

Shillapoo Wildlife Area

Shillapoo Wildlife Area, immediately adjacent to the city and Port of Vancouver, on SR501 and Lower River Road



Remnant oak trees. Oak was the predominant overstory.

This project was proposed and carried out by the Washington Department of Fish and Wildlife. It involved fencing an area and planting native trees and shrubs on approximately five acres within the Shillapoo Wildlife Area that had historically been cleared and grazed under private ownership.

The project was an attempt to create a plant community that resembles what once occurred on the site with oak as the predominant overstory species. The site, located just north of Buckmire Slough and adjacent to SR501, contained several large remnant oak trees. Forest remnants in nearby areas tended to be either dominated by black cottonwood (*populus trichocarpa*) in the low lying sites or oak in the slightly higher areas, like this one.

Benefits

The primary long-term goal of the project was to increase the amount of oak forest habitat available on the area. Today the planting does not appear markedly different than its pre-project condition. However as trees and

shrubs on the site grow, many different wildlife species will begin to use the site. Various species of birds, amphibians, reptiles and mammals will benefit from this project.

Many secondary benefits will be derived from this project; some of which have already become apparent. This project was the first habitat restoration effort on the area and the first involvement of non-hunting-oriented volunteers. A great deal of interest has been generated by the project. The site has been used on different types of tours as an example of the importance of forest habitats and how agencies within a community can work together. Tours included a site visit with the director and management team from Washington Department of Wildlife.

Budget

Proposed – \$17,965
Actual \$20,957.33
Metro/US. Fish and Wildlife grant award – \$8,598

Timeline and tasks

- December 1993 Grant application accepted for funding
- February 1994 Inquiries and bid process begun for oak tree purchase
- March 1994 Fence construction begins, bids for trees completed, pre-project photo points taken
- April 1994 Fence completed, site mowed, 1,200 oak trees planted with volunteer help
- May 1994 Monitored for initial planting success, initial leaf out estimated at 20 to 30 percent.
- June 1994 Continued to monitor plant health, growth and mortality; no change in survival rate was noticed
- July 1994 Washington Conservation Corps crew began weed control work around individual trees and laying plastic mulch material; dehydration was noted, began watering plants
- August 1994 Finished laying plastic mulch, continued watering, recovery of some trees noted
- September 1994 Continued watering, site was mowed to control Canada thistle and facilitate spring work
- January 1995 Photo points taken
- February 1995 Collected bids for understory trees and shrubs
- March 1995 Understory trees and shrubs, except cottonwood, planted by WCC crew; planting success rate was good with high survival
- April 1995 Cottonwood trees planted, monitored shrub survival – still excellent; some oak trees starting to break bud, started project report
- May 1995 Completed draft project report; site mowed for weed control
- Fall 1995 -
- winter 1996 Replanted some oaks that had not survived
- Ongoing Site monitoring, irrigation when needed, exotic plant control



Helpful hints – what worked, what didn't

- Trees and shrubs were planted in clusters, which allowed for easy mowing of the rest of the site using a tractor.
- 3 by 3 foot squares of plastic mulch were placed around the oaks to reduce plant competition and moisture loss. This worked well and probably helped the plants recover from moisture stress more than watering did. Even though this method was effective, it was also extremely labor intensive. Next time, we would use larger dimension sheets, 4 by 4 or larger, and also place the mulch plastic at the same time as the tree was planted.
- A pickup-mounted pump and tank for watering worked very well for a site of this size. This was fairly labor intensive as well. It takes a lot of trips to water 1,200 oak trees spread over five acres with a 100-gallon tank.
- The two-strand barbless wire fence design was an experiment. There was some concerns that cattle grazing in adjacent pastures would challenge the fence, which would be less of a deterrent than barbed wire. After one year, there have been no problems with fence stability or cattle challenges. The barbless wire allows for less painful and dangerous passage by humans.
- Snowberry (*symphoricarpos albus*) and wild rose (*rosa sp.*) were collected from other locations on the site, where they were not wanted. These plants were immediately transplanted to the restoration area. Survival rate of the transplants was good.
- This was the first significant use of volunteers in habitat restoration project by Washington Department of Wildlife. It was a very successful partnership, which we hope to continue on future projects.
- Plant root quality on some of the trees was not great. The vendor gave us 100 extra trees. The extras were smaller than what we wanted but had better root systems for the size of plant and had a higher survival rate. The high mortality rate of the trees was probably due in part to plant quality and the extremely long hot, dry summer of 1994. We recommend visiting a nursery and inspecting the plant stock and roots before purchase.
- The largest ongoing task at the site will be weed control. In retrospect, it may have been wise to take measures to control the exotics prior to planting. One measure taken to reduce weed problems was to minimize soil disturbance. This worked to a limited degree. A small reduction in weed density in small areas has been noted.

Partners

Washington Department of Wildlife

Nine members of the Michael Servetus Universalist Unitarian Fellowship

Citizens

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