name:
STREET / CITY / STATE / ZIP		Phone:
Print Name:	Email:	Emergency Contact Name:
STREET / CITY / STATE / ZIP		Phone:

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I have also read and understand the protocols associated with these volunteer duties.

Bridget Gregg WSU 4.5 hr