

## **Prevent and respond to the introduction of freshwater and terrestrial invasive species**

**Draft 9/8/11**

### **The Challenge**

History shows that it is significantly less expensive and more effective to prevent or rapidly respond to introductions of invasive species than to control and eradicate them once they have become established. The goal of this strategy is to 1) prevent the introduction of new high-priority, high-risk invasive species to freshwater and terrestrial ecosystems; 2) rapidly respond when new priority invasive species are detected; 3) stop invasive species already here from spreading to other locations; and 4) completely eliminate them as soon as possible, wherever possible.

Accomplishing these goals requires the following elements:

- A forum to provide policy-level planning and direction for regional invasive species efforts and coordination, collaboration, and information sharing among federal, state, tribal, local, and private partners
- Education and outreach that increases awareness of the invasive species problem and offers solutions
- A Puget Sound Basin early detection and rapid response system
- Prevention efforts that target the highest risk pathways
- Maintained or enhanced programs to control, contain, or eradicate existing infestations
- Asking and answering research questions that fill critical information gaps

### **Relationship to recovery targets**

The recovery target most related to control of freshwater invasive species is insects in freshwater, as they indicate biological health of wadeable, lowland streams. The target states that by 2020, 100 percent of Puget Sound lowland stream drainage areas monitored with baseline B-IBI scores of 42-46 or better retain these “excellent” scores and mean B-IBI scores of 30 Puget Sound lowland drainage areas improve from “fair” to “good.” Control of invasive species in fresh water also likely will contribute towards achieving recovery targets for southern resident killer whales and wild Chinook salmon.

### **A10. Prevent and respond to the introduction of freshwater and terrestrial invasive species.**

#### **A10.1 Prevent and rapidly respond to the introduction and spread of invasive species.**

##### *Capacity to support the Invasive Species Council*

A key element of this strategy is maintaining capacity to support the Washington Invasive Species Council’s role to provide outreach and policy-level planning, direction, coordination, and information sharing among member agencies and stakeholders. This provides structure and infrastructure for coordinated efforts to prevent and manage invasive species. The Washington Invasive Species Council serves as the forum for providing coordinated policy-level planning and direction on invasive species. Major funding sources include the Vessel Response Account and contributions from member agencies.

### *Basin-wide detection and rapid response system*

A second element is to develop and implement a basin-wide detection and rapid response system to address invasive species risks. This enables early detection of - and rapid response to - invasive species in the Puget Sound Basin before becoming they become established and widespread. Related ongoing programs include Zebra/Quagga mussel monitoring, boat inspections, Ecology's early detection grant program, Washington State Noxious Weed Control Board's (WSNWCB) Class A grant program, and DNR and WSDA's insect and disease surveillance and control. Funding sources include the Aquatic Invasive Species Prevention and Enforcement Account, Freshwater Aquatic Algae Control Account, general fund (GF-S), and federal grants.

### *Hull fouling in freshwater ecosystems*

A third element is minimizing the risks associated with hull fouling, a significant pathway for the introduction and spread of freshwater invasive species.

### *On-going efforts to contain, control, and eradicate existing infestations of invasive species*

A fourth element of this strategy is to support and enhance ongoing efforts to prevent introductions of invasive species and stop their spread. Ongoing programs include the County Noxious Weed Control Boards, Ecology's freshwater weed control grants, and Agency weed management per RCW 17.10. Funding sources include GF-S and the Freshwater Aquatic Algae Control Account.

### **Performance Objectives for Ongoing Programs**

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

### **Near-Term Actions**

A10.1 NTA 1: The Recreation and Conservation Office will secure on-going funding for Council coordinator.

*Performance metric: done or not*

A10.1 NTA 2: The Recreation and Conservation Office will implement key recommendations for the Puget Sound, as identified by the Invasive Species Council, which will prevent the introduction and spread of priority invasive species.

*Performance metric:*

A10.1 NTA 3: The Recreation and Conservation Office and WDFW will provide and strengthen invasive species outreach to engage stakeholders, close pathways, build community support, and maintain coordination and collaboration among partners.

*Performance metric:*

A10.1 NTA 4: The Invasive Species Council will expand baseline assessment to include all 50 of the Council's priority invasive species.

*Performance metric: done or not; number of priority species included*

A10.1 NTA 5: The Invasive Species Council will conduct a risk assessment of the full range of invasive species pathways in the Puget Sound Basin.

*Performance metric: done or not*

A10.1 NTA 6: The Invasive Species Council will continue partnerships with the Oregon and Idaho invasive species councils to formulate regional policy recommendations and a region-wide strategic plan.

*Performance metric: done or not*

A10.1 NTA 7: The Invasive Species Council and PSP will build and oversee an early detection/monitoring program for priority invasive species in the Puget Sound Basin.

*Performance metric: done or not*

A10.1 NTA 8: WDFW will develop a plan for responding to a zebra/quagga mussel invasion in the Puget Sound Basin.

*Performance metric: done or not*

A10.1 NTA 9: The Recreation and Conservation Office will enhance capacity for response by creating an emergency response fund available to state, local, and tribal governments and developing an MOU among agencies responsible for invasive species response.

*Performance metric: done or not, funded or not*

A10.1 NTA 10: The Recreation and Conservation Office will join existing efforts in California and Oregon to create a regional GIS-based, all-taxa invasive species mapping tool focused on serving the needs of land managers, regional planners and others working to prevent, control or manage invasive species.

*Performance metric: done or not? Is there a better outcome we could measure here, how many species are mapped in the new tool, maybe?*

A10.1 NTA 11: WDFW will educate recreational boat owners and provide incentives for more frequent cleaning of boat hulls in freshwater marinas in the Puget Sound Basin.

*Performance metric: done or not; number of education events?; frequency of boat hull cleaning (is there any data on this?)*

A10.1 NTA 12: Washington Department of Agriculture will increase funding to WSDA invasive knotweed grant program.

*Performance metric: done or not; amount increase? Number of knotweed grants? Amount of knotweed destroyed/acres recovered?*

A10.1 NTA 13: Washington State Noxious Weed Control Board and Ecology will increase funds for Class A noxious weed eradication projects.

*Performance metric: done or not; amount increase? Number of class A projects implemented? Volume/amount of noxious weeds eliminated?*

A10.1 NTA 14: WDFW will develop and implement management plans to stop New Zealand mud snails from spreading including strategies for control and eradication.

*Performance metric: done or not.*

### **A10.2 Answer key invasive species research questions and fill information gaps.**

*Key Questions: How invaded is the Puget Sound Basin? What is the full extent of the problem and level of risk? Use this information as a means to develop future, more targeted, strategies.*

This strategy provides a strong scientific basis for managing a serious threat to the Puget Sound Basin and its ecological health, understanding the effects of climate change on the spread and distribution of invasive species in freshwater and terrestrial ecosystems, and targeting specific pathways and species for management. Organizations that will play a role in answering these questions include the Puget Sound Science Panel and Puget Sound Institute.

#### ***Performance Objectives for Ongoing Programs***

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

#### ***Near-Term Actions***

A10.2 NTA 1: The Recreation and Conservation Office and PSP will identify key areas and ecosystems in the Puget Sound for invasive species monitoring.

*Performance metric: done or not*

A10.2 NTA 2: The Recreation and Conservation Office and PSP will conduct a risk assessment to assess environmental and economic impacts of invasive species in the Puget Sound Basin and incorporate short-term climate change considerations.

*Performance metric: done or not*