

**SECURE RURAL SCHOOLS AND COMMUNITY SELF-DETERMINATION ACT OF 2000
PUBLIC LAW 110-343
TITLE II PROJECT SUBMISSION FORM
USDA FOREST SERVICE**

Name of Resource Advisory Committee: Olympic Peninsula
Project Number (Assigned by Designated Federal Official):
Funding Fiscal Year(s): 2015

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| 2. Project Name: Visitor Use monitoring within City of Port Townsend's Drinking Water Watershed(s) | 3a. State: WA 3b. County(s): Jefferson, Clallam |
| 4. Project Submitted By: Alex Weinberg | 5. Date: 7/21/2015 |
| 6. Contact Phone Number: 360-765-2228 | 7. Contact E-mail: alexweinberg@fs.fed.us |
| 8. Project Location: Olympic National Forest system trails within Big Quilcene and Little Quilcene drainages | |
| a. National Forest(s): Olympic National Forest | b. Forest Service District: Hood Canal |
| c. Location (Township-Range-Section): T.28N., R.3W., 33 T.27N., R.3W., 33 T.26N., R.3W., 33 T.27N., R.2W., 33 T.28N., R.2W., 33 | |
| 9. Project Goals and Objectives: The goal of this project is to gain a better understanding of the extent of recreational impacts on the City of Port Townsend water quality, as well as the Wilderness resource. The project includes installation of trail counters on Forest Service trail systems with the Big Quilcene and Little Quilcene drainages. Data collected from these devices would be used to inform trail management within these corridors such as identifying the need for a permit system within popular camping areas, or for identifying areas that could benefit from the installation of permanent toilet structures. Additionally, it will help Forest Managers: 1.) Deploy wilderness/trails field staff efficiently (on highest used trails, during peak days/hours) 2.) Understand visitor use trends on selected trails so that determinations can be made as to whether or not existing infrastructure/management practices are sufficient to protect the water/recreation resources. 3.) Deepen Forest's partnership with the City of Port Townsend through monitoring efforts which will improve water quality stewardship in the long term. | |
| 10. Project Description: a. Brief: The project proposes to purchase 12 TRAFx infrared trail counters to be used to monitor and quantify human use within Olympic National Forest's trails that are located within the City of Port Townsend's drinking watersheds. Data will be used to inform land management as it pertains to human use on recreational hiking trails and water quality issues. The trail counters will improve data collection processes that are currently in place; producing better quality data with a reduced operating cost through a partnership with the City of Port Townsend. Data produced from these counters will allow Forest managers to consider adequacy of existing infrastructure, as well as overall visitor | |

impact to water quality and Wilderness health.

b. Detailed: The project requires purchasing 12 TRAFx infrared trail counters as well as a start-up package for a total of \$6,630. The devices are designed to monitor human use on recreational hiking trails. The trail counters would be installed on Forest Service trails that lie within the City of Port Townsend's drinking watersheds (Big Quilcene and Little Quilcene drainages). Installation sites include the following trails: Lower and Upper Big Quilcene trails, Mt. Townsend trail, Sink Lake trail, Tunnel Creek trail, Notch Pass trail, Little Quilcene trail, and Deadfall trail. In some cases, multiple trail counters per trail are needed in order to capture human use at various access points. A GIS map of proposed installation sites is included as an attachment to this proposal. Data from these devices is needed to better the Forest's and City's understanding of recreational impacts on the City of Port Townsend's water supply, as well as the Wilderness resource. Data collected from these devices would be used to inform trail management within these corridors such as identifying the need for a permit system within popular camping areas, or for identifying areas that could benefit from improved infrastructure (in support of water quality) such as permanent toilet structures. A one-time purchase of this product is needed. Operating costs over the long run are anticipated to be relatively low as data collection is anticipated to be carried out through a partnership with the City of Port Townsend and Olympic Forest staff when needed.

When installed and operated properly, these devices can quantify the amount of human use that occurs on a given trail corridor with up to 99% accuracy. The trail counters come with a software package that allows managers to upload and analyze data easily and efficiently. The current visitor monitoring system in place requires visitors to self-register, which varies in accuracy but typically ranges from 50%-65%. Additionally, the registers must be manually entered into a database which is a time-consuming and inefficient process, especially for such low quality data. The acquisition of trail counters used to monitor human use within the Big Quilcene and Little Quilcene drainages will improve Olympic National Forest's trail data collection process and save on operating costs as the trail counters are relatively low maintenance and trail counter expertise exists on Forest.

It is estimated that the installation of all counters could take place over three days by experienced trails/wilderness personnel, and the data could be routinely collected by a City of Port Townsend employee or by seasonal Forest Service employees (in the event the City is no longer able to fund this position) on routine patrols. An experienced trails personnel would be funded to perform non-routine maintenance on the trail counters if the need arose.

11. Types of Lands Involved?

State/Private/Other lands involved? Yes No

Land Status: Federal

If Yes, specify:

12. How does the proposed project meet purposes of the Legislation? (Check at least 1)

Improves maintenance of existing infrastructure.

Implements stewardship objectives that enhance forest ecosystems.

Restores and improves land health.

Restores water quality

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| 13. Project Type | |
| a. Check all that apply: (check at least 1) | |
| <input type="checkbox"/> Road Maintenance | <input checked="" type="checkbox"/> Trail Maintenance |
| <input type="checkbox"/> Road Decommission/Obliteration | <input type="checkbox"/> Trail Obliteration |
| <input type="checkbox"/> Other Infrastructure Maintenance (specify): | |
| <input type="checkbox"/> Soil Productivity Improvement | <input type="checkbox"/> Forest Health Improvement |
| <input checked="" type="checkbox"/> Watershed Restoration & Maintenance | <input type="checkbox"/> Wildlife Habitat Restoration |
| <input type="checkbox"/> Fish Habitat Restoration | <input type="checkbox"/> Control of Noxious Weeds |
| <input type="checkbox"/> Reestablish Native Species | <input type="checkbox"/> Fuels Management/Fire Prevention |
| <input type="checkbox"/> Implement CWPP Project | <input checked="" type="checkbox"/> Other Project Type (specify): Wilderness Management, Visitor Use Management |
| b. Primary Purpose (select only 1): Visitor use monitoring within drinking watershed | |
| 14. Identify What the Project Will Accomplish | |
| Miles of road maintained: | |
| Miles of road decommissioned/obliterated: | |
| Number of structures maintained/improved: Data collected will be used to inform the need for additional, or increased adequacy of infrastructure | |
| Acres of soil productivity improved: | |
| Miles of stream/river restored/improved: Data collected will allow managers to target highest used areas on highest used days/hours for field staff to educate Forest visitors on stewardship principles specific to water quality | |
| Miles of fish habitat restored/improved: | |
| Acres of native species reestablished: | |
| Miles of trail maintained: Visitor use data will allow managers to prioritize trails for maintenance purposes as well as assess and estimate the impacts created by forest visitors | |
| Miles of trial obliterated: | |
| Acres of forest health improved (including fuels reduction): | |
| Acres of rangeland improved: | |
| Acres of wildlife habitat restored/improved: | |
| Acres of noxious weeds controlled: | |
| Timber volume generated: | |
| Jobs generated in full time equivalents (FTE) to nearest tenth. One FTE is 52 forty hour weeks: | |
| People reached (for environmental education projects/fire prevention): Visitor use data will allow managers to target field contacts more efficiently so use of field staff resources is maximized | |
| Direct economic activity benefit: | |

Other:

15. Estimated Project Start Date: October, 2016
16. Estimated Project Completion Date: Ongoing through partnership with City of Port Townsend

17. List known partnerships or collaborative opportunities. Develop visitor use monitoring partnership with City of Port Townsend

18. Identify benefits to communities. City of Port Townsend would benefit from an improved level of water quality management in the Big Quilcene and Little Quilcene drainages.

19. How does the project benefit federal lands/resources? This project will provide a wealth of information concerning visitor use on Forest Service trails that lie within the Little and Big Quilcene drainages. This data will allow the forest to be more competitive for trail grant opportunities. It will allow us to allocate and prioritize our resources through a perspective informed by good trail monitoring science. The data can also help Forest managers plan and make decisions on whether or not existing infrastructure is sufficient to maintain forest and watershed health, as well as maintain a positive recreation experience.

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| 20. What is the Proposed Method(s) of Accomplishment? (check at least 1) | |
| <input type="checkbox"/> Contract | <input checked="" type="checkbox"/> Federal Workforce |
| <input type="checkbox"/> County Workforce | <input type="checkbox"/> Volunteers |
| <input type="checkbox"/> Grant | <input type="checkbox"/> Agreement |
| <input type="checkbox"/> Americorps | <input type="checkbox"/> YCC/CCC Crews |
| <input type="checkbox"/> Job Corps | <input type="checkbox"/> Stewardship Contract |
| <input type="checkbox"/> Merchantable Timber Pilot | <input checked="" type="checkbox"/> Other (specify): City of PT water workforce |

21. Will the Project Generate Merchantable Materials? Yes No

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| 22. Anticipated Project Costs |
| a. Title II Funds Requested: \$6,630 (for startup equipment) - \$5,503 Jefferson Co., \$1,127 Clallam Co. |
| b. Is this a multi-year funding request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

23. Identify Source(s) of Other Funding: Wilderness/trails funding sources are available for installation and non-routine maintenance of trail counters. City of Port Townsend has available funding sources to support a part time employee who would collect the data on a routine basis in addition to their routine watershed patrols.

24. Monitoring Plan (provide as attachment)

- a. Provide a plan that describes your process for tracking and explaining the effects of this project on your environmental and community goals outlined above.
- b. Identify who will conduct the monitoring:
- c. Identify total funding needed to carry out specified monitoring tasks (Worksheet 1, Item k):

25. Identify remedies for failure to comply with the terms of the agreement.

If project cannot be completed under the terms of this agreement:

Unused funds will be returned to the RAC account.

Other, please explain:

Project Recommended By:

/s/ (INSERT Signature)

Chairperson

Resource Advisory Committee

Project Approved By:

/s/ (INSERT Signature)

Forest Supervisor

National Forest

Project Cost Analysis Worksheet

Worksheet 1

Please submit this worksheet with your proposal

| Item | Column A Fed. Agency Appropriated Contribution | Column B Requested Title II Contribution | Column C Other Contributions | Column D Total Available Funds |
|----------------------------------|---|---|---|---|
| a. Field Work & Site Surveys | | | | |
| b. NEPA/CEQA | | | | |
| c. ESA Consultation | | | | |
| d. Permit Acquisition | | | | |
| e. Project Design & Engineering | | | | |
| f. Contract/Grant Preparation | | | | |
| g. Contract/Grant Administration | | | | |
| h. Contract/Grant Cost | | | | |
| i. Salaries | 6 days installation and non- routine maintenance of counters by wilderness/trai ls specialist@ \$175/day= \$1,050.00 (Per fiscal year) | | 85 days of city employee collecting data as part of her normal work duties @ 185.00/day= \$15,725.00 (Per fiscal year) | \$16,775 |
| j. Materials & Supplies | | 12 TRAFx infrared trail counters plus startup software= \$6,630.00 (one-time purchase) | | \$6,630 |
| k. Monitoring | 3 days of wilderness/trai ls specialist@ \$175/day= \$525.00 (Per fiscal year) | | | \$525.00 |
| l. Other | | | | |

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|-------------------------------|------------|------------|-------------|----------|
| m. Project Sub-Total | | | | |
| n. Indirect Costs | | | | |
| o. Total Cost Estimate | \$1,575.00 | \$6,630.00 | \$15,725.00 | \$23,930 |

NOTES:

- a. Pre-NEPA Costs
- g. Includes Contracting/Grant Officer Representative (COR) costs. Excludes Contracting/Grant Officer costs.
- i. Cost of implementing project
- l. Examples include overhead charges from other partners, vehicles, equipment rentals, travel, etc.
- n. Contracting/Grant Officer costs, if needed, are included as part of Indirect Costs.

Monitoring Plan for:

Visitor Use monitoring within City of Port Townsend's Drinking Water Watershed(s) Title II Proposal

1.) AN in-depth visitor use statistics analysis document would be produced yearly by USFS trails specialist.

the road was closed west of Logan Pass in late September. Our total vehicle estimate for the Logan Pass exit from the beginning of July to the end of September is 165,333 (Table 6).

Table 6: Eastbound Traffic West of Logan Pass (LPIA) Vehicle Count Statistics: 2012

| Month | VC Data | # Days Monitored | Daily Average | Total Estimate for Month |
|--------------|---------------|------------------|--------------------------|--------------------------|
| July | 16,674 | 8 | 2,084 | 64,612 |
| August | 55,083 | 31 | 1,777 | 55,083 |
| September | 19,235 | 12 | 1,521 | 45,638 |
| Total | 90,012 | 51 | 1,765(total avg.) | 165,333 |

Vehicle activity at the LPIA vehicle counter averaged 1,765 vehicles per day over the course of the monitoring season. The median was 1,803 vehicles. The maximum vehicle count occurred on September 2nd with 2,445 vehicles recorded. Minimum vehicle count took place on September 10th with 1,020 vehicles recorded (Figure 6).



Figure 6: LPIA Daily Vehicle Activity Across the 2012 Season

Sunday averaged the highest percent of weekly vehicle activity with an average of 16.2% of percent weekly vehicle activity. The mean vehicle activity for Sunday was 1,995. Saturday and Monday ranked closely together with 14.8% and 14.9% respectively.

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Saturday averaged 1,827 vehicles and Monday averaged 1,841 vehicles. Friday averaged the lowest percent vehicle activity by week with 13% and a mean of 1,599 vehicles.

Figure 7 displays average hourly vehicle activity at the LPIA vehicle counter. The hourly average was 74 vehicles, with a median of 45 vehicles per hour. The standard deviation was 73.6 vehicles, indicating that hourly vehicle activity varied greatly. The shape of the graph is skewed to the right. Vehicle activity tended to rise sharply from 8 AM until activity peaked at 12 noon. A gradual decline in vehicle activity tended to occur after 1 PM until 8 PM. Maximum vehicle activity tended to occur between 12 noon and 1 PM with an average maximum value of 209 vehicles for the hour.

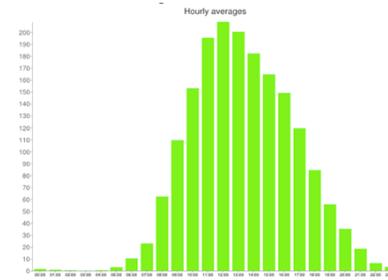


Figure 7: LPIA Hourly Vehicle Activity Averages: 2012

4.2.2 What are the Traffic Flow Patterns for Westbound Traffic West of Logan Pass?

Four vehicle counters were installed on the Going to the Sun Road near Logan Pass. They were set up for the purpose of analyzing traffic flow in the Logan Pass area. Two counters were set up about a quarter mile west of Logan Pass; this location was named LPI1. The other two counters were installed about a quarter mile east of Logan Pass; this location was named LPI2. Each installation location contained vehicle counters that counted traffic traveling east and west. Vehicles counters that counted traffic flowing east were denoted with the letter 'A'. Vehicle counters that counted traffic traveling west were

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Figure 1: example of report format

2.) USFS and city of Port Townsend meet yearly to discuss findings and how they inform management of the area. The information will be discussed in the context of managing recreation impacts within a municipal drinking watershed. Topics could include adequacy of facilities, adequacy of field staff presence, miscellaneous issues that came up the previous year, or whether or not placing limits on visitor use should be considered to protect the wilderness resource.

3.) USFS provides summary report of yearly meeting describing things we have learned or management actions that may be considered as a result of the visitor use knowledge gained through the counters.

TITLE II PROJECT PROPOSAL, PROPOSED TRAIL COUNTER LOCATIONS

