February 22, 2024

Coos County Planning Department
2250 North Baxter
Coquille, Oregon 97423

RE: File # ACU-23-074/FP-23-012: Winter Lake Phase III

Dear Coos County Planning Department, Planning Commissioners and Coos County Board of Commissioners:

I would like to thank you for the opportunity to comment on the Winter Lake Phrase III project application by Coos Soil Water Conservation District. I am a landowner in the Beaver Slough Drainage District and as a resident in the area, I do not want any projects which have the potential to increase the mosquito issues we are facing.

This project includes hydrologic bulbs which I believe need to be designed to drain after each irrigation event by the district so that it won't create more mosquito habitat if water is left in the bulbs during the warm summer weather.

I am against any expansion of the Coquille Valley Wildlife area and a portion of this project includes agriculture land targeted for acquisition by ODFW. ODFW has not been good neighbors. From the beginning of the Winter Lake wetland project, Beaver Slough Drainage District, Oregon Department of Fish and Wildlife and The Nature Conservancy assured us there would be no mosquito problems. As residents of the area, our lives are awful during the summer and fall due to the mosquitos. This is a new problem since the wetland project was completed. Mike Gray told us the ODFW has a stock pile of BTI but they haven't used it.

Coquille Watershed said "parrot feather" is choking the waterways in the wetland. The literature says "dense growths of parrotfeather provide breeding areas for mosquitos and will degrade both water quality and habitat for fish and wildlife."

Mosquitos carry diseases. They are impacting our physical and mental health by forcing us to stay indoors during the fly-off times during the summer and fall. Mosquitos are a hazard to drivers when mosquitos are flying around inside their cars.

Solutions: According to the ODFW Vector Control Guidance for Sensitive Areas, there is a process to resolve the mosquito problem.

The Board of Commissioners and/or Coos County Planning needs to ask for "conditions" on this Application: 1) Require the ODFW to utilize their Vector Control Guidance for Sensitive Areas as a guideline to treat the mosquitos in the wetland, 2)BSDD landowners and Bridges Foundation or ODFW should also be required to ensure the drainage of the hydrologic bulbs after each irrigation event to reduce the creation of more mosquito habitat, 3)Any invasive species in the project area need to be eradicated and all equipment is cleaned and free from invasive species prior to construction.

Thank you for your consideration.

Respectfully,

Gail Olsen

Gail Olsen
Garden Valley Landowner

Liz Olsen ERIC OLSEN
Garden Valley landowner

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

FACT SHEET

Freshwater Aquatic Invasive Species in Rhode Island **November 2017**

Parrot Feather

Parrot feather has rubbery leaves that stay in their form out of the water.

Parrot feather can take over a shallow pond.

Species Description and General Information

Parrot feather (*Myriophyllum aquaticum*) is a rooted aquatic plant that colonizes slow moving, nutrient rich waters. Stems rooted in the substrate grow through the water and emerge at the surface, sticking up above the surface at heights 1 inch to 1 foot in the air. Emergent leaves are bright green to bluish green and have a waxy surface. Leaves measure 1/2 inch to 2 inches long, and look like a feather divided with 6-18 leaflet pairs along the main vein of the leaf. Leaves are arranged around the stem in whorls of 4-6 leaves. Leaves are stiff and maintain shape out of water like plastic fish tank plants. Submerged leaves are slightly smaller than leaves above the water and have 10-15 leaflet pairs if present. Inconspicuous flowers form in the axils of emergent leaves. Only female flowers are present in the United States, restricting reproduction exclusively to fragmentation.

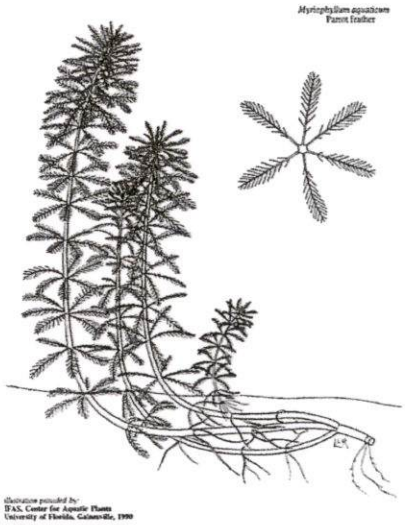
Why is Parrot Feather Considered an Invasive Species?

Because it reproduces easily by fragmentation, parrot feather can easily spread to new locations. It may establish itself in a new waterbody with only a small piece transported by birds or wildlife, or stuck to fishing gear, or boats, or trailers. Invasives grow in large abundances to quickly displace native plants, by competing for space, sunlight and nutrients. Plants can become a nuisance for recreational activities such as boating, fishing and swimming, and can slow water flow, making a breeding ground for mosquitoes.

How Did Parrot Feather Become Established in Rhode Island?

Parrot feather is native to South America. Due to its attractiveness, it was likely first introduced to the United States as an aquarium or water garden plant that escaped cultivation or was dumped into a natural water body. Parrot feather was first observed by DEM in Rhode Island at Pocasset Pond in Johnston Memorial Park, Johnston, RI in 2009. Once introduced to a water body, plant fragments carried by currents, waterfowl or boats can spread the infestation throughout a water body. Because of its robust stems and waxy leaves, plants can survive for long periods of time out of water. Thus, fragments attached to boats, trailers or fishing gear can be transported over long distances and introduced into new water bodies.

What Methods Can Be Used to Control Parrot Feather?



Due to its ability to reproduce through fragmentation, physical control of parrot feather is limited. Mechanical cutting or harvesting can spread plant fragments in a water body, unintentionally exacerbating the infestation. Hand pulling small patches may be effective if entire plants are removed. By law, the manual removal of submerged aquatic vegetation is restricted to that area adjacent to, but no more than fifteen feet from, existing or permitted docks, beaches or swimming areas under the Fresh Water Regulations (Rule 6.02). Manual plant removal outside this area requires a DEM wetlands permit (contact RIDEM Water Quality and Wetlands Restoration Team).

Parrot feather is adapted to water level fluctuations and is known to survive on wet river banks and lake shores. Water level draw downs are not an effective control option.

Chemical control of parrot feather is difficult as the waxy coating of the emergent leaves is difficult for herbicides to penetrate. Thus, eradication of parrot feather in a water body is unlikely once established. Several herbicides demonstrate potential for partial control. The DEM Division of Agriculture licenses the applicators that can apply federally regulated herbicides to treat target invasive plants. Each herbicide treatment requires a specific permit from the Division of Agriculture. The most appropriate means of selecting a specific treatment plan is to consult a lake manager or licensed herbicide applicator, who can provide treatment options and estimate the associated costs. A more detailed survey of the entire water body will likely be needed to develop the most effective and cost efficient long-term management plan.

Google mosquito habitat and parrott feather

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About 1,230,000 results (0.47 seconds)

Showing results for mosquito habitat and ***parrot*** feather
Search instead for mosquito habitat and parrott feather

Dense growths of parrotfeather provide breeding areas for mosquitoes and will degrade both water quality and habitat for fish and wildlife. It fouls intakes used to supply municipal drinking water and irrigation and becomes a navigation hazard. Parrotfeather should never be introduced to open waters.

NC Dept. of Environmental Quality (.gov)
https://www.deq.nc.gov › about › water-supply-planning

Parrotfeather (Myriophyllum aquaticum) - NC DEQ

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USGS (.gov)
https://nas.er.usgs.gov › queries › greatlakes › FactSheet

Species Profile - Parrot feather

Myriophylum aquaticum monocultures provide prime mosquito habitat; higher parrot feather density has been correlated with higher mosquito egg and larval ...

State of Michigan (.gov)
https://www.michigan.gov › plants › aquatic › parrot...

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Invasive.Org
https://www.invasive.org › pubs › midatlantic › myaq

Parrot-Feather (Myriophyllum aquaticum)

It can form dense mats and compete with native aquatic plants, especially in shallow ponds. It also provides **habitat for mosquito larvae, impedes** boats and ...

Coquille Valley Wildlife Area Management Plan

April 22, 2016

Oregon Department of Fish and Wildlife
4034 Fairview Industrial Drive SE
Salem, OR 97302

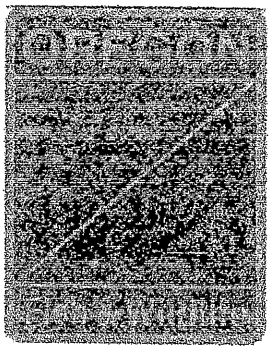
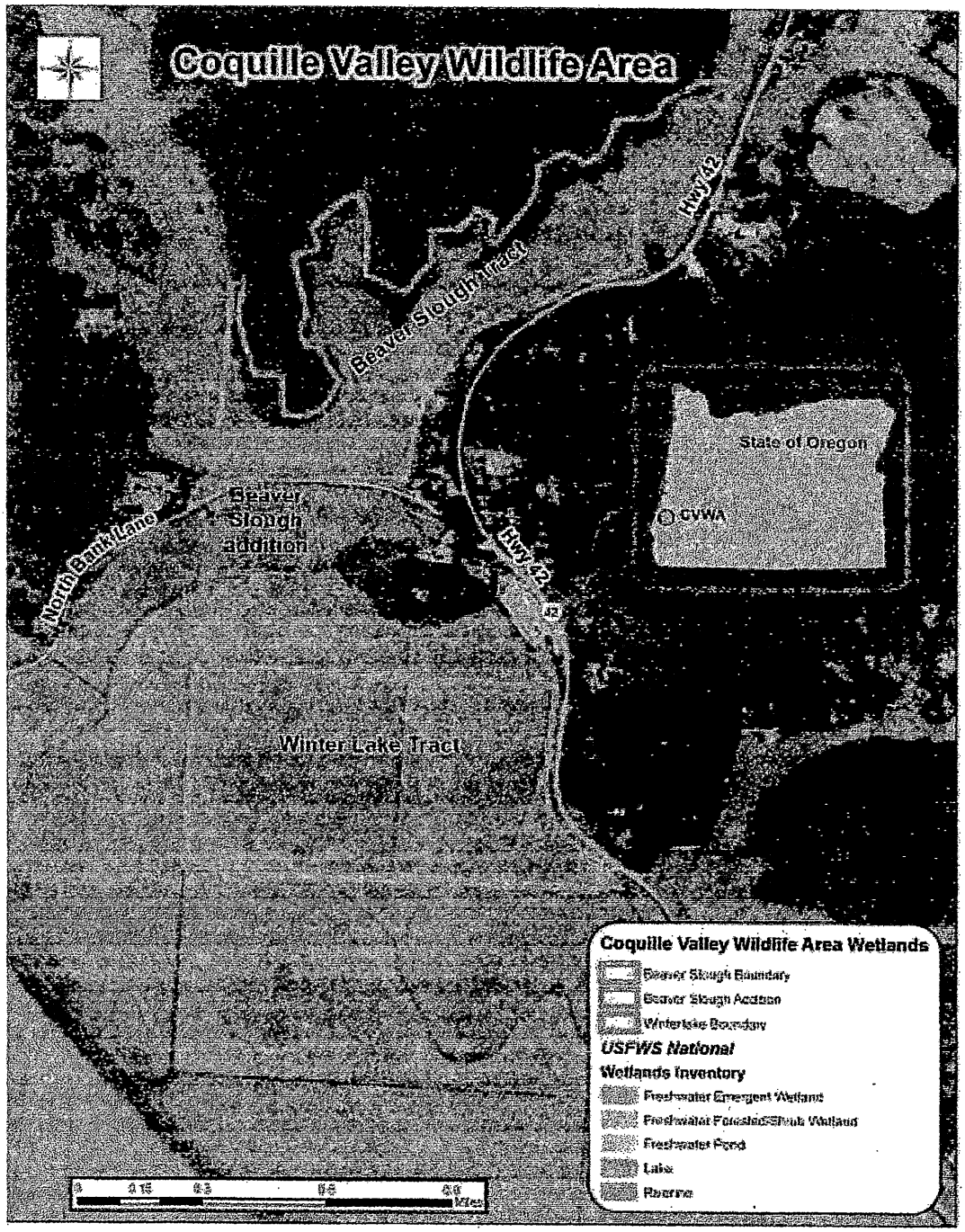


Figure 1. Coquille Valley Wildlife Area, including wetland habitat designation from USFWS National Wetlands Inventory.



Monitoring Section

winter and spring (early December through May). Monitoring will provide a better understanding of migration patterns through and within CVWA, abundance, changes to fish species composition over time and the quality of habitat.

Although the fish monitoring plan is not yet finalized, the following is a list of parameters that will likely be monitored:

- water temperature,
- dissolved oxygen (DO),
- water velocity,
- riparian shading,
- pool availability,
- large wood availability,
- fish passage,
- relative fish abundance,
- species composition.

Fish biologists have established index sites for evaluating fish use based on habitat types and will establish basic monitoring protocols. Continued monitoring efforts will be overseen by UWD. Fish habitat parameters such as water quality and dissolved oxygen can be monitored using passive data loggers. These have been deployed and are periodically downloaded by UWD.
Fish use and presence is monitored through a variety of collection methods, depending on the sites selected and effectiveness of techniques. Methods have included (and likely will continue to include) the following; electrofishing, beach seines, fyke traps, hoop traps, or other nets/traps. Some of the work may be conducted by contractors, graduate students, researchers, or other entities like watershed councils. ODFW is seeking funding and outside expertise to develop and implement scientific studies evaluating both habitat change and fish response to restoration efforts.

Plants
Vegetation photo points are useful for documenting vegetative response to restoration activities. Photo points have been established in Winter Lake Tract to document the progress of restoration activities. Measurements of tree height in areas of vegetative plantings may be established to monitor seedling establishment and survival of willow, ash and other tree and shrubs. These photo points and surveys may also be used to identify exotic plants and direct removal efforts.

Wildlife
Shortly after CVWA lands were acquired by ODFW, wildlife surveys were initiated to begin documenting species and relative abundance of individuals using CVWA lands. These surveys were point count surveys of wildlife species along specific survey routes. These surveys will continue for the life of this plan on a quarterly basis. (See Appendix 1)

Ground-based point count surveys along two transects (one in Beaver Slough and one in Winter Lake) will be conducted to document water bird and other wildlife use of the project area. During these surveys, we will record wildlife species and approximate number of individuals seen. Twelve surveys will be conducted in different months to represent wildlife use during all seasons of the year. After each monthly representative survey has been accomplished, these surveys will continue as quarterly surveys to monitor wildlife response to habitat restoration efforts. Wildlife surveys began before the initiation of restoration activities in Winter Lake Tract and will continue through the life of this plan.

Burrowing and feeding activities by some wildlife (beaver and muskrat) can damage berms, and tree and shrub plantings as well as neighboring private property. Beaver and muskrat populations will be monitored as part of a population management program.

Wildlife Diseases

ODFW will cooperate with the Coos County Health Department and the USFWS to monitor wildlife diseases. Animals showing signs of disease may be tested as they are reported by the public or ODFW depending on the suspected disease involved. Wildlife diseases that may occur in the project area include West Nile Virus (*Flavivrus sp.*), Avian Influenza (*Influenza*), Avian Botulism (*Clostridium botilinum*), Avian Cholera (*Pasturella multocida*), Deer Hair Loss Syndrome and others. ODFW district bioloigsts will coordinate as appropriate with the ODFW veterinarian to respond appropriately to disease issues that arise.

Mosquitoes

Restoration and management of the CVWA are being planned to minimize the possibility of enhancing mosquito populations. ODFW and our restoration partners have consulted with mosquito experts who indicate that proposed management should not create an abundance of salt marsh mosquito (*Aedes sp.*). However, some mosquitoes may respond to the restoration of aquatic habitats on the CVWA. If mosquitos do become an issue, we will follow the ODFW Vector Control Guidance for Sensitive Areas (February 13, 2014).

Engineering of the restoration project will ensure that all lands inundated with tide water will either drain on each tide cycle or will be connected daily with water in the channel on Winter Lake Tract where fish populations exist. This will cause mosquito larvae to be accessible by fish and other predators. Three-spined Stickleback and Mosquitofish populations exist in the waters of CVWA, and these fish are known to effectively reduce mosquito production. If any disconnected water bodies are inadvertently created during the restoration project, ODFW will connect these areas hydrologically in an effort to allow natural predators of mosquitos to access mosquito larvae. If this is not effective for controlling mosquitoes or if hydrologic connection is not possible for some reason, ODFW

will release fish, such as Three-spined Stickleback, into these water bodies to prey on mosquito larvae.

Methods that have been successful in controlling mosquitoes at Bandon Marsh National Wildlife Refuge include the use of *Bacillus thuringiensis isreaelensis* (BTI) and controlling tidal inundation and connectivity in areas where mosquito reproduction is likely to occur. (William Bridgeland, USFWS Pers. Comm). BTI is a bacteria that kills mosquito larvae living in water bodies. Also, the ability to control the extent of tidal inundation on land can be useful in creating a situation that is not advantageous for mosquito reproduction (Dr. Daniel Markowski, Pers. Comm). ODFW intends to explore employing these techniques on CVWA to control mosquito reproduction and plans to monitor effectiveness through trapping mosquito adults and sampling larvae throughout the reproductive season on Winter Lake Tract as appropriate. Depending on need, ODFW may progressively use more aggressive means to control mosquitos.

Water Distribution

Water distribution will be monitored using wells, hydrographs, and water height gages placed in key locations. With neighboring landowner approval and coordination, monitoring sites may include neighboring lands.

Cultural Resources

The Coquille Valley is an area where a significant amount of historic and prehistoric human activity has occurred. Radio carbon dating of archeological sites found in the Coquille Valley indicates Native Americans were present and subsisting in the area at least as far back as 140 A.D. to 420 AD. Middens, or locations where shells and remains of wildlife used for human subsistence have been uncovered in the Coquille Valley, indicate that these people relied on the river, associated wetlands and estuary to find food. During the development of the Ni-les'tun Unit of Bandon Marsh National Wildlife Refuge, many significant archeological sites and objects were found which were related to the history of Native American people stretching far back into prehistory. ODFW is sensitive to the significance of these findings and is committed to preserving and protecting any archeological sites on CVWA. To detect and appropriately protect these sites, ODFW and project contractors will coordinate and consult with the Coquille Indian Tribe, the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians, and the Oregon State Historic Preservation Office.

European Settlement of the Coquille Valley

According to the book *A Guide to the Oregon South Coast History* (Douthit 1999), the first Europeans to settle the Coquille Valley did so in the late 1850s for the purpose of establishing small farms that produced a variety of crops. One of the major crops was hay with livestock such as cattle (*Boss sp.*) and pigs (*Sus sp.*) also being important products. Douthit noted, "By the mid-1890s, dairying had become next in importance to crop production." Douthit also state that "By