

Invasive Plant Species Strategic Work Plan Proposal (5 year plan)

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I. Introduction

- a. What is invasive?
 - i. Invasive plants are introduced species that can thrive in areas beyond their natural range of dispersal. These plants are characteristically adaptable, aggressive, and have a high reproductive capacity. Their vigor combined with a lack of natural enemies often leads to outbreak populations.²
 - ii. “Noxious Weed” means any plant classified by the Oregon State Weed Board that is injurious to public health, agriculture, recreation, wildlife or any public or private property.¹
- b. Why are invasive species a problem?
 - i. Locally: *Noxious invasive weeds are making significant impacts to landowners in and around West Multnomah County and throughout Oregon. Noxious weeds are impacting watersheds where they are displacing native and desirable plants, wildlife habitat, and negatively affecting timber production and the agriculture industry.*¹
 - ii. Watershed Health:
 1. Water quality: An increase in turbidity may result through the establishment of various non-native species due to the decreased ability (when compared to native species) to hold riparian sediments in place. An increase in temperature may also result when forest cover is lost to invasive plants.
 2. Biodiversity: Invasive plant species’ ability to create monocultures in a pre-existing healthy system is one of the most pressing threats. Lower biodiversity makes systems more vulnerable to disease and less adaptable to ecological/climatic changes.
 3. Habitat: Invasive plant species out-compete native plant species, decreasing proper habitat and food for a wide variety of native Oregon wildlife from salmonids to cougars. Invasive plants are implicated in the listing of 42% of all species protected by the Endangered Species Act.
 4. Tree Cover: The decrease in tree cover caused by invasive plant species increases the temperature in streams, decreases the ability of riparian systems to filter impurities and stabilize banks and decreases the habitat available to a wide variety of wildlife.
 - iii. Fire: Fire regimes are affected due to the varying flammability of specific invasive species.
 - iv. Economics: *Damages from invasive species, including only those damages that can be expressed in monetary terms, have been estimated as high as \$ 138*

*billion per year. These damages affect agriculture, rangeland, forests, private homes and yards, human and animal health, food supplies, fishing and boating, outdoor recreation, and many other areas.*³

- v. Erosion Control: Due to shallow root systems of most invasive species, when compared to native species, erosion factors increase.
 - vi. Stormwater: Runoff water quality and flow regime in watersheds is harmed because most weeds are not effective at filtering impurities.
 - vii. Open Space Infrastructure: Open space infrastructure can often be blocked and/or negatively impacted when invasive species form barriers.
 - viii. Native Plants: *Invasive species are thought to have been involved in 70% of this century's native aquatic species extinction, and 42% of current endangered species are impacted significantly by invasive species.*³
- c. Does an invasive plant program fit in the guise of the West Multnomah SWCD Mission?
- i. *The mission of the West Multnomah Soil and Water Conservation District is to conserve soil and water resources; to help landowners and the public with the management of all natural resources in the District through education and technical assistance.*
 - 1. Yes, the invasive species issue directly addresses the mission of West Multnomah SWCD due to the impacts that are listed in section b which affect both *soil and water quality*.
 - 2. Taken from the 2007-2008 WMSWCD Annual Work Plan (pg. 5), Task #6 Noxious Weed Control:
 - a. *Coordinate and conduct weed control on private lands in the West Hills, particularly Garlic Mustard and Japanese Knotweed in coordination with public and private landowners.*
 - b. *Participate in the 4-County Cooperative Weed Management Area.*
 - c. *Assist the No Ivy League in ivy control throughout the District.*
 - d. *Work with ODFW and the Sauvie Island Drainage Company to control invasives on Sauvie Island.*
 - e. *Provide weed identification and control assistance to landowners.*
 - f. *Organize a "Board Work Day" for Board members to work together on a site.*

II. Existing District Invasive Species Projects

- a. Through current projects a small portion of District landowners' knotweed and small dispersed patches of other riparian invasives have been treated.

- b. There is little data to prove if District treatment was effective in eradicating invasive species because there was little-to-no initial “on the ground” survey work conducted.
- c. Current projects generally address the invasive species issue through a patchwork control method instead of a District-wide strategic process. This is an issue due to the fact that invasive species travel from the source via waterways, roadways and other pathways through an array of vectors.
- d. There is currently no base funding to provide seed money and emergency funds for a complete invasive species program for District residents.

III. Proposed Work Plan - General

- a. Inventory
 - i. Survey where the county-listed Early Detection and Rapid Response riparian weed problems are located so that the District and its partners may more affectively strategize its education, control, restoration and funding efforts.
 - ii. The weed inventory will use GPS to locate the listed weeds and record basic site information.
 - iii. The weed inventory will be conducted on one sub-watershed (depending on size/accessibility) per summer via a variety of methods including an “on the ground” survey crew or a watershed-wide phone and mailing campaign.
 - iv. Help manage the Oregon Invasive Species Hotline and confirm sightings.
- b. Assessment
 - i. Following a watershed weed inventory, the collected data will be mapped and interpreted.
 - ii. Priority areas for education, control, restoration and funding efforts will be determined and reported on.
- c. Coordination
 - i. All information collected via this survey will be sent to WeedMapper (<http://www.weedmapper.org/>) and the 4-County Cooperative Weed Management Area (CWMA) so that it is available to all of our partners.
 - ii. Pending funding, additional reporting requirements may occur to partners.
 - iii. West Multnomah SWCD will report on its findings at 4-County CWMA meetings in an effort to coordinate with other Districts, agencies and Watershed Councils.
- d. Education and Outreach
 - i. Education and Outreach will be focused on communities that are suffering from the inventoried weeds via community organizations, such as watershed councils and neighborhood associations as well as focused mailings and workshops.
- e. Funding
 - i. External Funding:

1. Control efforts will be utilized as a tool to pursue funding on a watershed as well as sectional (i.e. group of landowners) scale with monies focused on such “on-the-ground” efforts (OWEB, OSWB, and City/Metro Grants).
 2. The various partnerships that have been formed will be utilized to obtain watershed wide control and restoration funds (i.e. METRO reimbursement).
 3. Landowners participating in the District’s weed control programs will be asked to either provide ½ of the in-kind labor required on their property or ½ of the cash match to control invasives on their property.
- ii. Internal Funding:
1. Emergency funds to treat EDRR species as well as to serve as seed monies for specialized focus areas (see below) will be earmarked by the District to ensure program success and sustainability.
 2. District funds will be used to conduct watershed-wide inventories.
 3. District funds will be utilized for educational mailings and brochures.
 4. When available District funds will be leveraged through available grants and sponsors.
 5. Support partner efforts through District grant programs.
- f. Control and Restoration
- i. An Integrated Pest Management (IPM) approach that is in concert with the County and State Best Management Practices (BMPs) will be utilized by West Multnomah SWCD staff and partners.
 - ii. A revegetation (native plant restoration) plan will be included for all controlled sites to limit future growth of invasive plants and restore ecosystem services.

IV. Program Focus Areas (Priorities shown in descending order)

- a. Early Detection and Rapid Response (EDRR)
- i. The EDRR program removes small patches of newly establishing highly aggressive plants.
 - ii. Early detection and rapid response (EDRR) efforts increase the likelihood that invasions will be addressed successfully while populations are still localized and levels are not beyond that which can be contained and eradicated.
 - iii. Costs associated with EDRR efforts are typically far less than those of long-term invasive species management programs.
 - iv. This program will be conducted in coordination with East Multnomah Soil and Water Conservation District and the City of Portland Bureau of Environmental Services.
 - v. This program will focus on a small list of emerging species that the District will offer to treat after obtaining permission and landowner in-kind agreements (see above).

- b. Strategic Partner Efforts
 - i. Support and coordinate with partners throughout the District that have an important role in invasive species management.
 - ii. Current key strategic partners now include West Willamette Restoration Partnership (Backyard Habitat Program), City of Portland Bureau of Environmental Services, SOLV, SWNI, TRLC, East Multnomah Soil and Water Conservation District, and 4-County Cooperative Weed Management Area, among others.
- c. Demonstration Projects & Education/Outreach Efforts
 - i. Priority projects will be those in high-traffic public areas where land managers want to use invasive weed control & restoration as an educational tool.
 - ii. Potential demonstration projects must agree to participate in outreach including the posting of educational signage and tours and high priority will be given to land managers who want to organize volunteer events and educational opportunities.
 - iii. Opportunities to develop and showcase educational materials will be pursued.
- d. Rare and Declining Wildlife Habitat & Linkage Protection
 - i. Weeds often travel through valuable wildlife corridors and destroy vital habitats as well as threaten public open spaces.
 - ii. Invasive species infestations abutting valuable wildlife habitat (i.e. public open spaces, parks, conserves) and linkages (trails and waterways) will be a priority for control.
 - iii. Healthy forestlands committed to a conservation plan will be a priority, with riparian forest the highest priority for forested lands.
 - iv. Any area that is known to provide habitat considered “rare and declining” as well as any habitat known to support sighted threatened or endangered species and committed to a conservation plan will be of the highest priority for this category.

5 YEAR PROGRAM OUTLOOK			
Program Aspect	Dates	Focus Watersheds	Outcomes
Inventory, Education & Outreach, Coordination, Control	2008-09	McCarthy Creek Main Stem	Data will be shared with partners, control and restoration plans will be developed through partnership meetings, education and outreach will be coordinated with interested organizations, and control will continue on the main stem McCarthy Creek.
Inventory, Education & Outreach, Coordination, Control & Restoration	2009-10	McCarthy Creek Main Stem & Tributaries	Data will be shared with partners, control and restoration plans will be developed through partnership meetings, education and outreach will be coordinated with partners, restoration. Control will continue on the main stem McCarthy Creek and begin on its tributaries.
Inventory, Education & Outreach, Coordination, Control & Restoration	2010-11	McCarthy Creek & Balch Creek Tributaries	Data will be shared with partners, control and restoration plans will be developed through partnership meetings, education and outreach will be coordinated with partners, and control will begin on the tributaries to Balch Creek. Restoration and control efforts will continue on McCarthy Creek.
Inventory, Education & Outreach, Coordination, Control & Restoration	2011-12	Balch Creek Tributaries and Stem	Data will be shared with partners, control and restoration plans will be developed through partnership meetings, education and outreach will be coordinated with partners, and control and restoration will be conducted on the tributaries to Balch Creek. Control will begin on the main stem Balch Creek. Restoration efforts will continue on McCarthy Creek.
Inventory, Education & Outreach, Coordination, Control & Restoration	2012-13	Balch Creek & Miller Creek Tributaries	Data will be shared with partners, control and restoration plans will be developed through partnership meetings, education and outreach will be coordinated with partners, and control and restoration will be conducted on Balch Creek. Control will begin on the tributaries to Miller Creek. Restoration efforts will continue on McCarthy Creek and begin on Balch Creek.

REFERENCES SITED

- 1) 2007 Noxious Weed Policy, ODA Noxious Weed Control Program, February 2007.
- 2) USDA National Agricultural Library. National Invasive Species Information Center. <http://www.invasivespeciesinfo.gov/plants/main.shtml> 7/04/07.
- 3) US EPA Watershed Academy Web. <http://www.epa.gov/watertrain/invasive.html> 8/18/03.