South Puget Sound Program Highlights
October – December 2007

The Nature Conservancy is committed to conservation within the South Sound region and the Willamette Valley /Puget Trough/Georgia Basin ecoregion. The Conservancy will continue to perform outstanding stewardship, protect key conservation parcels and promote a conservation community of cooperative partners.

Golden Paintbrush Planting - Glacial Heritage is one of six sites involved in planting the federally endangered golden paintbrush (*Castilleja levisecta*). In this project, funded by US Fish and Wildlife Service and WSDOT, approximately 940 plugs, grown from four different seed sources at two different nurseries were planted. In ensuing years, plant growth and survivorship will be monitored to determine microhabitat preference and seed-source reliability of this rare wildflower. Results of the outplanting protocol of this significant study will illuminate the effects of seed source, associated species, and topography on the performance of *C. levisecta*.

Ted Thomas, USFWS, demonstrates how to remove a plug from its container for TNC's Barbara French and Shauna Starkebaum.

Undertaking a study on this was ambitious to say the least. Getting over 5000 plants installed in a systematic fashion at six sites was no easy task, and required tremendous coordination. It entailed a huge effort by a lot of different folks to get these plants in the ground, and I´m very grateful to everyone who helped make this happen. I can´t wait until spring to begin to see how well the plants will grow at each of the different locations. - Peter Dunwiddie, TNC

The no till seed drill

Direct Seeding of Roemer s Fescue

A new technique was used at three prairie sites this fall, with the intent to enhance overall prairie habitat and establish a native grass. A no till seed drill planted Roemer s fescue seeds on Glacial, Morgan and Cavness in October, for a total of 40 acres. The application rate for the drill is approximately 4lbs of seeds per acre making it faster and more efficient than plug planting by hand. The machine creates grooves in the soil using disc openers, a seed tube delivers seeds into the ground, and then press wheels smooth over the hole. Besides efficient seed placement, the advantage of this equipment is that it reduces soil erosion and conserves seedbed moisture. Seeding at Glacial and Morgan were done following annual prairie burns. The land at Cavness is maintained by cattle grazing, keeping the area clear of invasives and therefore ready for seeding.

In January, the results of the planting effort are visible, with small sprouts coming up. By late spring the medium-sized bunch grasses should be highly visible, and sprouting seed heads by summer 2008. The benefits of establishing these native bunch grasses is that they work well with other native plants, helping them to succeed by preventing the growth of invasives on the prairies. In the future, it is planned to include forb seeds along with the grass seeds using the same method.

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Ft. Lewis and McChord Project

Butterfly Habitat Trials - Enhancing Habitat for Taylor s Checkerspots - The Nature Conservancy has conducted general habitat enhancements for butterflies at Fort Lewis for more than 15 years in the form of controlling invasive weeds, especially Scotch broom and non-native grasses, along with planting native grasses and forbs, on select prairies. Recent developments in captive rearing and translocation of Taylor s checkerspot (*Euphydras editha taylori*) butterflies onto Puget prairies necessitates the acceleration of habitat enhancement activities targeting this federal candidate species. To meet this need, 2007 butterfly habitat enhancements on Fort Lewis emphasized improvements for Taylor s checkerspot at current and future release sites. The majority of this work was undertaken in an experimental fashion to allow comparison of site preparation and maintenance techniques (de-thatching vs. a control and burning in the future) and planting techniques (planting plugs vs. direct seeding) to create suitable habitat. The goal is to create a series of habitat islands for the butterfly within a background matrix of medium to high quality prairie. First year survival of plantings will be evaluated in May 2008.

Enhanced butterfly habitat on Ft. Lewis.

WA Conservation Corps planting experimental plots.

Looking pleased with their work, a group of volunteers gathers for a photo at Tenalquot.

Thurston County Project

Tenalquot Work Day

Within the last year, efforts to restore one of the region s few remaining privately owned native grasslands have accelerated to include regular volunteer events. Tenalquot Prairie, which stretches across the Deschutes and Nisqually watersheds, is strategically located between two significantly larger prairie parcels. During a newly established Saturday volunteer work day new volunteers (including football players, high school students, and a retired microbiologist) joined forces with veteran volunteer conservationists and Nature Conservancy staff on Tenalquot Prairie. This force of conservation helped control invasive species, plant native fescue and eradicate smores. Thank you volunteers!

***Rare Species Project* - Survey of Cooperative Conservation Techniques -** Over the past 4 years, the South Sound program has undertaken an effort to identify and implement specific techniques to facilitate cooperative conservation of rare species. This effort is focused on four federal candidate species that inhabit coastal grasslands: streaked horned lark, Mazama pocket gopher, and Taylor s checkerspot and mardon skipper butterflies. This quarter, we have partnered with Oregon State University to develop and conduct a nation-wide survey regarding experience with various cooperative conservation techniques. We seek to determine what techniques are most frequently employed, how successful are the techniques, and what are the perceived costs and benefits. The targets for these surveys include individuals from conservation organizations, public agencies, and Dept. of Defense land managers. Although considerable amounts of resources, both personnel and financial, are being allocated towards cooperative conservation, there is little information on specific techniques that can facilitate these efforts. This survey will be an initial effort towards cataloging those efforts and evaluating their effectiveness. These results should be of interest to a broad range of conservationists and administrators.

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