

PROJECT TITLE: **SPARTINA SURVEY AND REMOVAL FINAL REPORT**

DELIVERABLES FOR TASK NO: **TASK 10**

PROGRESS REPORT: ☐ FINAL REPORT ☒

PERIOD COVERED: **July 1, 2009 – June 30, 2010**

DATE SUBMITTED: **June 18, 2010**

**Project Summary:** Skagit MRC partnered with People for Puget Sound (PPS) and the Swinomish Tribal Community to identify tribal sites in need of smaller scale manual removal and train volunteers to conduct kayak-based surveys for invasive *Spartina* using established protocol. PPS hired a part-time intern, Rachel Benbrook, to help with the Sound-wide *Spartina* program. A total of 44 miles of Skagit County shoreline was surveyed and mapped throughout the summer and approximately 58.5 square meters of *Spartina* was found and later treated with herbicide. 15 Volunteers contributed 139 hours to *Spartina* surveys in Skagit County in 2009. The small-scale *Spartina* Dig Day took place August 16, 2009 at Kiket Lagoon where six volunteers contributed a total of 30 volunteer hours to remove all of the *Spartina* was from the lagoon (15 sq).



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**PEOPLE FOR PUGET SOUND**

**COMMUNITY *SPARTINA* EDUCATION AND STEWARDSHIP PROGRAM**

**2009 SKAGIT MARINE RESOURCES COMMITTEE  
FINAL REPORT**

**Skagit County Contract # C20090564**

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**NORTHWEST STRAITS**  
marine conservation initiative



## **INTRODUCTION:**

People For Puget Sound has been involved in the statewide effort to eradicate invasive *Spartina* grasses since 2000. The Community *Spartina* Education and Stewardship Program was supported in part by the Skagit County Marine Resources Committee. Since 2006, this program has focused on recruiting and training volunteer sea kayakers to conduct shoreline surveys for *Spartina anglica* in North Puget Sound, including Skagit County. Among the network of state, county, and tribal *Spartina* controllers, surveys have been repeatedly identified as the most valuable contribution that citizen-based organizations can make to the eradication effort. There is a large and vibrant community of paddlers in the Puget Sound, and kayakers can easily access areas that are difficult to survey by traditional methods. In 2009, People For Puget Sound volunteer kayakers surveyed over 100 miles of North Puget Sound shoreline and identified almost 200 square meters of *Spartina*-including 44 miles and 58.5 square meters in Skagit County. Additionally, a *Spartina* Dig Day was conducted in August of 2009 where volunteers removed around 15 square meters from Kiket Island and the Kiket Lagoon near La Conner.

## **RECRUITMENT:**

Volunteer kayakers were recruited through local kayak clubs and from the general public. Training and program announcements were distributed through: Whatcom Association of Kayak Enthusiasts (WAKE), Hole In The Wall Kayak Club (HITW), Washington Kayak Club, Washington Water Trails Association, Olympic Peninsula Paddlers, and the WSU Beachwatchers in Skagit and San Juan Counties. Recruitment flyers were also posted throughout the county at locations that were frequented by paddlers. Additionally, program announcements were sent to the following publications: San Juan Islander, San Juan Journal, Island Weekly, Islands Sounder, Bellingham Herald, Cascadia Weekly, Ferndale Record Journal, Northern Light, Skagit Valley Herald, Anacortes American, Whidbey News Times, Whidbey Examiner, South Whidbey Record, and Western Front.

## **SURVEY METHODS:**

Experienced kayakers were invited to attend one of ten training sessions that took place in North Puget Sound, including three trainings in Skagit County. These volunteers received formal training from the project coordinator that included information about *Spartina*, proper survey and identification techniques, and kayak safety issues. Each volunteer was given a packet which included all the necessary forms and guidelines to conduct surveys, including a laminated *Spartina* ID Card with detailed instructions on how to identify the plant in the wild. Surveyors were also provided with ziploc bags for storing leaf and stem samples of any potential *Spartina* specimens that needed to be verified by the project manager.

Surveys were conducted during the daylight tidal window of a +3 to a +8 tide in order to maximize *Spartina* exposure. Surveyors recorded the latitude and longitude of any *Spartina* infestations using a GPS unit and entered this data onto the inventory forms. They also recorded additional relevant information that could aid in location and removal- including estimated patch size, dominate substrate, presence of other vegetation, and other descriptive information. Water-based surveyors were encouraged to beach their craft and proceed on foot whenever possible, however, the project manager has

determined with field trials that surveys can be completed successfully from the watercraft when carried out at the appropriate tidal height.

## **RESULTS:**

In 2009, volunteer sea kayakers and program staff conducted a total of 28 *Spartina* surveys in the North Puget Sound, including three trainings and eight surveys in Skagit County. Table 1 illustrates *Spartina* Survey Program results for this year. Fifteen kayakers were involved in *Spartina* surveys in the county, and these volunteers contributed a total of 139 hours of their time to this effort. Valued at \$16.54 per hour, this contribution is worth \$2299.06.

**Table 1: 2009 Skagit County *Spartina* Program Activities**

Skagit County	Partners	Priority Area	Num. of Volunteers	Num. of Vol. hours	Miles Surveyed	<i>Spartina</i> Found (m <sup>2</sup> )
Surveys	--Skagit Noxious Weed Board --Skagit MRC --Hole in the Wall Kayak Club --Skagit WSU Beachwatchers --Swinomish Tribe --Trust For Public Lands	--W. Shore Fidalgo Island --Swinomish Channel region islands ---Cypress and Guemes Islands --outer islands	15	139	44	58.5
Dig Day	--Skagit MRC --Swinomish Tribal Community --Trust For Public Lands	--Kiket Lagoon and Kiket Island	6	30	n/a	15*
Totals:			21	169	44	

\*estimated amount of *Spartina* removed (m<sup>2</sup>)

The data gathered on these surveys was entered into a GIS database and maps were created that describe the survey coverage and location of any *Spartina* found by region and county (See attached maps). Program staff provided these maps to the local *Spartina* control entities, including the Skagit County Noxious Weed Control Coordinator and the Swinomish Tribal Natural Resources Department, as well as to the Washington State Department of Agriculture's *Spartina* Program Manager.

Highlights of this seasons work in Skagit County included extensive survey work on Cypress Island, in partnership with the Washington State Department of Natural Resources. During a two day marathon survey, volunteers and program staff surveyed over 15 miles of Cypress and Guemes Island shoreline. Additionally, program volunteers located previously unidentified *Spartina* infestations in Skagit County on the Dredge Islands north of the Swinomish Channel and on Dot, Little Deadman and Big Deadman Islands near Snee-Oosh Park on the Swinomish Reservation.

On August 16, People For Puget Sound also conducted a small Dig Day at Kiket Island in Skagit County that removed about 15 square meters of *Spartina* from the Kiket Lagoon and the beach nearby. This island and tidal lagoon is set to become a part of Deception Pass State Park by the end of 2009, and was a known site of *Spartina* infestation. Program Staff worked in partnership with The Trust For Public Lands in order to get access to the site, which was still in private ownership at the time. Six volunteers participated in the Dig Day, including the Skagit County Noxious Weeds Aquatic Invasives Specialist- who donated the use of a county van for the day. Also, Skagit MRC member Paul Dinnel brought 4 students from Shannon Point Marine Center to aid in *Spartina* removal. A few short hours of work and all the *Spartina* clones were removed from the lagoon, as well as few on the beach nearby. Volunteers contributed 30 hours of their time for this Dig Day, or \$496.20 worth. In addition to the \$2299.06 of time from surveyors, this brings the total Skagit County volunteer contribution to the program to \$2795.26.

Program staff continued to distribute the "Identifying *Spartina* in Puget Sound and Georgia Basin" laminated ID cards around the region to controllers, stakeholders, user groups, and the general public. *Spartina* Survey Program presentations were made at WSU Beachwatchers groups and also at the West Coast Sea Kayak Symposium in Port Townsend, WA- where the program coordinator exposed an audience of 150 paddlers from all around the region to the issue of invasive *Spartina*. Additionally, a poster demonstrating the results of the last three years of kayak surveys in the North Sound was presented at the 2009 Northwest Straits Commission Annual Conference in Bellingham in November.

## **CONCLUSION:**

The Skagit County Marine Resources Committee has been supporting People For Puget Sound's Community *Spartina* Education and Stewardship Program since 2003. During these years, program staff have trained over 270 people in Skagit County on *Spartina* identification, removal, and survey methods. Since 2007, the program has focused on survey training for kayakers, as these volunteers are especially suited to access the mudflats and outer islands that can be more difficult to survey by traditional methods. In these three years, volunteer paddlers have surveyed almost 100 miles of shoreline in Skagit County, identifying almost 200 square meters of invasive *Spartina*.

This year People For Puget Sound volunteer sea kayakers surveyed over 100 miles of shoreline in North Puget Sound, including 44 miles in Skagit County. This was the most successful year of the program yet, and included noteworthy finds of previously unknown *Spartina* in Whatcom and Skagit County. Program volunteers continue to demonstrate that Puget Sound's vibrant sea kayaking community has a valuable role to play in the statewide eradication of invasive *Spartina*. Program's such as this *Spartina* Survey Program show that trained paddlers can become skilled citizen scientists. This unique program would not be possible without the ongoing funding from the Skagit MRC. Thank You for this support!