

## A0.1 References and Background Research\*

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## A0.2 Organizations Contacted for the Baseline Assessment Project

Organization	Type of Organization	Contacted** (Y/N)	Surveyed*** (Y/N)
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**Project Participation Status\*:** Yes

Bellingham Parks & Recreation Department	City	Y	Y
Carnegie Mellon University	Research	Y	N
Conservation District, Clallam County	County	Y	Y
Conservation District, Jefferson County	County	N	Y
EarthCorps	NGO	Y	Y
Herrera Environmental Consultants	Private	Y	N
King County Department of Natural Resources & Parks	County	Y	Y
King County Lakes Stewardship	County	Y	N
Kitsap County	County	Y	Y
Metro Parks Tacoma	City	Y	Y
Mountains to Sound Greenway	NGO	Y	Y
Nahkeeta Northwest	NGO	Y	Y
National Forest, Mt. Baker-Snoqualmie	Federal	Y	N
National Park, Mount Rainier	Federal	Y	N
National Park, North Cascades	Federal	Y	N
National Park, Olympic	Federal	Y	N
NOAA Fisheries	Federal	Y	N
Northwest Indian Fisheries Commission	Tribe	Y	Y
Noxious Weed Control Board, Clallam County	County	Y	Y
Noxious Weed Control Board, Island County	County	Y	Y
Noxious Weed Control Board, Jefferson County	County	Y	Y
Noxious Weed Control Board, King County	County	Y	Y
Noxious Weed Control Board, Kitsap County	County	Y	Y
Noxious Weed Control Board, Lewis County	County	Y	Y
Noxious Weed Control Board, Mason County	County	Y	Y

\* "Project Participation Status" = information and/or data were included in summaries, analyses, or activities referenced in report

\*\* "Contacted" = responded to survey or contacted through follow-up outreach

\*\*\* "Surveyed" = included in original online survey (Fall 2010)

Organization	Type of Organization	Contacted** (Y/N)	Surveyed*** (Y/N)
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**Project Participation Status\*: Yes**

Noxious Weed Control Board, Pierce County	County	Y	Y
Noxious Weed Control Board, San Juan County	County	Y	Y
Noxious Weed Control Board, Skagit County	County	Y	Y
Noxious Weed Control Board, Snohomish County	County	Y	Y
Noxious Weed Control Board, Thurston County	County	Y	Y
Noxious Weed Control Board, Washington State	State	N	Y
Noxious Weed Control Board, Whatcom County	County	Y	Y
Oregon State University	Research	Y	N
People for Puget Sound	NGO	Y	Y
Portland State University	Research	Y	N
Puget Sound Partnership	State	N	Y
Reef Environmental Education Foundation	NGO	Y	N
San Juan County Public Works	County	Y	N
Seattle Urban Nature Project (now EarthCorps)	NGO	Y	N
Skagit County Public Works	County	Y	N
Skokomish Tribe	Tribe	Y	Y
Snohomish County Surface Water Management	County	N	N
Stillaguamish Tribe	Tribe	Y	Y
Swinomish Tribe	Tribe	Y	N
Tulane University	Research	Y	N
University of Washington	Research	Y	Y
University of Washington - Friday Harbor Labs	Research	Y	Y
University of Washington Herbarium, Burke Museum	Research	Y	N
US Department of Agriculture	Federal	Y	N
US Fish & Wildlife Service	Federal	Y	Y
US Forest Service - Mount Baker-Snoqualmie National Forest	Federal	Y	Y

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Organization	Type of Organization	Contacted** (Y/N)	Surveyed*** (Y/N)
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**Project Participation Status\*: Yes**

US Forest Service - Olympic National Forest	Federal	Y	N
US Geological Survey	Federal	Y	Y
Vashon/Maury Island Land Trust	NGO	Y	Y
WA Department of Agriculture	State	Y	Y
WA Department of Ecology	State	Y	Y
WA Department of Fish & Wildlife	State	Y	Y
WA Department of Natural Resources	State	Y	Y
WA Department of Transportation	State	Y	Y
WA State Parks & Recreation Commission	State	Y	Y
Washington Sea Grant	State	Y	Y
Washington State University	Research	N	Y
Washington State University Extension	State	N	Y
WSU King County Extension	Research	N	Y

**Project Participation Status\*: No**

Association of Washington Cities	Regional	N	Y
Audubon Society Seattle	NGO	N	Y
Backyard Wildlife Habitat	Federal	Y	Y
Bainbridge Island Land Trust	NGO	N	Y
Bellevue Stream Team	City	N	Y
Capitol Land Trust	NGO	Y	Y
Cascade Land Conservancy	NGO	N	Y
Chehalis River Basin Land Trust	NGO	N	Y
Citizens for a Healthy Bay	NGO	N	Y
City of Black Diamond	City	N	Y
City of Sammamish	City	N	Y
Clark County	County	N	Y

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Organization	Type of Organization	Contacted** (Y/N)	Surveyed*** (Y/N)
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**Project Participation Status\*: No**

Clark County Parks Department	County	N	Y
Columbia Land Trust	NGO	N	Y
Conservation Commission	State	N	Y
Conservation District, Clark County	County	N	Y
Conservation District, King County	County	Y	Y
Conservation District, Pierce County	County	Y	Y
Conservation District, San Juan County	County	N	Y
Conservation District, Thurston County	County	N	Y
Conservation District, Whidbey Island	County	N	Y
Conservation District, Mason County	County	N	Y
Conservation Northwest	NGO	N	Y
Dungeness River Audubon Center	NGO	N	Y
Friends of Gray's Harbor	NGO	N	Y
Friends of Hylebos Wetlands	NGO	Y	Y
Friends of Lower White River	NGO	Y	Y
Friends of the Cedar River Watershed	NGO	Y	Y
Friends of the Deschutes	NGO	N	Y
Friends of the San Juans	NGO	N	Y
Great Peninsula Conservancy	NGO	Y	Y
Harbor Wildlife	Regional	N	Y
Hood Canal Coordinating Council	Regional	N	Y
Hood Canal Salmon Enhancement Group	Regional	N	Y
Island County Shore Stewards	County	N	Y
Issaquah Alps Trail Club	NGO	N	Y
Jamestown S'Klallam Tribe	Tribe	N	Y
Jefferson Land Trust	NGO	Y	Y

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Organization	Type of Organization	Contacted** (Y/N)	Surveyed*** (Y/N)
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**Project Participation Status\*: No**

Kitsap County Parks & Recreation	County	N	Y
Kitsap County Stream Team	County	N	Y
Lower Columbia River Fish Enhancement Group	Regional	N	Y
Lummi Island Heritage Trust	NGO	Y	Y
National Wildlife Federation	NGO	N	Y
Nisqually Indian Tribe	Tribe	N	Y
Nisqually River Foundation	NGO	Y	Y
Nisqually Stream Stewards	NGO	N	Y
Nooksack Salmon Enhancement Association	Regional	N	Y
North Cascades Institute	NGO	N	Y
North Olympic Land Trust	NGO	Y	Y
Noxious Weed Control Board, Clark County	County	N	Y
Noxious Weed Control Board, Columbia County	County	N	Y
Noxious Weed Control Board, Cowlitz County	County	Y	Y
Noxious Weed Control Board, Grays Harbor County	County	Y	Y
Noxious Weed Control Board, Pacific County	County	N	Y
Noxious Weed Control Board, Skamania County	County	Y	Y
Noxious Weed Control Board, Wahkiakum County	County	N	Y
Pacific Science Center	NGO	N	Y
Pacific Shellfish Institute	NGO	N	Y
Pacific States Marine Fisheries Commission	Federal	Y	N
Padilla Bay Reserve	Federal	N	Y
Pierce County Biodiversity Alliance	County	Y	Y
Pierce County Public Works and Utilities, Water Programs	County	N	N
Port Townsend Marine Science Center	NGO	N	Y
Puget Sound Action Team (now Puget Sound Partnership)	State	N	N

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Organization	Type of Organization	Contacted** (Y/N)	Surveyed*** (Y/N)
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**Project Participation Status\*: No**

Puget Sound Restoration Fund	NGO	N	Y
Puyallup River Watershed	County	N	Y
San Juan County Marine Resources Committee	County	N	Y
Seattle Aquarium	Private	N	Y
Seattle Parks & Recreation Department	City	Y	Y
Seattle Public Utilities	City	Y	N
Shoreline Parks & Recreation Department	City	N	Y
Sierra Club	NGO	N	Y
Skagit Land Trust	NGO	N	Y
South Sound GREEN (Global Rivers Environmental Education Network)	NGO	N	Y
Squaxin Island Tribe	Tribe	N	Y
Stewardship Partners	NGO	N	Y
Stilly-Snohomish FETF (Fisheries Enhancement Task Force)	NGO	Y	Y
Streamkeepers of Clallam County	County	N	Y
Tahoma Audubon Society	NGO	N	Y
Taylor Shellfish	Private	N	Y
The Evergreen State College	Research	Y	Y
The Nature Conservancy	NGO	N	Y
Trust for Public Land	NGO	N	Y
Tulalip Tribe	Tribe	N	Y
Volunteers for Outdoor Washington	NGO	N	Y
WA Invasive Species Coaliton	State	N	Y
Washington Native Plant Society	NGO	N	Y
Washington State Association of Counties	Regional	N	Y
Washington Wildlife & Recreation Coalition	NGO	N	Y
West Sound Watersheds Council	Regional	Y	N

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**Project Participation Status\*: No**

Whatcom Land Trust	NGO	N	Y
Whidbey Island Wildlife Habitat Project	Regional	N	Y
Wilderness Society Northwest Region	NGO	N	Y
Woodland Park Zoo	City	Y	Y
WSU - Beach Watchers	Research	N	Y
WSU Island County Extension	Research	N	Y
WSU Jefferson County Extension	Research	N	Y
WSU Mason County Extension	Research	N	Y
WSU Mt Vernon Station	Research	N	Y

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# Data files for inclusion in BAP - summarized by spatial extent

DataID	filename	Description
<b>Brazilian elodea</b>		<b>12 data files</b>
<i>Washington State</i>		
D026	Brazilian_elodea_dmap2003.pdf	Map of Brazilian elodea distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.
<i>Puget Sound Basin</i>		
G036	G036.shp	Shapefile on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.
<i>County, Skagit</i>		
R005	08 Report_Clear Beaver Lakes.pdf, 2009 Year End Report LMD4.pdf	2008 Annual Report on management of other invasives in these Skagit County lakes references one small, floating, dead patch of Brazilian elodea on Beaver Lake; 2009 report does not describe any Brazilian elodea.
R017	Final Report Big Lake 2002 Final.pdf, Big Lake Survey 2003.pdf, 2003 Final Report.pdf, 2004 report.pdf, Big Lake 2006 Report.pdf, Big Lake Year End 2007.pdf, 08 Big Lake Year End Report.pdf, 2009 Big Lake Year End Report.pdf	Series of annual reports from Big Lake Management district in Skagit County on surveys and treatment for Brazilian elodea from 2002-2009. Appears not to be present in 2009.
<i>County, San Juan</i>		
G086		Observation of brel near pond on Turn Point, east shore of San Juan Island.
<i>County, King</i>		
G026	G026.shp	Shapefile showing Brazilian elodea observed in King County 2008-2009, with information on presence, area, cover class, and habitat type.
I001	SammR_egeden_worststretch09.JPG, P1010040.JPG, P1010054.JPG, P10100044.JPG	Photos from informal surveys for Brazilian elodea on Sammamish River (AKA Sammamish Slough), conducted by K. Messick of King County.
O009	Katie Messick on elodea in KC.doc	Brel presence in Lake Dolloff, Sammamish Slough/River, Lake Sammamish, Lake WA, Ship Canal, Lake Union. Haven't seen brel in smaller lakes.
<i>County, Jefferson</i>		

DataID	filename	Description
O008	no file	Anecdotal reports of Brazilian elodea in Lake Leland in Jefferson County from C. Lucero and E. Dixon.

*County, Island; County, Jefferson; County, San Juan; County, Skagit*

D006	Giblin-elodea.doc	UW Herbarium records of Brazilian elodea presence, 1994-2006 (1994 with J. Parsons).
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*County, Island*

R006	2008 Lone Lake Egeria Eradication Project.doc	Annual report on Brazilian elodea eradication efforts and detailed water quality observations in Lone Lake, Island County; submitted to Ecology.
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*City, Kent*

R007	KentReporterArticle_6408.pdf	News article on the presence and management of Brazilian elodea in Lake Fenwick in Kent.
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## gypsy moths

**8 data files**

*Washington State*

G042	G042.shp (GMDetects_07_09.shp)	Shapefile showing all European gypsy moth detections via WSDA survey efforts from 2007, 2008, and 2009.
G043	G043.shp (GypsyMoth_WSDA2007.shp)	Shapefile showing all WSDA trap placements statewide, 2007.
G044	G044.shp (GypsyMoth_WSDA2008.shp)	Shapefile showing all WSDA trap placements statewide, 2008.
G045	G045.shp (GypsyMoth_WSDA2009.shp)	Shapefile showing all WSDA trap placements statewide, 2009.
O010	none	Data files from WSDA surveys 1972-2006 are in paper forms, with addresses but no gps coordinates for the ~25,000 traps set annually. All detections are shown in G41 and G42.
P004a	GM Summary Report.pdf	WSDA's annual report on gypsy moth surveys. See also at <a href="http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports">http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports</a>
P004b	GM Survey.pdf	WSDA presentation on gypsy moth surveys.

*County, King; County, Pierce; County, Thurston*

G041	G041.shp (AGMDetectionsArchiveWSDA.shp)	Shapefile showing all Asian gypsy moth detections recorded via WSDA survey efforts from 1972 - present day.
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## hydrilla

**8 data files**

*County, King*

DataID	filename	Description
D007	Giblin-hydrilla.doc	UW Herbarium records of hydrilla presence, 1995, 2002 (with J. Parsons).
G035	G035.shp (from pl_all_points.shp)	Shapefiles for each year that hydrilla was present (2003-2006) since King County took over eradication efforts at Pipe & Lucerne Lakes. Hydrilla has been absent for 3 yrs in Pipe, 5 yrs in Lucerne.
G037	G037.shp	Data on hydrilla presence in Pipe & Lucerne Lakes, from J. Parsons surveys.
I002	IMG0821.JPG, DSCN1486.JPG, SCUBA 6_24 3.JPG	Photos from King County of hydrilla eradication program (informational sign, project divers) in Pipe Lake.
R008	FPE-G0300219.doc	Annual report information submitted to Ecology on Pipe & Lucerne Lake hydrilla eradication.
R009	HydrillaApr09_Oct09.doc	Most recent annual report submitted to Ecology on Pipe & Lucerne Lake hydrilla eradication from King County.
R010a	Hydrilla Reports from KC email.pdf	Annual hydrilla eradication reports '03-'07 online at <a href="http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx">http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx</a> .
R010b	2008_Annual_Report.pdf	Annual hydrilla eradication report from 2008 (was not yet online at time of data collection).

## knapweeds

39 data files

### *Washington State*

D002	Giblin-knapweed.doc	UW Herbarium records of knapweed presence, 1923-2007.
D027	Brown_knap_dmap2003.pdf	Map of brown knapweed ( <i>C. jacea</i> ) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.
D028	Black_knap_dmap2003	Map of black knapweed ( <i>C. nigra</i> ) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.
D029	Diffuse_knap_dmap2003	Map of diffuse knapweed ( <i>C. diffusa</i> ) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.

### *State Park, Nisqually-Mashel*

DataID	filename	Description
G064	NisquallyMashel.shp, etc.	Data collected by LYRA Biological for WSPRC. Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel State Park in 2006.
P008	Final Nisqually.pdf	Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel State Park in 2006.

#### *State Park, Lake Isabella*

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P007	Final Lake Isabella SP.pdf	Report describing knapweed as located along the northern pastures of Lake Isabella State Park during vegetation surveys in 2009.
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#### *State Park, Federation Forest*

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G063	FederationForest.shp, etc.	Data collected by Pacific Biodiversity Institute for WSPRC. Knapweed noted as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.
P006	Federation Forest - veg assoc and rare plant report - 2005.doc	Report noting knapweed as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.

#### *State Park, Birch Bay*

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P005	Birch Bay SP Vegetation Survey.pdf	Report describing mapped observations of knapweed in Birch Bay State Park during vegetation surveys in 2008.
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#### *Reservation, Swinomish Tribe*

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G046a	G046a.shp (from knapweed.gdb)	Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase
G046b	G046b.shp (from knapweed.gdb)	Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase

#### *Puget Sound Basin*

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G073a	G072.shp	Notes which parks in Puget Sound were surveyed, and where priority species found. Knapweed found in 4 of 56 parks surveyed
G077a	G077a.shp (Knapweed_phragmites.xlsx)	Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts and maximize control efforts.

DataID	filename	Description
<i>National Park, Olympic</i>		
D019	NPS_Knapweed.xls	Description of one knap population in Olympic NP with estimated location and extent; has been present since before 2002 and may be treated in 2011.
<i>National Park, Mt. Rainier</i>		
D030	Spotted Knapweed Locations.xls	Data on mile markers where spotted knapweed found & controlled. Locations primarily verbally documented, and are mostly on East side of park (not in PS).
<i>National Forest, Olympic</i>		
G022	G022.shp (from ONF_knapweeds.shp)	Shapefile of knapweed in Olympic National Forest, from surveys conducted 1997-2003. Now in treatment phase.
<i>National Forest, Mt. Baker-Snoqualmie</i>		
G040	mbs_knapweed_2010_not_kittitas.shp	Knapweed locations documented in Mt Baker-Snoqualmie NF from 1997-2008. Data were provided by many people to L. Martin, in many cases "with a scribble on a map or a verbal description."
<i>County, Whatcom</i>		
G070	G070.shp (from Whatcom knapweeds 2010.xls)	Locations where ongoing monitoring is occurring of about 300 spotted knap, 200 meadow knap sites. L Baldwin says "some far-flung sites, e.g., Newhalem, not included."
<i>County, Thurston</i>		
G021	G021.shp	Shapefile of knapweed in Thurston County.
<i>County, Skagit</i>		
D013	SkagitCoKnapweed.pdf	Map from assessor's database showing one knapweed location in Skagit County (Sharp's corner in Anacortes, by Hart Lake, along Hwy 20). B. Rogers says others are on tribal, federal land.
<i>County, San Juan - outer islands</i>		
G006b	G006b (Weed_Lines08.shp)	Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.
G006c	G006c.shp (Weeds_Points_08.shp)	Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.
<i>County, San Juan</i>		

DataID	filename	Description
D010	Top Weeds per Island Map E_Size.pdf	Pdf map of 2007 knapweed survey data on Lopez, Orcas, and San Juan Islands.
G028	G028.shp	Shapefile of knapweed on San Juan, Lopez, and Orcas Islands in 2007 from San Juan Public Works. Species codes are cenmac, cenpra, and censto.
G061	G061.shp (Nox_weeds09.shp)	Shapefile of knapweed distribution on San Juan Islands.
G069	G069.shp	shapefile created from data included in emails D009

#### *County, Pierce*

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D016	Knapweed Data for Cascadia.xls	Locations (addresses and some lat/long) where knapweed notices have been issued in Pierce County. They are updating database to incorporate habitat and trends/pathways in these observations.
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#### *County, Lewis*

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G017	G017.shp (Spotted Knapweed selection 1999.shp)	Shapefile of spotted knapweed in Lewis County.
G034	G034.shp	Knapweed sightings along roadsides in Gifford Pinchot NF in the Lewis County portion of the Nisqually Watershed in 2005-2007. B. Wamsley expects data is just from uplands, not in stream corridor.

#### *County, Kitsap*

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G072	G072.shp (from 2009.xls)	Locations of noxious weeds in Kitsap County. Only one knapweed site noted, at Olalla Valley Rd in Port Orchard.
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#### *County, King*

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G027	G027.shp (from InvasiveCouncilWeeds_08_09.shp)	Shapefile of knapweed in King County, 2008-2009, with information on presence, area, cover class, and habitat type.
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#### *County, Jefferson*

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G029	G029.shp (from meadow knapweed.shp)	Shapefile of meadow knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Two large infestations on W. Valley Rd. outside Chimacum.
G031	G031.shp (from spotted knapweed.shp)	Shapefile of spotted knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Spotted knapweed is popping up along highways in J. County.
G033	G033.shp (from mis species_mod.shp)	Shapefile of big head knapweed in Jefferson County (a few sites). Populations noted by points, size not estimated. Federal lands not covered.

DataID	filename	Description
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*County, Clallam*

G023	G023.shp (from ceja.shp)	Shapefile of meadow knapweed in Clallam County. Have lots of meadow knapweed. Hotspots are W. of Port Angeles, Olympic Hot Springs Road, behind Sequim in Burnt Hill (old sheep raising), along hwy.
G024	G024.shp (from spottedknapweed.shp)	Shapefile of spotted knapweed in Clallam County. Have limited spotted knapweed.

G082 G082

G083 G083

**nutria**

**10 data files**

*Washington State*

O002	washington_nutria.jpg	Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.
P001	NutriaManagementResearch in PNW.pdf	Report summarizing the status of nutria in Washington and Oregon, as well as management options.
U002d	<a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a>	Information on nutria in Washington, beginning in 1935, as compiled by the USGS in a national database which tracks freshwater species.

*Seattle area, with a few observations as far N as Edmonds and as far S as Renton.*

D033	nutria_obs.csv	UW students have collected data in 10 places around state where nutria are established.
G087		Shapefile from UW students' spreadsheet of public sightings from a response network (sightings reported by phone or email).
R026	Thesis Final.doc	Report from UW students' characterization of nutria around Lake Washington and broader areas.

*County, King; County, Skagit*

D012	Puget Sound Nutria Take.xls	Locations where USDA has trapped or shot nutria, with dates and numbers of nutria taken. Data are at county scale to avoid disclosing identity of those requesting services.
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*City, Seattle - Lake Washington*

DataID	filename	Description
I005	KAS to complete	Photographs of nutria observed near University of Washington in May 2008, at 47' 39" 13.58N 122' 17" 46.63W.
O003	none	UW and USDA Wildlife Services trapped over 200 nutria on about 40 acres around the University of Washington in 2009. More details under Programs.
G081	G081	Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.

## common reed

14 data files

### *State Park, Fort Casey*

D017	Fort Casey - list of plants in park - 2003.xls	Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.
G066	Whidbey.shp, etc.	Data collected by Kathryn Beck and Joseph Arnett for WSPRC. Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.

### *Seattle*

G079	Seattle_Public_Lands_Survey.mdb	SUN mapped types of vegetation in Seattle parks, green belts, and other open spaces. Digitized habitat region delineations for use in GIS. Of WISC 15 priority species, only common reed detected.
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### *Puget Sound Basin*

G019	G019.shp	Shapefile of non-native phragmites in Washington, compiled by G. Haubrich (WSDA Phragmites Survey Results)
G073c	G073.shp	Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed
G077b	G077b.shp (Knapweed_phragmites.xlsx)	Data file describes phragmites observed in WSDOT right-of-way at the Duwamish /1st Ave bridge and on SR 599, noting side of road and mileposts. Points represent reoccurring infestations (2-3 years).

### *County, Thurston*

G020	G020.shp (from invasivespeciescouncil.shp)	Shapefile of phragmites in Thurston County. Also see <a href="http://www.co.thurston.wa.us/tcweeds/special-projects.htm">http://www.co.thurston.wa.us/tcweeds/special-projects.htm</a>
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DataID	filename	Description
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*County, King*

G025	G025.shp (from InvasiveCouncilWeeds_08_09.shp)	Shapefile of phragmites in King County in 2008-2009, with information on presence, area, cover class, and habitat type.
G039	G039.shp (from D8_DOE_write 1-19 rpt_KAS.xls, GO_wria_rpt.shp)	Shapefile of phragmites data collected by J. Parsons of Ecology in surveys.

*County, Jefferson*

G032	G032.shp (from misc species_mod.shp)	Shapefile of phragmites in Jefferson County, showing one site mapped along SR 104.
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*County, Island; County, King; County, Snohomish*

D003	Giblin-phragmites.doc	UW Herbarium records of phragmites presence, 1892-2005.
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*City, Seattle - Lake Washington*

I004	IMG_7155.jpg, P9080012.jpg	Photograph of "phragmites island" right off University of Washington in Lake Washington, located at 47' 39" 11.74N 122' 17" 47.34W.
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*City, Bellingham*

G075	G075.shp	Location of treatment of an ~250 sq. ft. population of phragmites on Whatcom Creek in Bellingham, at bridge on Holly Street (N48 45.223 W122 29.020).
I006	IMG_6184.jpg@IMG_6178.jpg	Photographs of phragmites on Whatcom Creek in Bellingham which was treated by L. Baldwin. First photographed 2006. Treated 9/23/09. Appeared to still be present 2/10.

**spartina**

**29 data files**

*State Park, Dosewallips*

G065	Dosewallips.shp, etc.	Collected by Pacific Biodiversity Institute for WSPRC. Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.
P010	Dosewallips - veg assoc and rare plant report.doc	Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.

*State Park, Deception Pass*

DataID	filename	Description
P009	Deception Pass SP - Vegetation Survey Report.pdf	Description of Spartina around Cornet Bay in Deception Pass State Park as observed in vegetation surveys in 2008-2009. The Spartina was mapped and a treatment plan described.

#### *Reservation, Swinomish Tribe*

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G047a	G047a.shp (Spartina.shp)	Polygon of <i>S. anglica</i> distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.
G047b	G047b.shp (Spartina_Isolated.shp)	Point file of <i>S. anglica</i> distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.

#### *Puget Sound Marine Waters - North*

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G056	G056.shp (2008Survey_coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and Whatcom Counties in 2008.
G057	G057.shp (2008_Spartina_data.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and Whatcom Counties in 2008.
G058	G058.shp (2007_survey_coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.
G059	G059.shp (2007_Spartina_data.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.

#### *Puget Sound Marine Waters - Camano Island*

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I003	P5220019.jpg, P5220020.jpg	Photograph of Spartina observed on the way to Camano Island.
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#### *Puget Sound Marine Basin -*

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G060	G060.shp (SpartinaPS2009Sites.shp)	Data from statewide Spartina surveys and treatment in 2009.
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#### *Puget Sound Basin*

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G018	G018.shp	Shape file showing Spartina population status Sound-wide as of 2008. Categories shown are monitored/eradicated, 1 acre or less, 1 to 5 acres, 6-50 acres, > 50 acres.
G073b	G073.shp	Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed

DataID	filename	Description
<i>County, Whatcom</i>		
G054	G054.shp (survey_coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.
G055	G055.shp (XYWhatcom.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.
<i>County, Snohomish</i>		
D020	Spartina Spray Records.xls (1997-2008; no 2001)	Records describing where spraying for spartina conducted (mostly or just in Snohomish County) and with what partners.
<i>County, Skagit</i>		
G052	G052.shp (Survey_coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.
G053	G053.shp (XYSkagit.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.
<i>County, San Juan</i>		
D010b	Spt_survey_2008 copy.jpg	Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.
D010c	Spt_survey_Wescott_marsh_2008.jpg	Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.
G050	G050.shp (Survey_Coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.
G051	G051.shp (XYSanJuan.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.
G068	G068.shp	Spartina found on San Juan, Lopez, Orcas, and Decatur Islands.
<i>County, King</i>		
O001	none	Anecdotal communication that Spartina was observed on Vashon Island several years ago.
<i>County, Jefferson</i>		

DataID	filename	Description
O007	N/A	Anecdotal communications that Spartina has been observed in Discovery Bay (C. Lucero) and at the mouth of the Dosewallips River (E. Dixon), both in Jefferson County.

*County, Island; County, Jefferson; County, Snohomish*

D004	Giblin-spartina.doc	UW Herbarium records of Spartina presence, 1902-2005.
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*County, Island*

G048	G048.shp (Survey_Coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.
G049	G049.shp (XYIsland.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.

P002	WSDASpartinaReport2007.pdf, hard copies of 2008 & 2009 draft reports	Annual reports to the Legislature on Spartina control with information on acreage, distribution, eradication efforts, partners, etc. Recieved DRAFT of 2008, 2009 reports from C. Phillips, not for distribution.
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**tunicates**

**16 data files**

*Washington State*

D024	Washington State invasive tunicates Gretchen Lambert June 2007.xls	Tunicate survey data from Lambert & Lambert shown in Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates, plus other diver data collected since 2006.
R024	Washington State invasive tunicate survey for WDFW.doc	Report summarizing survey data included in D24, similar to Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates.

*TBD*

I007	<a href="http://nwgeogirl.smugmug.com/Invasive-Tunicates">http://nwgeogirl.smugmug.com/Invasive-Tunicates</a>	Photographs of the three invasive tunicates.
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*Tahuya (#23550) geoduck tract in Southern Hood Canal*

G084	2005_2007WDFWTahuyaSurveys	The layer WDFWTahuyaSurvey2005 contains records showing the positions of all of the transects that were completed during the October, 2005 survey of the Tahuya geoduck tract. In the field C_Sav_P_A, P indicates that Ciona savignyi was present on the transect.
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*southern Hood Canal (Tahuya River delta)*

DataID	filename	Description
R025	hoodcanal_hb1896.pdf	This report describes tunicates observed during surveys to document geoduck populations. Divers noted high abundance of tunicates in the Tahuya River delta in 2005. No tunicates were observed in subsequent surveys in 2007 or previously in 1996.

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*Puget Sound Marine Waters - S. Hood Canal*

R023	Ciona report.doc	Report on <i>C. savignyi</i> , same as Appendix 3 of Washington State's Response to an Invasion of Non-Native Tunicates.
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*Puget Sound Marine Waters - Blaine, Pleasant Harbor, and Neah Bay*

R014	Pleasant Harbor Report.doc	Report on <i>S. clava</i> removal in Blaine, Pleasant Harbor, and Neah Bay.
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*Puget Sound Marine Waters*

P003	Grey 2008.pdf	Peer-reviewed paper describing surveys of marine docks for invasive tunicates. Did not observe <i>Didemnum</i> or <i>C. savignyi</i> , found <i>S. clava</i> at one site. See <a href="http://home.uchicago.edu/~egrey/index.html">http://home.uchicago.edu/~egrey/index.html</a>
R011	WDFW2009.pdf	Biennial report which describes 100 sites surveyed for tunicates, with 31 sites containing one of the three invasive species, and count data at specific sites. Have requested data from WDFW.
R012	CohenetalRapidAssessment1998.pdf	Surveys conducted of harbors, marinas, and natural areas in 1998, for invasive species including tunicates. Appendix 6 (page 33) summarizes findings with respect to tunicates.
R015	PSAT2007.pdf	Report from the Puget Sound Action Team summarizing the state's response to non-native tunicates. Includes several data sets (R23, R24, D24).

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*Puget Sound Basin*

G076a	G076a	All tunicate sightings in REEF's Washington database (176 records). Sightings from a given survey share a form number. Both novice and expert data are included.
G076b	G076b.shp	All Type 2 and Type 3 REEF surveys conducted since 4/1/2006 in WA in REEF's database (REEF surveys have been conducted since 1998, tunicates were added in 2006). See ReadMe file.

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*Hood Canal*

G067	Point_ge.shp, etc.	
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*City, Brinnon, WA - Pleasant Harbor Marine*

DataID	filename	Description
G071	G071.shp	Data on <i>Styela clava</i> abundance and recruitment at Pleasant Harbor Marina (abundance data for 2005, 2007-8 forthcoming). E. Grey notes that WDFW attempted removal at this marina in 2006 or 2007.
O012	REEFGBPS2009.pdf	Poster on REEF's survey and education efforts, showing data collected to date, presented at Puget Sound Georgia Basin conference.

### VHS type IVa (Viral Hemorrhagic Septicemia Virus IVa genotype)

2 data files

#### *Puget Sound Basin*

G078	VHSV detections in database.pdf, VHSV detections by watershed.pdf, VHSV IVb Great Lakes Epidem USGS.pdf	Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).
R016	VHSV detections in database.pdf, VHSV detections by watershed.pdf, VHSV IVb Great Lakes Epidem USGS.pdf	Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).

### variable leaf milfoil

5 data files

#### *County, Thurston*

G002b	G002b (june2010.shp)	Shapefile of variable leaf milfoil locations in Clear Lake, Thurston County. Shapefile does not show Blue Lake, but R. Johnson says it is solidly infested.
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#### *County, Pierce; County, Thurston*

G038	G038.shp	Shapefile showing most lakes in Puget Sound with variable leaf milfoil, as collected by J. Parsons in cooperation with others working on eradication in these lakes.
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#### *County, Pierce*

O004	O4_Florence Sep 09.jpg	Image of variable leaf milfoil presence within Florence Lake, based on J. Parsons GIS files.
R013	Milfoil Grant Report - Oct 30.doc	Semi-annual grant report on management and current status of variable leaf milfoil in Blue, Clear (Thurston Co.), and Josephine Lakes.
R018	G0900241 Variable leaf milfoil eradication.doc	Grant agreement between Ecology and Pierce County Noxious Weed Board for eradication and management of variable-leaf milfoil in Blue, Clear, and Florence lakes.

### wood-boring beetles

4 data files

DataID	filename	Description
G080		
G080a	G080a_EmeraldAshBorer2009	
G080b	G080b_EWBIS_2009Survey	
G080c	G080c_WAExoticPinePest200	

**zebra, quagga mussels** **2 data files**

D032	WDFW Current Artificial Substrates&Plankton Sites, WDFW Historical Plankton Data
G085a	

# Data files for inclusion in Baseline Assessment Project

D= spreadsheets  
G = shapefiles  
I = images

O = other (including anecdotal reports)  
P/R = reports (published and unpublished)  
U = URLs or online sources

DataID	filename	Descrip	SpatialExtent
<b>Brazilian elodea</b>			<b>12 data files</b>
D006	Giblin-elodea.doc	UW Herbarium records of Brazilian elodea presence, 1994-2006 (1994 with J. Parsons).	County, Island; County, Jefferson; County; San Juan; County, Skagit
D026	Brazilian_elodea_dmap2003.pdf	Map of Brazilian elodea distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.	Washington State
G026	G026.shp	Shapefile showing Brazilian elodea observed in King County 2008-2009, with information on presence, area, cover class, and habitat type.	County, King
G036	G036.shp	Shapefile on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.	Puget Sound Basin
G086		Observation of brel near pond on Turn Point, east shore of San Juan Island.	County, San Juan
I001	SammR_egeden_worststretch09.JPG, P1010040.JPG, P1010054.JPG, P10100044.JPG	Photos from informal surveys for Brazilian elodea on Sammamish River (AKA Sammamish Slough), conducted by K. Messick of King County.	County, King
O008	no file	Anecdotal reports of Brazilian elodea in Lake Leland in Jefferson County from C. Lucero and E. Dixon.	County, Jefferson
O009	Katie Messick on elodea in KC.doc	Brel presence in Lake Dolloff, Sammamish Slough/River, Lake Sammamish, Lake WA, Ship Canal, Lake Union. Haven't seen brel in smaller lakes.	County, King
R005	08 Report_Clear Beaver Lakes.pdf, 2009 Year End Report LMD4.pdf	2008 Annual Report on management of other invasives in these Skagit County lakes references one small, floating, dead patch of Brazilian elodea on Beaver Lake; 2009 report does not describe any Brazilian elodea.	County, Skagit
R006	2008 Lone Lake Egeria Eradication Project.doc	Annual report on Brazilian elodea eradication efforts and detailed water quality observations in Lone Lake, Island County; submitted to Ecology.	County, Island

DataID	filename	Descrip	SpatialExtent
R007	KentReporterArticle_6408.pdf	News article on the presence and management of Brazilian elodea in Lake Fenwick in Kent.	City, Kent
R017	Final Report Big Lake 2002 Final.pdf, Big Lake Survey 2003.pdf, 2003 Final Report.pdf, 2004 report.pdf, Big Lake 2006 Report.pdf, Big Lake Year End	Series of annual reports from Big Lake Management district in Skagit County on surveys and treatment for Brazilian elodea from 2002-2009. Appears not to be present in 2009.	County, Skagit

## gypsy moths

8 data files

G041	G041.shp (AGMDetectionsArchiveWSDA.shp)	Shapefile showing all Asian gypsy moth detections recorded via WSDA survey efforts from 1972 - present day.	County, King; County, Pierce; County, Thurston
G042	G042.shp (GMDetects_07_09.shp)	Shapefile showing all European gypsy moth detections via WSDA survey efforts from 2007, 2008, and 2009.	Washington State
G043	G043.shp (GypsyMoth_WSDA2007.shp)	Shapefile showing all WSDA trap placements statewide, 2007.	Washington State
G044	G044.shp (GypsyMoth_WSDA2008.shp)	Shapefile showing all WSDA trap placements statewide, 2008.	Washington State
G045	G045.shp (GypsyMoth_WSDA2009.shp)	Shapefile showing all WSDA trap placements statewide, 2009.	Washington State
O010	none	Data files from WSDA surveys 1972-2006 are in paper forms, with addresses but no gps coordinates for the ~25,000 traps set annually. All detections are shown in G41 and G42.	Washington State
P004a	GM Summary Report.pdf	WSDA's annual report on gypsy moth surveys. See also at <a href="http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports">http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports</a>	Washington State
P004b	GM Survey.pdf	WSDA presentation on gypsy moth surveys.	Washington State

DataID	filename	Descrip	SpatialExtent
<b>hydrilla</b>			<b>8 data files</b>
D007	Giblin-hydrilla.doc	UW Herbarium records of hydrilla presence, 1995, 2002 (with J. Parsons).	County, King
G035	G035.shp (from pl_all_points.shp)	Shapefiles for each year that hydrilla was present (2003-2006) since King County took over eradication efforts at Pipe & Lucerne Lakes. Hydrilla has been absent for 3 yrs in Pipe, 5 yrs in Lucerne.	County, King
G037	G037.shp	Data on hydrilla presence in Pipe & Lucerne Lakes, from J. Parsons surveys.	County, King
I002	IMGP0821.JPG, DSCN1486.JPG, SCUBA 6_24 3.JPG	Photos from King County of hydrilla eradication program (informational sign, project divers) in Pipe Lake.	County, King
R008	FPE-G0300219.doc	Annual report information submitted to Ecology on Pipe & Lucerne Lake hydrilla eradication.	County, King
R009	HydrillaApr09_Oct09.doc	Most recent annual report submitted to Ecology on Pipe & Lucerne Lake hydrilla eradication from King County.	County, King
R010a	Hydrilla Reports from KC email.pdf	Annual hydrilla eradication reports '03-'07 online at <a href="http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx">http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx</a> .	County, King
R010b	2008_Annual_Report.pdf	Annual hydrilla eradication report from 2008 (was not yet online at time of data collection).	County, King

DataID	filename	Descrip	SpatialExtent
<b>knapweeds</b>			<b>39 data files</b>
D002	Giblin-knapweed.doc	UW Herbarium records of knapweed presence, 1923-2007.	Washington State
D010	Top Weeds per Island Map E_Size.pdf	Pdf map of 2007 knapweed survey data on Lopez, Orcas, and San Juan Islands.	County, San Juan
D013	SkagitCoKnapweed.pdf	Map from assessor's database showing one knapweed location in Skagit County (Sharp's corner in Anacortes, by Hart Lake, along Hwy 20). B. Rogers says others are on tribal, federal land.	County, Skagit
D016	Knapweed Data for Cascadia.xls	Locations (addresses and some lat/long) where knapweed notices have been issued in Pierce County. They are updating database to incorporate habitat and trends/pathways in these observations.	County, Pierce
D019	NPS_Knapweed.xls	Description of one knap population in Olympic NP with estimated location and extent; has been present since before 2002 and may be treated in 2011.	National Park, Olympic
D027	Brown_knap_dmap2003.pdf	Map of brown knapweed ( <i>C. jacea</i> ) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.	Washington State
D028	Black_knap_dmap2003	Map of black knapweed ( <i>C. nigra</i> ) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.	Washington State
D029	Diffuse_knap_dmap2003	Map of diffuse knapweed ( <i>C. diffusa</i> ) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.	Washington State
D030	Spotted Knapweed Locations.xls	Data on mile markers where spotted knapweed found & controlled. Locations primarily verbally documented, and are mostly on East side of park (not in PS).	National Park, Mt. Rainier
G006b	G006b (Weed_Lines08.shp)	Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.	County, San Juan - outer islands

DataID	filename	Descrip	SpatialExtent
G006c	G006c.shp (Weeds_Points_08.shp)	Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.	County, San Juan - outer islands
G017	G017.shp (Spotted Knapweed selection 1999.shp)	Shapefile of spotted knapweed in Lewis County.	County, Lewis
G021	G021.shp	Shapefile of knapweed in Thurston County.	County, Thurston
G022	G022.shp (from ONF_knapweeds.shp)	Shapefile of knapweed in Olympic National Forest, from surveys conducted 1997-2003. Now in treatment phase.	National Forest, Olympic
G023	G023.shp (from ceja.shp)	Shapefile of meadow knapweed in Clallam County. Have lots of meadow knapweed. Hotspots are W. of Port Angeles, Olympic Hot Springs Road, behind Sequim in Burnt Hill (old sheep raising), along hwy.	County, Clallam
G024	G024.shp (from spottedknapweed.shp)	Shapefile of spotted knapweed in Clallam County. Have limited spotted knapweed.	County, Clallam
G027	G027.shp (from InvasiveCouncilWeeds_08_09.shp)	Shapefile of knapweed in King County, 2008-2009, with information on presence, area, cover class, and habitat type.	County, King
G028	G028.shp	Shapefile of knapweed on San Juan, Lopez, and Orcas Islands in 2007 from San Juan Public Works. Species codes are cenmac, cenpra, and censto.	County, San Juan
G029	G029.shp (from meadow knapweed.shp)	Shapefile of meadow knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Two large infestations on W. Valley Rd. outside Chimacum.	County, Jefferson
G031	G031.shp (from spotted knapweed.shp)	Shapefile of spotted knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Spotted knapweed is popping up along highways in J. County.	County, Jefferson
G033	G033.shp (from mis species_mod.shp)	Shapefile of big head knapweed in Jefferson County (a few sites). Populations noted by points, size not estimated. Federal lands not covered.	County, Jefferson

DataID	filename	Descrip	SpatialExtent
G034	G034.shp	Knapweed sightings along roadsides in Gifford Pinchot NF in the Lewis County portion of the Nisqually Watershed in 2005-2007. B. Wamsley expects data is just from uplands, not in stream corridor.	County, Lewis
G040	mbs_knapweed_2010_not_kittitas.shp	Knapweed locations documented in Mt Baker-Snoqualmie NF from 1997-2008. Data were provided by many people to L. Martin, in many cases "with a scribble on a map or a verbal description."	National Forest, Mt. Baker-Snoqualmie
G046a	G046a.shp (from knapweed.gdb)	Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase	Reservation, Swinomish Tribe
G046b	G046b.shp (from knapweed.gdb)	Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase	Reservation, Swinomish Tribe
G061	G061.shp (Nox_weeds09.shp)	Shapefile of knapweed distribution on San Juan Islands.	County, San Juan
G063	FederationForest.shp, etc.	Data collected by Pacific Biodiversity Institute for WSPRC. Knapweed noted as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.	State Park, Federation Forest
G064	NisquallyMashel.shp, etc.	Data collected by LYRA Biological for WSPRC. Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel State Park in 2006.	State Park, Nisqually-Mashel
G069	G069.shp	shapefile created from data included in emails D009	County, San Juan
G070	G070.shp (from Whatcom knapweeds 2010.xls)	Locations where ongoing monitoring is occurring of about 300 spotted knap, 200 meadow knap sites. L Baldwin says "some far-flung sites, e.g., Newhalem, not included."	County, Whatcom
G072	G072.shp (from 2009.xls)	Locations of noxious weeds in Kitsap County. Only one knapweed site noted, at Olalla Valley Rd in Port Orchard.	County, Kitsap
G073a	G072.shp	Notes which parks in Puget Sound were surveyed, and where priority species found. Knapweed found in 4 of 56 parks surveyed	Puget Sound Basin

DataID	filename	Descrip	SpatialExtent
G077a	G077a.shp (Knapweed_phragmites.xlsx)	Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts and maximize control efforts.	Puget Sound Basin
G082	G082		
G083	G083		
P005	Birch Bay SP Vegetation Survey.pdf	Report describing mapped observations of knapweed in Birch Bay State Park during vegetation surveys in 2008.	State Park, Birch Bay
P006	Federation Forest - veg assoc and rare plant report - 2005.doc	Report noting knapweed as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.	State Park, Federation Forest
P007	Final Lake Isabella SP.pdf	Report describing knapweed as located along the northern pastures of Lake Isabella State Park during vegetation surveys in 2009.	State Park, Lake Isabella
P008	Final Nisqually.pdf	Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel State Park in 2006.	State Park, Nisqually-Mashel

DataID	filename	Descrip	SpatialExtent
<b>nutria</b>			<b>10 data files</b>
D012	Puget Sound Nutria Take.xls	Locations where USDA has trapped or shot nutria, with dates and numbers of nutria taken. Data are at county scale to avoid disclosing identity of those requesting services.	County, King; County, Skagit
D033	nutria_obs.csv	UW students have collected data in 10 places around state where nutria are established.	Seattle area, with a few observations as far N as Edmonds and as far S as Renton.
G081	G081	Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.	
G087		Shapefile from UW students' spreadsheet of public sightings from a response network (sightings reported by phone or email).	Seattle area, with a few observations as far N as Edmonds and as far S as Renton.
I005	KAS to complete	Photographs of nutria observed near University of Washington in May 2008, at 47' 39" 13.58N 122' 17" 46.63W.	City, Seattle - Lake Washington
O002	washington_nutria.jpg	Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.	Washington State
O003	none	UW and USDA Wildlife Services trapped over 200 nutria on about 40 acres around the University of Washington in 2009. More details under Programs.	City, Seattle - Lake Washington
P001	NutriaManagementResearch in PNW.pdf	Report summarizing the status of nutria in Washington and Oregon, as well as management options.	Washington State
R026	Thesis Final.doc	Report from UW students' characterization of nutria around Lake Washington and broader areas.	Seattle area, with a few observations as far N as Edmonds and as far S as Renton.
U002d	<a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a>	Information on nutria in Washington, beginning in 1935, as compiled by the USGS in a national database which tracks freshwater species.	Washington State

DataID	filename	Descrip	SpatialExtent
<b>common reed</b>			<b>14 data files</b>
D003	Giblin-phragmites.doc	UW Herbarium records of phragmites presence, 1892-2005.	County, Island; County, King; County, Snohomish
D017	Fort Casey - list of plants in park - 2003.xls	Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.	State Park, Fort Casey
G019	G019.shp	Shapefile of non-native phragmites in Washington, compiled by G. Haubrich (WSDA Phragmites Survey Results)	Puget Sound Basin
G020	G020.shp (from invasivespeciescouncil.shp)	Shapefile of phragmites in Thurston County. Also see <a href="http://www.co.thurston.wa.us/tcweeds/special-projects.htm">http://www.co.thurston.wa.us/tcweeds/special-projects.htm</a>	County, Thurston
G025	G025.shp (from InvasiveCouncilWeeds_08_09.shp)	Shapefile of phragmites in King County in 2008-2009, with information on presence, area, cover class, and habitat type.	County, King
G032	G032.shp (from misc species_mod.shp)	Shapefile of phragmites in Jefferson County, showing one site mapped along SR 104.	County, Jefferson
G039	G039.shp (from D8_DOE_write 1-19 rpt_KAS.xls, G0_wria_rpt.shp)	Shapefile of phragmites data collected by J. Parsons of Ecology in surveys.	County, King
G066	Whidbey.shp, etc.	Data collected by Kathryn Beck and Joseph Arnett for WSPRC. Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.	State Park, Fort Casey
G073c	G073.shp	Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed	Puget Sound Basin
G075	G075.shp	Location of treatment of an ~250 sq. ft. population of phragmites on Whatcom Creek in Bellingham, at bridge on Holly Street (N48 45.223 W122 29.020).	City, Bellingham
G077b	G077b.shp (Knapweed_phragmites.xlsx)	Data file describes phragmites observed in WSDOT right-of-way at the Duwamish /1st Ave bridge and on SR 599, noting side of road and mileposts. Points represent reoccurring infestations (2-3 years).	Puget Sound Basin

DataID	filename	Descrip	SpatialExtent
G079	Seattle_Public_Lands_Survey.mdb	SUN mapped types of vegetation in Seattle parks, green belts, and other open spaces. Digitized habitat region delineations for use in GIS. Of WISC 15 priority species, only common reed detected.	Seattle
I004	IMG_7155.jpg, P9080012.jpg	Photograph of "phragmites island" right off University of Washington in Lake Washington, located at 47' 39" 11.74N 122' 17" 47.34W.	City, Seattle - Lake Washington
I006	IMG_6184.jpg@IMG_6178.jpg	Photographs of phragmites on Whatcom Creek in Bellingham which was treated by L. Baldwin. First photographed 2006. Treated 9/23/09. Appeared to still be present 2/10.	City, Bellingham

DataID	filename	Descrip	SpatialExtent
<b>spartina</b>			<b>29 data files</b>
D004	Giblin-spartina.doc	UW Herbarium records of Spartina presence, 1902-2005.	County, Island; County, Jefferson; County, Snohomish
D010b	Spt_survey_2008 copy.jpg	Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.	County, San Juan
D010c	Spt_survey_Wescott_marsh_2008.jpg	Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.	County, San Juan
D020	Spartina Spray Records.xls (1997-2008; no 2001)	Records describing where spraying for spartina conducted (mostly or just in Snohomish County) and with what partners.	County, Snohomish
G018	G018.shp	Shape file showing Spartina population status Sound-wide as of 2008. Categories shown are monitored/eradicated, 1 acre or less, 1 to 5 acres, 6-50 acres, > 50 acres.	Puget Sound Basin
G047a	G047a.shp (Spartina.shp)	Polygon of <i>S. anglica</i> distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.	Reservation, Swinomish Tribe
G047b	G047b.shp (Spartina_Isolated.shp)	Point file of <i>S. anglica</i> distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.	Reservation, Swinomish Tribe
G048	G048.shp (Survey_Coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.	County, Island
G049	G049.shp (XYIsland.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.	County, Island
G050	G050.shp (Survey_Coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.	County, San Juan

DataID	filename	Descrip	SpatialExtent
G051	G051.shp (XYSanJuan.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.	County, San Juan
G052	G052.shp (Survey_coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.	County, Skagit
G053	G053.shp (XYSkagit.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.	County, Skagit
G054	G054.shp (survey_coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.	County, Whatcom
G055	G055.shp (XYWhatcom.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.	County, Whatcom
G056	G056.shp (2008Survey_coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and Whatcom Counties in 2008.	Puget Sound Marine Waters - North
G057	G057.shp (2008_Spartina_data.shp)	Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and Whatcom Counties in 2008.	Puget Sound Marine Waters - North
G058	G058.shp (2007_survey_coverage.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.	Puget Sound Marine Waters - North
G059	G059.shp (2007_Spartina_data.shp)	Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.	Puget Sound Marine Waters - North
G060	G060.shp (SpartinaPS2009Sites.shp)	Data from statewide Spartina surveys and treatment in 2009.	Puget Sound Marine Basin -

DataID	filename	Descrip	SpatialExtent
G065	Dosewallips.shp, etc.	Collected by Pacific Biodiversity Institute for WSPRC. Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.	State Park, Dosewallips
G068	G068.shp	Spartina found on San Juan, Lopez, Orcas, and Decatur Islands.	County, San Juan
G073b	G073.shp	Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed	Puget Sound Basin
I003	P5220019.jpg, P5220020.jpg	Photograph of Spartina observed on the way to Camano Island.	Puget Sound Marine Waters - Camano Island
O001	none	Anecdotal communication that Spartina was observed on Vashon Island several years ago.	County, King
O007	N/A	Anecdotal communications that Spartina has been observed in Discovery Bay (C. Lucero) and at the mouth of the Dosewallips River (E. Dixon), both in Jefferson County.	County, Jefferson
P002	WSDASpartinaReport2007.pdf, hard copies of 2008 & 2009 draft reports	Annual reports to the Legislature on Spartina control with information on acreage, distribution, eradication efforts, partners, etc. Recieved DRAFT of 2008, 2009 reports from C. Phillips, not for distribution.	-
P009	Deception Pass SP - Vegetation Survey Report.pdf	Description of Spartina around Cornet Bay in Deception Pass State Park as observed in vegetation surveys in 2008-2009. The Spartina was mapped and a treatment plan described.	State Park, Deception Pass
P010	Dosewallips - veg assoc and rare plant report.doc	Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.	State Park, Dosewallips

DataID	filename	Descrip	SpatialExtent
<b>tunicates</b>			<b>16 data files</b>
D024	Washington State invasive tunicates Gretchen Lambert June 2007.xls	Tunicate survey data from Lambert & Lambert shown in Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates, plus other diver data collected since 2006.	Washington State
G067	Point_ge.shp, etc.		Hood Canal
G071	G071.shp	Data on Styela clava abundance and recruitment at Pleasant Harbor Marina (abundance data for 2005, 2007-8 forthcoming). E. Grey notes that WDFW attempted removal at this marina in 2006 or 2007.	City, Brinnon, WA - Pleasant Harbor Marine
G076a	G076a	All tunicate sightings in REEF's Washington database (176 records). Sightings from a given survey share a form number. Both novice and expert data are included.	Puget Sound Basin
G076b	G076b.shp	All Type 2 and Type 3 REEF surveys conducted since 4/1/2006 in WA in REEF's database (REEF surveys have been conducted since 1998, tunicates were added in 2006). See ReadMe file.	Puget Sound Basin
G084	2005_2007WDFWTahuyaSurveys	The layer WDFWTahuyaSurvey2005 contains records showing the positions of all of the transects that were completed during the October, 2005 survey of the Tahuya geoduck tract. In the field C_Sav_P_A, P indicates that Ciona savignyi was present on the tran	Tahuya (#23550) geoduck tract in Southern Hood Canal
I007	<a href="http://nwgeogirl.smugmug.com/Invasive-Tunicates">http://nwgeogirl.smugmug.com/Invasive-Tunicates</a>	Photographs of the three invasive tunicates.	TBD
O012	REEFGBPS2009.pdf	Poster on REEF's survey and education efforts, showing data collected to date, presented at Puget Sound Georgia Basin conference.	-
P003	Grey 2008.pdf	Peer-reviewed paper describing surveys of marine docks for invasive tunicates. Did not observe Didemnum or C. savignyi, found S. clava at one site. See <a href="http://home.uchicago.edu/~egrey/index.html">http://home.uchicago.edu/~egrey/index.html</a>	Puget Sound Marine Waters

DataID	filename	Descrip	SpatialExtent
R011	WDFW2009.pdf	Biennial report which describes 100 sites surveyed for tunicates, with 31 sites containing one of the three invasive species, and count data at specific sites. Have requested data from WDFW.	Puget Sound Marine Waters
R012	CohenetalRapidAssessment1998.pdf	Surveys conducted of harbors, marinas, and natural areas in 1998, for invasive species including tunicates. Appendix 6 (page 33) summarizes findings with respect to tunicates.	Puget Sound Marine Waters
R014	Pleasant Harbor Report.doc	Report on S. claya removal in Blaine, Pleasant Harbor, and Neah Bay.	Puget Sound Marine Waters - Blaine, Pleasant Harbor, and Neah Bay
R015	PSAT2007.pdf	Report from the Puget Sound Action Team summarizing the state's response to non-native tunicates. Includes several data sets (R23, R24, D24).	Puget Sound Marine Waters
R023	Ciona report.doc	Report on C. savignyi, same as Appendix 3 of Washington State's Response to an Invasion of Non-Native Tunicates.	Puget Sound Marine Waters - S. Hood Canal
R024	Washington State invasive tunicate survey for WDFW.doc	Report summarizing survey data included in D24, similar to Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates.	Washington State
R025	hoodcanal_hb1896.pdf	This report describes tunicates observed during surveys to document geoduck populations. Divers noted high abundance of tunicates in the Tahuya River delta in 2005. No tunicates were observed in subsequent surveys in 2007 or previously in 1996.	southern Hood Canal (Tahuya River delta)

### VHS type IVa (Viral Hemorrhagic Septicemia Virus IVa genotype)

**2 data files**

G078	VHSV detections in database.pdf, VHSV detections by watershed.pdf, VHSV IVb Great Lakes Epidem USGS.pdf	Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).	Puget Sound Basin
R016	VHSV detections in database.pdf, VHSV detections by watershed.pdf, VHSV IVb Great Lakes Epidem USGS.pdf	Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).	Puget Sound Basin

DataID	filename	Descrip	SpatialExtent
<b>variable leaf milfoil</b>			<b>5 data files</b>
G002b	G002b (june2010.shp)	Shapefile of variable leaf milfoil locations in Clear Lake, Thurston County. Shapefile does not show Blue Lake, but R. Johnson says it is solidly infested.	County, Thurston
G038	G038.shp	Shapefile showing most lakes in Puget Sound with variable leaf milfoil, as collected by J. Parsons in cooperation with others working on eradication in these lakes.	County, Pierce; County, Thurston
O004	O4_Florence Sep 09.jpg	Image of variable leaf milfoil presence within Florence Lake, based on J. Parsons GIS files.	County, Pierce
R013	Milfoil Grant Report - Oct 30.doc	Semi-annual grant report on management and current status of variable leaf milfoil in Blue, Clear (Thurston Co.), and Josephine Lakes.	County, Pierce
R018	G0900241 Variable leaf milfoil eradication.doc	Grant agreement between Ecology and Pierce County Noxious Weed Board for eradication and management of variable-leaf milfoil in Blue, Clear, and Florence lakes.	County, Pierce

### wood-boring beetles

**4 data files**

G080			
G080a	G080a_EmeraldAshBorer2009		
G080b	G080b_EWBIS_2009Survey		
G080c	G080c_WAExoticPinePest200		

### zebra, quagga mussels

**2 data files**

D032	WDFW Current Artificial Substrates		
G085a			

## A0.0 References and Background Research

Reference ID	Title	Species ID
	<b>2008-2013 Strategic Plan.</b> Thurston County Noxious Weed Control Board. 2007. 2008-2013 Strategic Plan.	mult
	<b>Status and trends in state invasive species policy: 2002-2009.</b> Environmental Law Institute. 2010. Status and trends in state invasive species policy: 2002-2009.	mult
	<b>Washington State Aquatic Nuisance Species Committee.</b> Meacham, P., and A. Pleus. 2007. Washington State Aquatic Nuisance Species Committee. Report to the 2008 Legislature.	mult
	<b>Aquatic invasive species prevention and enforcement program for recreational and commercial watercraft.</b> Pleus, A., P. Meacham, and E. Anderson. 2007. Aquatic invasive species prevention and enforcement program for recreational and commercial watercraft. Report to the 2008 Legislature. Olympia, WA.	mult
	<b>Invaders at the Gate: 2008 Strategic Plan.</b> Washington Invasive Species Council. 2008. Invaders at the gate: 2008 strategic plan. Olympia, WA.	mult
	<b>Progress of the 2008 Spartina eradication program.</b> Washington State Department of Agriculture. 2009 (draft). Progress of the 2008 Spartina eradication program. Olympia, WA.	spar
	<b>Progress of the 2009 Spartina eradication program.</b> Washington State Department of Agriculture. 2010 (draft). Progress of the 2009 Spartina eradication program. Olympia, WA.	spar
<b>Boersma1</b>	Boersma, P.D., S.H. Reichard, and A.N. Van Buren. 2006. Invasive species in the Pacific Northwest. University of Washington Press.	mult
<b>Bradley2</b>	<b>Climate change increases risk of plant invasion in the Eastern United States.</b> Bradley, B., D.S. Wilcove, and M. Oppenheimer. 2010. Climate change increases risk of plant invasion in the Eastern United States. Biol Invasions (2010) 12:1855-1872.	kudz

Reference ID	Title	Species ID
<b>Burdick1</b>	<b>Determinants of expansion for <i>Phragmites australis</i>, common reed, in natural and impacted coastal marshes. <i>Estuaries</i></b>  Burdick, D. and R. A. Konisky. 2003. Determinants of expansion for <i>Phragmites australis</i> , common reed, in natural and impacted coastal marshes. <i>Estuaries</i> 26(2B): 407-416.	phrag
<b>Callaway1</b>	<b>Invasive plants versus their new and old neighbors: a mechanism for exotic invasion.</b>  Callaway, R. and E. Aschehoug. 2000. Invasive plants versus their new and old neighbors: a mechanism for exotic invasion. <i>Science</i> 290: 521–523.	kudz
<b>Callaway2</b>	<b>The introduction and spread of smooth cordgrass (<i>Spartina-Alterniflora</i>) in south San-Francisco Bay.</b>  Callaway J.C. and M.N. Josselyn. 1992. The introduction and spread of smooth cordgrass ( <i>Spartina alterniflora</i> ) in south San Francisco Bay. <i>Estuaries</i> 15: 218–226.	spar
<b>Campbell1</b>	<b>Feral swine damage and damage management in forested ecosystems</b>  Campbell, T.A. and D.B. Long. 2009. Feral swine damage and damage management in forested ecosystems. <i>Forest Ecology and Management</i> 257(12): 2319-2326.	fesw
<b>Coblentz1</b>	<b>Pest risk assessment for feral pigs in Oregon</b>  Coblentz, B. and C. Bouska. Pest risk assessment for feral pigs in Oregon. Oregon State University Department of Fisheries and Wildlife, Corvallis, OR.	fesw
<b>Cohen1</b>	<b>A rapid assessment survey of non-indigenous species in the shallow waters of Puget Sound</b>  Cohen, A., C. Mills, H. Berry, M. Wonham, B. Bingham, B. Bookheim, J. Carlton, J. Chapman, J. Cordell, L. Harris, T. Klinger, A. Kohn, C. Lambert, G. Lambert, K. Li, D. Secord, J. Toft. 1998. A rapid assessment survey of non-indigenous species in the shallow waters of Puget Sound. Report of the Puget Sound Expedition.	mult
<b>Cohen2</b>	<b>An exotic species detection program for Puget Sound</b>  Cohen, A.N. 2004. An exotic species detection program for Puget Sound.	mult
<b>Colautti1</b>	<b>Characterised and projected costs of nonindigenous species in Canada.</b>  Colautti, R.I., S.A. Bailey, C.D.A. van Overdijk, K. Amundsen, and H.J. MacIsaac. 2006. Characterised and projected costs of nonindigenous species in Canada. <i>Biological Invasions</i> 8: 45–59.	mult

Reference ID	Title	Species ID
Daehler1	<p><b>Status, prediction and prevention of introduced cordgrass <i>Spartina</i> spp</b></p> <p>Daehler, C.C. and D. R. Strong. 1996. Status, prediction and prevention of introduced cordgrass <i>Spartina</i> spp. invasions in Pacific estuaries, USA. <i>Biological Conservation</i> 78: 51–58.</p>	spar
Daniel1	<p><b>Biological synopsis of the invasive tunicate <i>Didemnum</i> sp.</b></p> <p>Daniel, K.S. and T.W. Therriault. 2007. Biological synopsis of the invasive tunicate <i>Didemnum</i> sp. Canadian Manuscript Report of Fisheries and Aquatic Sciences, pp. 1–53. Pacific Biological Station, Nanaimo, BC, Canada.</p>	tun
Doelle1	<p><b>Legal and policy responses to invasive species - background paper.</b></p> <p>Doelle, M. 2001. Legal and policy responses to invasive species - background paper. Prepared for the Commission for Environmental Quality.</p>	mult
Duncan1	<p><b>Assessing the economic, environmental, and societal losses from invasive plants on rangeland and wildlands.</b></p> <p>Duncan, C.A., J.J. Jachetta, M.L. Brown, V.F. Carrithers, J.K. Clark, J.M. Ditomaso, R.G. Lym, K.C. McDaniel, M.J. Renz, and P.M. Rice. 2004. Assessing the economic, environmental, and societal losses from invasive plants on rangeland and wildlands. <i>Weed Technology</i>. 18: 1411-1416.</p>	knap
Feist1	<p><b>Expansion rates and recruitment frequency of exotic smooth cordgrass, <i>Spartina alterniflora</i> (Loisel), colonizing unvegetated littoral flats in Willapa Bay, Washington.</b></p> <p>Feist, B.E. and C.A. Simenstad. 2000. Expansion rates and recruitment frequency of exotic smooth cordgrass, <i>Spartina alterniflora</i> (Loisel), colonizing unvegetated littoral flats in Willapa Bay, Washington. <i>Estuaries</i> 23: 267–274.</p>	spar
Forseth1	<p><b>Kudzu (<i>Pueraria montana</i>): History, physiology, and ecology combine to make a major ecosystem threat</b></p> <p>Forseth, I.N. and A.F. Innis. 2004. Kudzu (<i>Pueraria montana</i>): History, physiology, and ecology combine to make a major ecosystem threat. <i>Critical Reviews in Plant Sciences</i> 23(5): 401-413.</p>	kudz
Fowler1	<p>Failure of the Lacey Act to protect ecosystems against animal invasions. <i>Front Ecol Environ</i> 5(7):353-359.</p>	zemu

Reference ID	Title	Species ID
Grey1	<b>Do we need to jump in? A comparison of two survey methods of exotic ascidians on docks.</b>  Grey, E.K. 2009. Do we need to jump in? A comparison of two survey methods of exotic ascidians on docks. <i>Aquatic Invasives</i> 4(1):5-10	tun
Haack1	<b>Exotic bark- and wood-boring Coleoptera in the United States: recent establishments and interceptions.</b>  Haack, R.A. 2006. Exotic bark- and wood-boring Coleoptera in the United States: recent establishments and interceptions. <i>Canadian Journal of Forest Research</i> . 36(2): 269-288.	wbb
Harrington1	<b>Meeting the challenge: Invasive plants in Pacific Northwest ecosystems</b>  Harrington, T.B. and S.H. Reichard, eds. 2007. Meeting the challenge: Invasive plants in Pacific Northwest ecosystems. USDA-USFS.	mult
Havens1	<b>Common reed grass, <i>Phragmites australis</i>, expansion into constructed wetlands: Are we mortgaging our wetland future?</b>  Havens, K.J., H. Berquist, and D.W. Priest. 2003. Common reed grass, <i>Phragmites australis</i> , expansion into constructed wetlands: Are we mortgaging our wetland future? <i>Estuaries</i> 26: 417-422.	phrag
Hedge1	  Hedge, P., L.K. Kriwoken, and K. Patten. 2003. A review of <i>Spartina</i> management in Washington State, US. <i>Journal of Aquatic Plant Management</i> 41:82-90.	spar
Hellmann1	<b>Five potential consequences of climate change for invasive species.</b>  Hellmann, J. J., J. E. Byers, B. G. Bierwagen, and J. S. Dukes. 2008. Five potential consequences of climate change for invasive species. <i>Conservation Biology</i> 22: 534-543	mult
Herborg1	<b>Forecasting the potential distribution of the invasive tunicate <i>Didemnum vexillum</i></b>  Herborg, L.M., P. O'Hara, and T.W. Therriault. 2009. Forecasting the potential distribution of the invasive tunicate <i>Didemnum vexillum</i> . <i>Journal of Applied Ecology</i> . 46(1): 64-72.	tun
Hershner1	<b>Managing invasive aquatic plants in a changing system: Strategic consideration of ecosystem services</b>  Hershner, C. and K.J. Havens. 2008. Managing invasive aquatic plants in a changing system: Strategic consideration of ecosystem services. <i>Conservation Biology</i> . 22(3): 544-550.	hyd

Reference ID	Title	Species ID
Hickman1	<b>Kudzu (<i>Pueraria montana</i>) invasion doubles emissions of nitric oxide and increases ozone pollution.</b>  Hickman, J.E., S. Wu, L.J. Mickley, and M.T. Lerdau, 2010. Kudzu ( <i>Pueraria montana</i> ) invasion doubles emissions of nitric oxide and increases ozone pollution. Proceedings of the National Academies of Sciences.	kudz
Jarnevich1	Jarnevich, C.S. and T.J. Stohlgren. 2009. Near term climate projections for invasive species distributions. Biol Invasions 11:1373-1379	kudz
Jodoin1	<b>Highways as corridors and habitats for the invasive common reed <i>Phragmites australis</i> in Quebec, Canada</b>  Jodoin, Y., C. Lavoie, P. Villeneuve, M. Theriault, J. Beaulieu, and F. Belzile. 2008. Highways as corridors and habitats for the invasive common reed <i>Phragmites australis</i> in Quebec, Canada. Journal of Applied Ecology. 45(2): 459-466	phrag
Kaller1	<b>Swine activity alters invertebrate and microbial communities in a Coastal Plain watershed</b>  Kaller, M.D. and W.E. Kelso. 2006. Swine activity alters invertebrate and microbial communities in a Coastal Plain watershed. American Midland Naturalist 156, 163–177.	fesw
Karatayev1	<b>Physical factors that limit the distribution and abundance of <i>Dreissena polymorpha</i> (Pall.)</b>  Karatayev, A.Y., L.E. Burlakova, and D. K. Padilla. 1998. Physical factors that limit the distribution and abundance of <i>Dreissena polymorpha</i> (Pall.) Journal of Shellfish Research. 14(4):1219-1235.	zemu
KC1	<b>Pipe and Lucerne Lakes 2008 Hydrilla eradication project</b>  King County, 2008. Pipe and Lucerne Lakes 2008 Hydrilla eradication project	hyd
Kocan1	Kocan, R.M. and P.K. Hershberger. 2001. Epidemiology of Viral Hemorrhagic Septicemia among juvenile pacific herring and pacific sand lances in Puget Sound, Washington. Journal of Aquatic Animal Health 13(1):77-85	vhs
Lambert1	<b>Invasive Ascidians in Washington State – Problematic Species and Current Status.</b>  Lambert, G. 2005. Invasive ascidians in Washington State – Problematic species and current status. Prepared for the Washington Department of Fish and Wildlife. December 2005. Contract #WDFW 04-2269.	tun

Reference ID	Title	Species ID
Lambert2	<p><b>New records of ascidians from the NE Pacific: a new species of Trididemnum, range extension and redescription of Aplidopsis pannosum (Ritter, 1899) including its larva, and several nonindigenous species</b></p> <p>Lambert, G. 2003. New records of ascidians from the NE Pacific: a new species of Trididemnum, range extension and redescription of Aplidopsis pannosum (Ritter, 1899) including its larva, and several nonindigenous species. <i>Zoosystema</i> 25:655-679.</p>	tun
LeClair1	<p><b>2007-2009 Biennial Report: Invasive Species Tunicate Response in the Puget Sound Region</b></p> <p>LeClair, L., A. Pleus, and J. Schultz. 2009. 2007-2009 Biennial report: Invasive species tunicate response in the Puget Sound Region. Washington Department of Fish and Wildlife. Olympia, WA.</p>	tun
MaheuGiroux1	<p><b>Mapping the invasive species Phragmites australis in linear wetland corridors</b></p> <p>Maheu-Giroux, M. and S. de Blois. 2005. Mapping the invasive species Phragmites australis in linear wetland corridors. <i>Aquatic Botany</i>. 83(4): 310-320</p>	phrag
McFadden1	<p><b>An insect out of control? The potential for Spread and establishment of the gypsy moth in new forest areas in the United States</b></p> <p>McFadden, M. W. and M. L. McManus. 1991. An insect out of control? The potential for spread and establishment of the gypsy moth in new forest areas in the United States. In Baranchikov et al., 1991.</p>	gymo
Meng1	<p><b>Wild boars as sources for infectious diseases in livestock and humans</b></p> <p>Meng, X.J., D.S. Lindsay, and N. Sriranganathan. 2009. Wild boars as sources for infectious diseases in livestock and humans. <i>Philosophical Transaction of the Royal Society B-Biological Sciences</i>. 364(1530): 2697-2707.</p>	fesw
Murphy1	<p><b>Progress of the 2006 Spartina eradication program</b></p> <p>Washington State Department of Agriculture. 2007. Progress of the 2006 Spartina eradication program. Olympia, Washington.</p>	spar
Phillips1	<p><b>Progress of the 2007 Spartina eradication program</b></p> <p>Washington State Department of Agriculture. 2008. Progress of the 2007 Spartina eradication program. Olympia, Washington.</p>	spar

Reference ID	Title	Species ID
<b>Pimental3</b>	<b>Update on the environmental and economic costs associated with alien-invasive species in the United States.</b>  Pimentel, D., R. Zuniga, D. Morrison. 2005. Update on the environmental and economic costs associated with alien-invasive species in the United States. <i>Ecological Economics</i> 52 (3), 273–288.	mult
<b>Pitt1</b>	  Pitt, W.C. and G.W. Witmer. 2007. Invasive predators: a synthesis of the past, present, and future. In <i>Predation in organisms - a distinct phenomenon</i> , A.M.T. Elewa, ed., pp. 265-293.	mult
<b>Prestemon1</b>	<b>Some Timber Product Market and Trade Implications of an Invasive Defoliator: The Case of Asian Lymantria in the United States</b>  Prestemon, J.P., J.A. Turner, J. Buongiorno, S. Zhu, and R. Li. 2008. Some timber product market and trade implications of an invasive defoliator: The case of Asian Lymantria in the United States. <i>Journal of Forestry</i> . 106(8): 409-415.	gymo
<b>PSAT1</b>	<b>Washington State's response to an invasion of non-native tunicates</b>  Puget Sound Action Team. 2007. Washington State's response to an invasion of non-native tunicates. Report to the Legislature.	tun
<b>Pyke1</b>	<b>Current practices and future opportunities for policy on climate change and invasive species</b>  Pyke, C.R., R. Thomas, R.D. Porter, J.J. Hellmann, J.S. Dukes, D.M. Lodge, and G. Chavarria. 2008. Current practices and future opportunities for policy on climate change and invasive species. <i>Conservation Biology</i> . 22(3): 585-592.	nutr
<b>Rahel1</b>	<b>Assessing the effects of climate change on aquatic invasive species.</b>  Rahel, F. J. and J. D. Olden. 2008. Assessing the effects of climate change on aquatic invasive species. <i>Conservation Biology</i> 22	mult
<b>Schaffelke1</b>	<b>Introduced macroalgae - a growing concern</b>  Schaffelke, B., J.E. Smith, and C.L. Hewitt. 2006. Introduced macroalgae - a growing concern. <i>Journal of Applied Phycology</i> . 18(3-5): 529-541.	caul
<b>Sheffels1</b>	<b>Report on nutria management and research in the Pacific NW</b>  Sheffels, T. and M. Sytsma. 2007. Report on nutria management and research in the Pacific NW. Center for Lakes and Reservoirs, Portland State University.	nutr

Reference ID	Title	Species ID
<b>Sheley1</b>	<b>Distribution, biology, and management of diffuse knapweed (<i>Centaurea diffusa</i>) and spotted knapweed (<i>Centaurea maculosa</i>).</b>  Sheley, R.L., J.S. Jacobs, and M.F. Carpinelli. 1998. Distribution, biology, and management of diffuse knapweed ( <i>Centaurea diffusa</i> ) and spotted knapweed ( <i>Centaurea maculosa</i> ). <i>Weed Technology</i> . 12(2):353-362.	knap
<b>Shine1</b>	Shine, C., N. Williams, and L. Gundling. 2000. A guide to designing legal and institutional frameworks on alien invasive species. Environmental Policy and Law Paper No. 40, IUCN-Environmental Law Centre, a contribution to the Global Invasive Species Programme.	mult
<b>Thum1</b>	<b>Comparative ecological niche models predict the invasive spread of variable-leaf milfoil (<i>Myriophyllum heterophyllum</i>) and its potential impact on closely related native species</b>  Thum, R.A. and J.T. Lennon. 2010. Comparative ecological niche models predict the invasive spread of variable-leaf milfoil ( <i>Myriophyllum heterophyllum</i> ) and its potential impact on closely related native species. <i>Biological Invasions</i> . 12(1): 133-143.	vlmi
<b>Townsend1</b>	<b>Gypsy moth program summary report</b>  Townsend, J. and R. Taylor. 2009. Gypsy moth program summary report.	gymo
<b>USDAFS1</b>	<b>Gypsy moth management in the United States: a cooperative approach. Final environmental impact statement.</b>  U.S. Department of Agriculture, Forest Service, and APHIS. 1995. Gypsy moth management in the United States: a cooperative approach. Final environmental impact statement. Five volumes. Washington, D.C.	gymo
<b>USOTA1</b>	<b>Harmful non indigenous species in the United States</b>  U.S. Congress Office of Technology Assessment. 1993. Harmful non indigenous species in the United States. U .S. Congress. OTA F 565. Washington, D.C. 39 p.	gymo
<b>Waldner1</b>	<b>The kudzu connection: Exploring the link between land use and invasive species</b>  Waldner, L.S. 2008. The kudzu connection: Exploring the link between land use and invasive species. <i>Land Use Policy</i> . 25(3): 399-409.	mult

Reference ID	Title	Species ID
<b>Williams1</b>	<b>The invasive species challenge in estuarine and coastal environments: Marrying management and science.</b>  Williams, S.L. and E.D. Grosholz. 2008. The invasive species challenge in estuarine and coastal environments: Marrying management and science. Estuaries and Coasts. 31(1): 3-20.	caul; spar
<b>Winton1</b>	Winton, J., G. Kurath, and W. Batts. 2008. Molecular epidemiology of viral hemorrhagic septicemia virus in the Great Lakes Region. U.S. Geological Survey.	vhs

# REPORT 1B: Freshwater Data Files for Inclusion in An

D = spreadsheets or databases      O = other (anecdotal reports)  
 G = spatial data files              P/R = published and unpublished reports  
 I = images

Data#	Filename / Description	Data Type/Notes
<b>Brazilian elodea</b>		
<b>Noxious Weed Control Board, Jefferson County</b>		
<b>O008</b>	<b>no file</b> <i>Anecdotal reports of Brazilian elodea in Lake Leland in Jefferson County from C. Lucero and E. Dixon.</i>	anecdotal report follow up in later phases
<b>Noxious Weed Control Board, King County</b>		
<b>G026</b>	<b>G026.shp</b> <i>Shapefile showing Brazilian elodea observed in King County 2008-2009, with information on presence, area, cover class, and habitat type.</i>	shapefile brazilian elodea files extracted from KC data (InvasiveCouncilWeeds_08_09.shp)
<b>I001</b>	<b>SammR_egeden_worststretch09.JPG, P1010040.JPG,</b> <i>Photos from informal surveys for Brazilian elodea on Sammamish River (AKA Sammamish Slough), conducted by K. Messick of King County.</i>	image
<b>O009</b>	<b>Katie Messick on elodea in KC.doc</b> <i>Brel presence in Lake Dolloff, Sammamish Slough/River, Lake Sammamish, Lake WA, Ship Canal, Lake Union. Haven't seen brel in smaller lakes.</i>	anecdotal report
<b>Skagit County Public Works</b>		
<b>R005</b>	<b>08 Report_Clear Beaver Lakes.pdf, 2009 Year End Re</b> <i>2008 Annual Report on management of other invasives in these Skagit County lakes references one small, floating, dead patch of Brazilian elodea on Beaver Lake; 2009 report does not describe any Brazilian elodea.</i>	report DON'T MAP- FOLLOW UP SURVEYS SUGGEST MISIDENTIFICATION OF BREL
<b>R017</b>	<b>Final Report Big Lake 2002 Final.pdf, Big Lake Survey</b> <i>Series of annual reports from Big Lake Management district in Skagit County on surveys and treatment for Brazilian elodea from 2002-2009. Appears not to be present in 2009.</i>	annual management reports Requested but have not received underlying data from T. Alker at Skagit County and their contractor, Aquatechnex.
<b>University of Washington Herbarium, Burke Museum</b>		
<b>D006</b>	<b>Giblin-elodea.doc</b> <i>UW Herbarium records of Brazilian elodea presence, 1994-2006 (1994 with J. Parsons).</i>	herbarium records txt file with location descriptions; map individual sightings later if needed
<b>G086</b>	<i>Observation of brel near pond on Tum Point, east shore of San Juan Island.</i>	shapefile
<b>WA Department of Agriculture</b>		

<i>Data#</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>D026</b>	<b>Brazilian_elodea_dmap2003.pdf</b> <i>Map of Brazilian elodea distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>	distribution map MAP- LBP FOLLOW UP AND GET SHAPEFILES
<b>WA Department of Ecology</b>		
<b>G036</b>	<b>G036.shp</b> <i>Shapefile on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>	shapefile lat/long mapped; Brazilian elodea extracted
<b>R006</b>	<b>2008 Lone Lake Egeria Eradication Project.doc</b> <i>Annual report on Brazilian elodea eradication efforts and detailed water quality observations in Lone Lake, Island County; submitted to Ecology.</i>	report MAP SINGLE LOCATION FOR BREL, INCLUDE DATES FOR TREND ANALYSIS
<b>R007</b>	<b>KentReporterArticle_6408.pdf</b> <i>News article on the presence and management of Brazilian elodea in Lake Fenwick in Kent.</i>	press See King County data on Brazilian elodea in Lake Fenwick (G026).

**hydrilla****King County Lakes Stewardship**

<b>G035</b>	<b>G035.shp (from pl_all_points.shp)</b> <i>Shapefiles for each year that hydrilla was present (2003-2006) since King County took over eradication efforts at Pipe &amp; Lucerne Lakes. Hydrilla has been absent for 3 yrs in Pipe, 5 yrs in Lucerne.</i>	shapefile Created from pl_all_points.shp, King County file.
<b>I002</b>	<b>IMGP0821.JPG, DSCN1486.JPG, SCUBA 6_24 3.JPG</b> <i>Photos from King County of hydrilla eradication program (informational sign, project divers) in Pipe Lake.</i>	image Follow up for dates?
<b>R010a</b>	<b>Hydrilla Reports from KC email.pdf</b> <i>Annual hydrilla eradication reports '03-'07 online at <a href="http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx">http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx</a>.</i>	report crosscheck w/ KC, Ecology data - G035, G037
<b>R010b</b>	<b>2008_Annual_Report.pdf</b> <i>Annual hydrilla eradication report from 2008 (was not yet online at time of data collection).</i>	report crosscheck w KC, Ecology data - G035, G037

**University of Washington Herbarium, Burke Museum**

<b>D007</b>	<b>Giblin-hydrilla.doc</b> <i>UW Herbarium records of hydrilla presence, 1995, 2002 (with J. Parsons).</i>	herbarium record txt file with location descriptions; map individual sightings later if needed
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**WA Department of Ecology**

<b>G037</b>	<b>G037.shp</b> <i>Data on hydrilla presence in Pipe &amp; Lucerne Lakes, from J. Parsons surveys.</i>	shapefile lat/long mapped; hydrilla extracted
<b>R008</b>	<b>FPE-G0300219.doc</b> <i>Annual report information submitted to Ecology on Pipe &amp; Lucerne Lake hydrilla eradication.</i>	report Check whether duplicates R010a, R010b
<b>R009</b>	<b>HydrillaApr09_Oct09.doc</b> <i>Most recent annual report submitted to Ecology on Pipe &amp; Lucerne Lake hydrilla eradication from King County.</i>	report Check whether duplicates R010a, R010b

<i>Data#</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
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**nutria**

<b>R026</b>	<b>Thesis Final.doc</b> <i>Report from UW students' characterization of nutria around Lake Washington and broader areas.</i>	report
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**Portland State University**

<b>G081</b>	<b>G081</b> <i>Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.</i>	
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<b>O002</b>	<b>washington_nutria.jpg</b> <i>Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.</i>	image MAPPED
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<b>P001</b>	<b>NutriaManagementResearch in PNW.pdf</b> <i>Report summarizing the status of nutria in Washington and Oregon, as well as management options.</i>	management report No action - see O002
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**University of Washington**

<b>D033</b>	<b>nutria_obs.csv</b> <i>UW students have collected data in 10 places around state where nutria are established.</i>	csv do not include; did not respond to data requests
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<b>G087</b>	<i>Shapefile from UW students' spreadsheet of public sightings from a response network (sightings reported by phone or email).</i>	
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<b>O003</b>	<b>none</b> <i>UW and USDA Wildlife Services trapped over 200 nutria on about 40 acres around the University of Washington in 2009. More details under Programs.</i>	anecdotal report MAP- YES. SINGLE POINT WITH DATE, # TRAPPED; REVIEW FOR OVERLAP WITH USDA 2009 DATA (D12)
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**US Department of Agriculture**

<b>D012</b>	<b>Puget Sound Nutria Take.xls</b> <i>Locations where USDA has trapped or shot nutria, with dates and numbers of nutria taken. Data are at county scale to avoid disclosing identity of those requesting services.</i>	spreadsheet - xls MAP- YES. BY COUNTY. INCLUDE ALL DATA.
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**US Geological Survey**

<b>U002d</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.as">http://nas.er.usgs.gov/queries/washington/default3.as</a></b> <i>Information on nutria in Washington, beginning in 1935, as compiled by the USGS in a national database which tracks freshwater species.</i>	database Follow up on Davison report referenced for nutria trapping data in Skagit County.
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<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>Washington Sea Grant</b>		
I005	KAS to complete <i>Photographs of nutria observed near University of Washington in May 2008, at 47° 39' 13.58N 122° 17' 46.63W.</i>	image DON'T MAP



<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>WA Department of Ecology</b>		
<b>G039</b>	<b>G039.shp (from D8_DOE_write 1-19 rpt_KAS.xls, G0_</b> <i>Shapefile of phragmites data collected by J. Parsons of Ecology in surveys.</i>	shapefile lat/long mapped; phragmites extracted
<b>WA Department of Transportation</b>		
<b>G077b</b>	<b>G077b.shp (Knapweed_phragmites.xlsx)</b> <i>Data file describes phragmites observed in WSDOT right-of-way at the Duwamish /1st Ave bridge and on SR 599, noting side of road and mileposts. Points represent reoccurring infestations (2-3 years).</i>	shapefile mapped from D011b.c
<b>WA State Parks &amp; Recreation Commission</b>		
<b>D017</b>	<b>Fort Casey - list of plants in park - 2003.xls</b> <i>Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>	spreadsheet - xls created shapefile (G066)
<b>G066</b>	<b>Whidbey.shp, etc.</b> <i>Data collected by Kathryn Beck and Joseph Arnett for WSPRC. Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>	shapefile mapped from D017
<b>G073c</b>	<b>G073.shp</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed</i>	spreadsheet - xls COMPLETE TO DATE
<b>Washington Sea Grant</b>		
<b>I004</b>	<b>IMG_7155.jpg, P9080012.jpg</b> <i>Photograph of "phragmites island" right off University of Washington in Lake Washington, located at 47' 39" 11.74N 122' 17" 47.34W.</i>	image DON'T MAP

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
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**variable leaf milfoil**

**Noxious Weed Control Board, Pierce County**

<b>R013</b>	<b>Milfoil Grant Report - Oct 30.doc</b> <i>Semi-annual grant report on management and current status of variable leaf milfoil in Blue, Clear (Thurston Co.), and Josephine Lakes.</i>	grant report see G002b, G038
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**Noxious Weed Control Board, Thurston County**

<b>G002b</b>	<b>G002b (june2010.shp)</b> <i>Shapefile of variable leaf milfoil locations in Clear Lake, Thurston County. Shapefile does not show Blue Lake, but R. Johnson says it is solidly infested.</i>	shapefile map - add polygon for Blue Lake ("solidly infested")
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**WA Department of Ecology**

<b>G038</b>	<b>G038.shp</b> <i>Shapefile showing most lakes in Puget Sound with variable leaf milfoil, as collected by J. Parsons in cooperation with others working on eradication in these lakes.</i>	shapefile lat/long mapped; variable leaf milfoil extracted
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<b>O004</b>	<b>O4_Florence Sep 09.jpg</b> <i>Image of variable leaf milfoil presence within Florence Lake, based on J. Parsons GIS files.</i>	image
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<b>R018</b>	<b>G0900241 Variable leaf milfoil eradication.doc</b> <i>Grant agreement between Ecology and Pierce County Noxious Weed Board for eradication and management of variable-leaf milfoil in Blue, Clear, and Florence lakes.</i>	report see G002b, G038
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# REPORT 1B: Marine Data Files for Inclusion in Analysis

D = spreadsheets or databases      O = other (anecdotal reports)  
 G = spatial data files              P/R = published and unpublished reports  
 I = images

<i>Datal</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>spartina</b>		
<b>Noxious Weed Control Board, Jefferson County</b>		
<b>O007</b>	<b>N/A</b> <i>Anecdotal communications that Spartina has been observed in Discovery Bay (C. Lucero) and at the mouth of the Dosewallips River (E. Dixon), both in Jefferson County.</i>	anecdotal report DON'T MAP- ALREADY HAVE SPARTINA DATA
<b>Noxious Weed Control Board, King County</b>		
<b>O001</b>	<b>none</b> <i>Anecdotal communication that Spartina was observed on Vashon Island several years ago.</i>	anecdotal report do not include? Do not have more specific data.
<b>Noxious Weed Control Board, San Juan County</b>		
<b>D010b</b>	<b>Spt_survey_2008 copy.jpg</b> <i>Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.</i>	image - aerial extent check map point alignment with G068
<b>D010c</b>	<b>Spt_survey_Wescott_marsh_2008.jpg</b> <i>Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.</i>	images check map point alignment with G068
<b>G068</b>	<b>G068.shp</b> <i>Spartina found on San Juan, Lopez, Orcas, and Decatur Islands.</i>	shapefile map points in images D010b,c? shapefile created from data included in emails D009-D009c; 2007 data? CHECK FOR CONSISTENCY WITH MAP IMAGE- FOLLOW UP WITH SJC FOR BETTER IMAGE (GAD, LBP)- BE SURE TO NOTE SPARTINA V. KNAPWEED
<b>Oregon State University</b>		
<b>D020</b>	<b>Spartina Spray Records.xls (1997-2008; no 2001)</b> <i>Records describing where spraying for spartina conducted (mostly or just in Snohomish County) and with what partners.</i>	spreadsheet - xls DON'T MAP- ALREADY HAVE SPARTINA DATA
<b>People for Puget Sound</b>		
<b>G048</b>	<b>G048.shp (Survey_Coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.</i>	shapefile

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>G049</b>	<b>G049.shp (XYIsland.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.</i>	shapefile
<b>G050</b>	<b>G050.shp (Survey_Coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.</i>	shapefile
<b>G051</b>	<b>G051.shp (XYSanJuan.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.</i>	shapefile
<b>G052</b>	<b>G052.shp (Survey_coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.</i>	shapefile
<b>G053</b>	<b>G053.shp (XYSkagit.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.</i>	shapefile
<b>G054</b>	<b>G054.shp (survey_coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.</i>	shapefile
<b>G055</b>	<b>G055.shp (XYWhatcom.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.</i>	shapefile
<b>G056</b>	<b>G056.shp (2008Survey_coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and Whatcom Counties in 2008.</i>	shapefile
<b>G057</b>	<b>G057.shp (2008_Spartina_data.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and Whatcom Counties in 2008.</i>	shapefile
<b>G058</b>	<b>G058.shp (2007_survey_coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.</i>	shapefile
<b>G059</b>	<b>G059.shp (2007_Spartina_data.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.</i>	shapefile

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## **Swinomish Tribe**

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<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>G047a</b>	<b>G047a.shp (Spartina.shp)</b> <i>Polygon of S. anglica distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.</i>	shapefile include
<b>G047b</b>	<b>G047b.shp (Spartina_Isolated.shp)</b> <i>Point file of S. anglica distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.</i>	shapefile include
<b>University of Washington Herbarium, Burke Museum</b>		
<b>D004</b>	<b>Giblin-spartina.doc</b> <i>UW Herbarium records of Spartina presence, 1902-2005.</i>	herbarium records txt file with location descriptions; map individual sightings later if needed
<b>WA Department of Agriculture</b>		
<b>G018</b>	<b>G018.shp</b> <i>Shape file showing Spartina population status Sound-wide as of 2008. Categories shown are monitored/eradicated, 1 acre or less, 1 to 5 acres, 6-50 acres, &gt; 50 acres.</i>	shapefile complete
<b>G060</b>	<b>G060.shp (SpartinaPS2009Sites.shp)</b> <i>Data from statewide Spartina surveys and treatment in 2009.</i>	shapefile
<b>P002</b>	<b>WSDASpartinaReport2007.pdf, hard copies of 2008 &amp; 2009 draft reports</b> <i>Annual reports to the Legislature on Spartina control with information on acreage, distribution, eradication efforts, partners, etc. Recieved DRAFT of 2008, 2009 reports from C. Phillips, not for distribution.</i>	annual report no action
<b>WA State Parks &amp; Recreation Commission</b>		
<b>G065</b>	<b>Dosewallips.shp, etc.</b> <i>Collected by Pacific Biodiversity Institute for WSPRC. Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.</i>	shapefile complete
<b>G073b</b>	<b>G073.shp</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed</i>	spreadsheet - xls COMPLETE TO DATE
<b>P009</b>	<b>Deception Pass SP - Vegetation Survey Report.pdf</b> <i>Description of Spartina around Cornet Bay in Deception Pass State Park as observed in vegetation surveys in 2008-2009. The Spartina was mapped and a treatment plan described.</i>	report data mapped in G062

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>P010</b>	<b>Dosewallips - veg assoc and rare plant report.doc</b> <i>Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.</i>	report See G065 for associated shapefile.
<b>Washington Sea Grant</b>		
<b>I003</b>	<b>P5220019.jpg, P5220020.jpg</b> <i>Photograph of Spartina observed on the way to Camano Island.</i>	image DON'T MAP- ALREADY HAVE SPARTINA DATA

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
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**tunicates**

**REEF Environmental Education Foundation**

<b>G076a</b>	<b>G076a</b> <i>All tunicate sightings in REEF's Washington database (176 records). Sightings from a given survey share a form number. Both novice and expert data are included.</i>	online report mapped from D021a,b; some points missing XY coordinates
<b>G076b</b>	<b>G076b.shp</b> <i>All Type 2 and Type 3 REEF surveys conducted since 4/1/2006 in WA in REEF's database (REEF surveys have been conducted since 1998, tunicates were added in 2006). See ReadMe file.</i>	online report mapped from D021c,b; some points missing XY coordinates
<b>I007</b>	<b><a href="http://nwgeogirl.smugmug.com/Invasive-Tunicates">http://nwgeogirl.smugmug.com/Invasive-Tunicates</a></b> <i>Photographs of the three invasive tunicates.</i>	image
<b>O012</b>	<b>REEFGBPS2009.pdf</b> <i>Poster on REEF's survey and education efforts, showing data collected to date, presented at Puget Sound Georgia Basin conference.</i>	poster

**Skokomish Tribe**

<b>G067</b>	<b>Point_ge.shp, etc.</b>	shapefile  LBP FOLLOW UP FOR NEW FILE OR PROJECTION DEFINITION; DESCRIPTION OF ALIGNMENT WITH D031
<b>R014</b>	<b>Pleasant Harbor Report.doc</b> <i>Report on S. clava removal in Blaine, Pleasant Harbor, and Neah Bay.</i>	progress report  Erin Grey's work already shows S. clava still present 2005-2009 after removal efforts. Do we need to follow up for other data?
<b>R023</b>	<b>Ciona report.doc</b> <i>Report on C. savignyi, same as Appendix 3 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>	project report  received data but projection issue (G067, D031)

**Tulane University**

<b>G071</b>	<b>G071.shp</b> <i>Data on Styela clava abundance and recruitment at Pleasant Harbor Marina (abundance data for 2005, 2007-8 forthcoming). E. Grey notes that WDFW attempted removal at this marina in 2006 or 2007.</i>	abundance and recruitment data created shapefile from D014, P003
<b>P003</b>	<b>Grey 2008.pdf</b> <i>Peer-reviewed paper describing surveys of marine docks for invasive tunicates. Did not observe Didemnum or C. savignyi, found S. clava at one site. See <a href="http://home.uchicago.edu/~egrey/index.html">http://home.uchicago.edu/~egrey/index.html</a></i>	peer-reviewed lit on survey mapped - see G071

**University of Washington - Friday Harbor Labs**

<i>Data#</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>D024</b>	<b>Washington State invasive tunicates Gretchen Lambert June 2007.xls</b>  <i>Tunicate survey data from Lambert &amp; Lambert shown in Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates, plus other diver data collected since 2006.</i>	spreadsheet  MAP- REQUEST FILE REVISION FROM g.L. (GAD DRAFT TEMPLATE); CHECK FOR ALIGNMENT WITH ERIN GREY MARINA COORD, PLACE NAMES SHAPEFILE, DOE SHORELINE MANAGEMENT PROJECT (MARINA NAMES?)
<b>R024</b>	<b>Washington State invasive tunicate survey for WDFW.doc</b>  <i>Report summarizing survey data included in D24, similar to Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>	report  see D024 about mapping marinas
<b>WA Department of Fish &amp; Wildlife</b>		
<b>G084</b>	<b>2005_2007WDFWTahuyaSurveys</b>  <i>The layer WDFWTahuyaSurvey2005 contains records showing the positions of all of the transects that were completed during the October, 2005 survey of the Tahuya geoduck tract. In the field C_Sav_P_A, P indicates that Ciona savignyi was present on the transect.</i>	geodatabase
<b>R011</b>	<b>WDFW2009.pdf</b>  <i>Biennial report which describes 100 sites surveyed for tunicates, with 31 sites containing one of the three invasive species, and count data at specific sites. Have requested data from WDFW.</i>	biennial report to legislature  Have requested underlying data from WDFW.
<b>R015</b>	<b>PSAT2007.pdf</b>  <i>Report from the Puget Sound Action Team summarizing the state's response to non-native tunicates. Includes several data sets (R23, R24, D24).</i>	report  see R023, R024, D024
<b>R025</b>	<b>hoodcanal_hb1896.pdf</b>  <i>This report describes tunicates observed during surveys to document geoduck populations. Divers noted high abundance of tunicates in the Tahuya River delta in 2005. No tunicates were observed in subsequent surveys in 2007 or previously in 1996.</i>	report  have requested data and expect it to be forthcoming.
<b>WA Department of Natural Resources</b>		
<b>R012</b>	<b>CohenetalRapidAssessment1998.pdf</b>  <i>Surveys conducted of harbors, marinas, and natural areas in 1998, for invasive species including tunicates. Appendix 6 (page 33) summarizes findings with respect to tunicates.</i>	report  see D024 about mapping marinas

<i>Data#</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
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**VHS type IVa (Viral Hemorrhagic Septicemia Virus IVa genotype)**

**Northwest Indian Fisheries Commission**

<b>G078</b>	<b>VHSV detections in database.pdf, VHSV detections by watershed.pdf, VHSV IVb Great Lakes Epidem USGS.pdf</b>  <i>Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).</i>	shapefile  DETECTIONS (Iva) AT HATCHERIES MAPPED; LBP FOLLOW UP RE. OTHER AGENCY MONITORING LOCATIONS (Ivb??), also LBP to follow up on detections, locations and negatives data
<b>R016</b>	<b>VHSV detections in database.pdf, VHSV detections by watershed.pdf, VHSV IVb Great Lakes Epidem USGS.pdf</b>  <i>Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).</i>	report from database  MAPPED- SEE G078



# REPORT 1B: Terrestrial Data Files for Inclusion in Anal

D = spreadsheets or databases      O = other (anecdotal reports)  
 G = spatial data files                P/R = published and unpublished reports  
 I = images

Data	Filename / Description	Data Type/Notes
<b>gypsy moths</b>		
<b>WA Department of Agriculture</b>		
<b>G041</b>	<b>G041.shp (AGMDetectionsArchiveWSDA.shp)</b> <i>Shapefile showing all Asian gypsy moth detections recorded via WSDA survey efforts from 1972 - present day.</i>	shapefile complete
<b>G042</b>	<b>G042.shp (GMDetects_07_09.shp)</b> <i>Shapefile showing all European gypsy moth detections via WSDA survey efforts from 2007, 2008, and 2009.</i>	shapefile complete
<b>G043</b>	<b>G043.shp (GypsyMoth_WSDA2007.shp)</b> <i>Shapefile showing all WSDA trap placements statewide, 2007.</i>	shapefile complete
<b>G044</b>	<b>G044.shp (GypsyMoth_WSDA2008.shp)</b> <i>Shapefile showing all WSDA trap placements statewide, 2008.</i>	shapefile complete
<b>G045</b>	<b>G045.shp (GypsyMoth_WSDA2009.shp)</b> <i>Shapefile showing all WSDA trap placements statewide, 2009.</i>	shapefile complete
<b>O010</b>	<b>none</b> <i>Data files from WSDA surveys 1972-2006 are in paper forms, with addresses but no gps coordinates for the ~25,000 traps set annually. All detections are shown in G41 and G42.</i>	hardcopy trap records no action
<b>P004a</b>	<b>GM Summary Report.pdf</b> <i>WSDA's annual report on gypsy moth surveys. See also at <a href="http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports">http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports</a></i>	annual report no action
<b>P004b</b>	<b>GM Survey.pdf</b> <i>WSDA presentation on gypsy moth surveys.</i>	powerpoint describing program no action

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
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## knapweeds

### National Forest, Mt. Baker-Snoqualmie

<b>G040</b>	<b>mbs_knapweed_2010_not_kittitas.shp</b> <i>Knapweed locations documented in Mt Baker-Snoqualmie NF from 1997-2008. Data were provided by many people to L. Martin, in many cases "with a scribble on a map or a verbal description."</i>	shapefile MAP- YES. LBP FOLLOW UP WITH PHONE CALL.
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### National Park, Mount Rainier

<b>D030</b>	<b>Spotted Knapweed Locations.xls</b> <i>Data on mile markers where spotted knapweed found &amp; controlled. Locations primarily verbally documented, and are mostly on East side of park (not in PS).</i>	Observations with mile marker locations GAD LOOK FOR HWY FILE WITH MILEPOINTS- THEN ROUGH GUESS OF POINTS IN PSB TO IDENTIFY # OF POINTS IN PSB
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### National Park, Olympic

<b>D019</b>	<b>NPS_Knapweed.xls</b> <i>Description of one knap population in Olympic NP with estimated location and extent; has been present since before 2002 and may be treated in 2011.</i>	lat/long and coverage MAP- CREATE SINGLE POINT (LBP SEND EMAIL NOTES)
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<b>G083</b>	<b>G083</b>	
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### Noxious Weed Control Board, Clallam County

<b>G023</b>	<b>G023.shp (from ceja.shp)</b> <i>Shapefile of meadow knapweed in Clallam County. Have lots of meadow knapweed. Hotspots are W. of Port Angeles, Olympic Hot Springs Road, behind Sequim in Burnt Hill (old sheep raising), along hwy.</i>	shapefile modified to show meadow knap only
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<b>G024</b>	<b>G024.shp (from spottedknapweed.shp)</b> <i>Shapefile of spotted knapweed in Clallam County. Have limited spotted knapweed.</i>	shapefile modified to show spotted knap only
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### Noxious Weed Control Board, Jefferson County

<b>G029</b>	<b>G029.shp (from meadow knapweed.shp)</b> <i>Shapefile of meadow knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Two large infestations on W. Valley Rd. outside Chimacum.</i>	shapefile complete
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<b>G031</b>	<b>G031.shp (from spotted knapweed.shp)</b> <i>Shapefile of spotted knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Spotted knapweed is popping up along highways in J. County.</i>	shapefile complete
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<i>Data#</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>G033</b>	<b>G033.shp (from mis species_mod.shp)</b> <i>Shapefile of big head knapweed in Jefferson County (a few sites). Populations noted by points, size not estimated. Federal lands not covered.</i>	shapefile complete
<b>Noxious Weed Control Board, King County</b>		
<b>G027</b>	<b>G027.shp (from InvasiveCouncilWeeds_08_09.shp)</b> <i>Shapefile of knapweed in King County, 2008-2009, with information on presence, area, cover class, and habitat type.</i>	shapefile 2008-2009 knapweed data extracted from King County
<b>Noxious Weed Control Board, Kitsap County</b>		
<b>G072</b>	<b>G072.shp (from 2009.xls)</b> <i>Locations of noxious weeds in Kitsap County. Only one knapweed site noted, at Olalla Valley Rd in Port Orchard.</i>	shapefile complete
<b>Noxious Weed Control Board, Lewis County</b>		
<b>G034</b>	<b>G034.shp</b> <i>Knapweed sightings along roadsides in Gifford Pinchot NF in the Lewis County portion of the Nisqually Watershed in 2005-2007. B. Wamsley expects data is just from uplands, not in stream corridor.</i>	shapefile complete
<b>Noxious Weed Control Board, Pierce County</b>		
<b>D016</b>	<b>Knapweed Data for Cascadia.xls</b> <i>Locations (addresses and some lat/long) where knapweed notices have been issued in Pierce County. They are updating database to incorporate habitat and trends/pathways in these observations.</i>	spreadsheet Map YES? ~300 addresses, not sortable, would require mapping all points individually- CREATE SHAPEFILE OF PIERCE COUNTY PRESENCE- REVIEW FOR ANY POSSIBLE TREND DATA
<b>Noxious Weed Control Board, San Juan County</b>		
<b>D010</b>	<b>Top Weeds per Island Map E_Size.pdf</b> <i>Pdf map of 2007 knapweed survey data on Lopez, Orcas, and San Juan Islands.</i>	map of coverage check map points for alignment with G006b,c, G069 shapefiles
<b>G069</b>	<b>G069.shp</b> <i>shapefile created from data included in emails D009</i>	shapefile created shapefile from D009, check against D010, G006ab,c, G061
<b>Noxious Weed Control Board, Skagit County</b>		
<b>D013</b>	<b>SkagitCoKnapweed.pdf</b> <i>Map from assessor's database showing one knapweed location in Skagit County (Sharp's corner in Anacortes, by Hart Lake, along Hwy 20). B. Rogers says others are on tribal, federal land.</i>	map of single population MAP SINGLE POINT? SKAGIT, KNAP
<b>G082</b>	<b>G082</b>	

<i>Data#</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>Noxious Weed Control Board, Thurston County</b>		
G021	G021.shp <i>Shapefile of knapweed in Thurston County.</i>	shapefile knapweed extracted and clipped to PSB
<b>Noxious Weed Control Board, Whatcom County</b>		
G070	G070.shp (from Whatcom knapweeds 2010.xls) <i>Locations where ongoing monitoring is occurring of about 300 spotted knap, 200 meadow knap sites. L Baldwin says "some far-flung sites, e.g., Newhalem, not included."</i>	shapefile created shapefile from D022 - Whatcom knapweeds 2010.xls
<b>Oregon State University</b>		
G017	G017.shp (Spotted Knapweed selection 1999.shp) <i>Shapefile of spotted knapweed in Lewis County.</i>	shapefile complete
<b>San Juan County Public Works</b>		
G006b	G006b (Weed_Lines08.shp) <i>Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.</i>	shapefile include; shows absence of knap on outer islands; check for relationship to D009 points, D010 image
G006c	G006c.shp (Weeds_Points_08.shp) <i>Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.</i>	shapefile include; shows absence of knap on outer islands; check for relationship to D009 points, D010 image
G028	G028.shp <i>Shapefile of knapweed on San Juan, Lopez, and Orcas Islands in 2007 from San Juan Public Works. Species codes are cenmac, cenpra, and censto.</i>	shapefile created shapefile from G006a
G061	G061.shp (Nox_weeds09.shp) <i>Shapefile of knapweed distribution on San Juan Islands.</i>	shapefile mapped
<b>Swinomish Tribe</b>		
G046a	G046a.shp (from knapweed.gdb) <i>Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase</i>	shapefile complete
G046b	G046b.shp (from knapweed.gdb) <i>Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase</i>	shapefile complete
<b>University of Washington Herbarium, Burke Museum</b>		

<i>Data#</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>D002</b>	<b>Giblin-knapweed.doc</b> <i>UW Herbarium records of knapweed presence, 1923-2007.</i>	herbarium records txt file with location descriptions; map individual sightings later if needed
<b>US Forest Service - Olympic National Forest</b>		
<b>G022</b>	<b>G022.shp (from ONF_knapweeds.shp)</b> <i>Shapefile of knapweed in Olympic National Forest, from surveys conducted 1997-2003. Now in treatment phase.</i>	shapefile clipped to PSB
<b>WA Department of Agriculture</b>		
<b>D027</b>	<b>Brown_knap_dmap2003.pdf</b> <i>Map of brown knapweed (C. jacea) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>	distribution map MAP- LBP FOLLOW UP AND GET SHAPEFILES
<b>D028</b>	<b>Black_knap_dmap2003</b> <i>Map of black knapweed (C. nigra) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>	distribution map MAP- LBP FOLLOW UP AND GET SHAPEFILES
<b>D029</b>	<b>Diffuse_knap_dmap2003</b> <i>Map of diffuse knapweed (C. diffusa) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>	distribution map MAP- LBP FOLLOW UP AND GET SHAPEFILES
<b>WA Department of Transportation</b>		
<b>G077a</b>	<b>G077a.shp (Knapweed_phragmites.xlsx)</b> <i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts and maximize control efforts.</i>	shapefile mapped from D011a,b
<b>WA State Parks &amp; Recreation Commission</b>		
<b>G063</b>	<b>FederationForest.shp, etc.</b> <i>Data collected by Pacific Biodiversity Institute for WSPRC. Knapweed noted as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.</i>	shapefile complete
<b>G064</b>	<b>NisquallyMashel.shp, etc.</b> <i>Data collected by LYRA Biological for WSPRC. Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel State Park in 2006.</i>	shapefile complete
<b>G073a</b>	<b>G072.shp</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Knapweed found in 4 of 56 parks surveyed</i>	spreadsheet - xls COMPLETE TO DATE

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>P005</b>	<b>Birch Bay SP Vegetation Survey.pdf</b> <i>Report describing mapped observations of knapweed in Birch Bay State Park during vegetation surveys in 2008.</i>	report MAPPED - Received underlying data from R. Fimbel
<b>P006</b>	<b>Federation Forest - veg assoc and rare plant report - 2</b> <i>Report noting knapweed as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.</i>	report complete
<b>P007</b>	<b>Final Lake Isabella SP.pdf</b> <i>Report describing knapweed as located along the northern pastures of Lake Isabella State Park during vegetation surveys in 2009.</i>	report complete
<b>P008</b>	<b>Final Nisqually.pdf</b> <i>Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel State Park in 2006.</i>	report complete



# REPORT 1C: Freshwater Data Files - ALL REVIEWED

D = spreadsheets or databases  
 G = spatial data files  
 I = images

O = other (anecdotal reports)  
 P/R = published and unpublished reports

X = file not yet received  
 \_dni = do not include

Data	Filename / Description	Data Type/Notes
<b>Brazilian elodea</b>		
<b>Noxious Weed Control Board, Island County</b>		
X002	no file  <i>S. Horton may have data on Brazilian elodea presence and control efforts on Lone Lake (funded by Ecology).</i>	type unknown  follow up on underlying data from Lone Lake elodea treatment funded by Ecology (R6)
<b>Noxious Weed Control Board, Jefferson County</b>		
O008	no file  <i>Anecdotal reports of Brazilian elodea in Lake Leland in Jefferson County from C. Lucero and E. Dixon.</i>	anecdotal report  follow up in later phases
<b>Noxious Weed Control Board, King County</b>		
_dniG	InvasiveCouncilWeeds_08_09.shp  <i>Presence, area, cover class, habitat type of Brazilian elodea in King County. Have shape file point data for Brazilian elodea</i>	shapefile  do not include; see derivative files G26
G026	G026.shp  <i>Shapefile showing Brazilian elodea observed in King County 2008-2009, with information on presence, area, cover class, and habitat type.</i>	shapefile  brazilian elodea files extracted from KC data (InvasiveCouncilWeeds_08_09.shp)
I001	SamR_egeden_worststretch09.JPG, P1010040.JPG, P  <i>Photos from informal surveys for Brazilian elodea on Sammamish River (AKA Sammamish Slough), conducted by K. Messick of King County.</i>	image
O009	Katie Messick on elodea in KC.doc  <i>Brel presence in Lake Dolloff, Sammamish Slough/River, Lake Sammamish, Lake WA, Ship Canal, Lake Union. Haven't seen brel in smaller lakes.</i>	anecdotal report
<b>Noxious Weed Control Board, Kitsap County</b>		
XR022	no file  <i>Long Lake Management Plan for Brazilian elodea, Kitsap County. D. Coggon referenced but did not share. Also see <a href="http://www.longlakecill.org/">http://www.longlakecill.org/</a></i>	management plan  Request management plan/associated files from D. Coggon and/or Ecology.
XR024	no file  <i>Kitsap Lake Management Plan for Brazilian elodea management in Kitsap Lake, Kitsap County. D. Coggon did not share but referenced .</i>	management plan  Request management plan/associated files from D. Coggon and/or Ecology.
<b>Noxious Weed Control Board, Lewis County</b>		
_dni	N/A  <i>Ecology grant report</i>	grant report  do not include - not in Puget Sound
<b>Noxious Weed Control Board, Thurston County</b>		

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
_dniG	allpoints.shp, allpoly.shp  <i>current elodea baseline files on the Chehalis River in 2009. All Brazilian elodea in Thurston County is in Chehalis river basin, thus not in PS.</i>	shapefile  do not include; all brel in Chehalis, not PS basin
<b>Skagit County Public Works</b>		
R005	08 Report_Clear Beaver Lakes.pdf, 2009 Year End Report  <i>2008 Annual Report on management of other invasives in these Skagit County lakes references one small, floating, dead patch of Brazilian elodea on Beaver Lake; 2009 report does not describe any Brazilian elodea.</i>	report  DON'T MAP- FOLLOW UP SURVEYS SUGGEST MISIDENTIFICATION OF BREL
R017	Final Report Big Lake 2002 Final.pdf, Big Lake Survey 20  <i>Series of annual reports from Big Lake Management district in Skagit County on surveys and treatment for Brazilian elodea from 2002-2009. Appears not to be present in 2009.</i>	annual management reports  Requested but have not received underlying data from T. Alker at Skagit County and their contractor, Aquatechnex.
<b>University of Washington Herbarium, Burke Museum</b>		
D006	Giblin-elodea.doc  <i>UW Herbarium records of Brazilian elodea presence, 1994-2006 (1994 with J. Parsons).</i>	herbarium records  txt file with location descriptions; map individual sightings later if needed
G086	  <i>Observation of brel near pond on Turn Point, east shore of San Juan Island.</i>	shapefile
<b>US Fish &amp; Wildlife Service</b>		
_dni	no file  <i>He originally indicated USFWS had data, but they do not, although they fund Rick Johnson's work on Brazilian elodea in the Chehalis (not in PS).</i>	N/A  do not include; does not have data
<b>US Geological Survey</b>		
_dniU	<a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a>  <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>	database  do not include as does not include any new datasets.
<b>WA Department of Agriculture</b>		
D026	Brazilian_elodea_dmap2003.pdf  <i>Map of Brazilian elodea distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>	distribution map  MAP- LBP FOLLOW UP AND GET SHAPEFILES
<b>WA Department of Ecology</b>		
_dniD	D8_DOE_wria 1-19 rpt_KAS.xls  <i>Data on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>	spreadsheet - xls  Do not include, source file. BUT follow up with J. Parsons about more detailed data.
_dniG	G0_wria_rpt.shp  <i>Data on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>	shapefile  Do not include, source file. BUT follow up with J. Parsons about more detailed data.

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
_dniR	FPE - G0300002 Elodea_Hydrilla.doc and many others <i>Grant reports on Brazilian elodea control and management. Relevant documents have all been listed separately.</i>	report Do not include; summary file only. See separate data files.
_dniR	Plummer Q3-09.pdf <i>Control and monitoring of elodea in Plummer Lake, Chehalis River</i>	report do not include: not in Puget Sound basin
G036	G036.shp <i>Shapefile on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>	shapefile lat/long mapped; Brazilian elodea extracted
R006	2008 Lone Lake Egeria Eradication Project.doc <i>Annual report on Brazilian elodea eradication efforts and detailed water quality observations in Lone Lake, Island County; submitted to Ecology.</i>	report MAP SINGLE LOCATION FOR BREL, INCLUDE DATES FOR TREND ANALYSIS
R007	KentReporterArticle_6408.pdf <i>News article on the presence and management of Brazilian elodea in Lake Fenwick in Kent.</i>	press See King County data on Brazilian elodea in Lake Fenwick (G026).
XG	no file <i>J. Parsons may be able to share more detailed data on where Brazilian elodea was observed within specific lakes.</i>	shapefile? follow up with email to get shapefiles if needed

**hydrilla****King County Lakes Stewardship**

_dniG	pl_all_points.shp <i>Shapefiles for each year that hyd was present (2003-2006) since King County took over eradication efforts at Pipe &amp; Lucerne Lakes. Hyd has been absent for 3 years in Pipe Lk, 5 years in Lucerne Lk.</i>	shapefile do not include; see derivative file G35
G035	G035.shp (from pl_all_points.shp) <i>Shapefiles for each year that hydrilla was present (2003-2006) since King County took over eradication efforts at Pipe &amp; Lucerne Lakes. Hydrilla has been absent for 3 yrs in Pipe, 5 yrs in Lucerne.</i>	shapefile Created from pl_all_points.shp, King County file.
I002	IMG0821.JPG, DSCN1486.JPG, SCUBA 6_24 3.JPG <i>Photos from King County of hydrilla eradication program (informational sign, project divers) in Pipe Lake.</i>	image Follow up for dates?
R010a	Hydrilla Reports from KC email.pdf <i>Annual hydrilla eradication reports '03-'07 online at <a href="http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx">http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx</a>.</i>	report crosscheck w/ KC, Ecology data - G035, G037
R010b	2008_Annual_Report.pdf <i>Annual hydrilla eradication report from 2008 (was not yet online at time of data collection).</i>	report crosscheck w KC, Ecology data - G035, G037

**Skaqit County Public Works**

_dniR	- <i>Hyd not documented in any of these reports</i>	- do not include; hyd not reported in any lakes
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**University of Washington Herbarium, Burke Museum**

D007	Giblin-hydrilla.doc <i>UW Herbarium records of hydrilla presence, 1995, 2002 (with J. Parsons).</i>	herbarium record txt file with location descriptions; map individual sightings later if needed
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**US Geological Survey**

_dniU	<a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>	database do not include as no new datasets revealed in this database.
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**WA Department of Ecology**

_dniD	D8_DOE_wria 1-19 rpt_KAS.xls <i>Data on hydrilla presence in Pipe &amp; Lucerne Lakes, from J. Parsons surveys. Also see <a href="http://www.ecy.wa.gov/programs/eap/lakes/aquaticplants/index.html#annualsurvey">http://www.ecy.wa.gov/programs/eap/lakes/aquaticplants/index.html#annualsurvey</a></i>	spreadsheet - xls Do not include, source file. BUT follow up with J. Parsons about more detailed data
_dniG	G0_wria_rpt.shp <i>Data on hydrilla presence in lakes basin wide, collected by J. Parsons of Ecology in surveys. Has only documented hydrilla in Pipe &amp; Lucerne Lakes, King County.</i>	shapefile Do not include, source file. BUT follow up with JP about more detailed data

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
G037	G037.shp <i>Data on hydrilla presence in Pipe &amp; Lucerne Lakes, from J. Parsons surveys.</i>	shapefile lat/long mapped; hydrilla extracted
R008	FPE-G0300219.doc <i>Annual report information submitted to Ecology on Pipe &amp; Lucerne Lake hydrilla eradication.</i>	report Check whether duplicates R010a, R010b
R009	HydrillaApr09_Oct09.doc <i>Most recent annual report submitted to Ecology on Pipe &amp; Lucerne Lake hydrilla eradication from King County.</i>	report Check whether duplicates R010a, R010b
XG	no file <i>J. Parsons may be able to share more detailed data on where hydrilla was observed within Pipe &amp; Lucerne Lakes. This may compliment 2003-2006 data from King County (G35).</i>	shapefile? follow up with email to get shapefiles if needed

**nutria**

R026 Thesis Final.doc report

*Report from UW students' characterization of nutria around Lake Washington and broader areas.*

**Noxious Weed Control Board, Skagit County**

\_dniO none anecdotal report of nutria trapping

*WDFW (or USDA) was catching nutria at Barnaby Lake last year? Cross check with D12, may be able to put a finer point on some of those data.* Is this worth including? Very low quality.

**Portland State University**

G081 G081

*Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.*

O002 washington\_nutria.jpg image

*Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.* MAPPED

P001 NutriaManagementResearch in PNW.pdf management report

*Report summarizing the status of nutria in Washington and Oregon, as well as management options.* No action - see O002

**University of Washington**

D033 nutria\_obs.csv csv

*UW students have collected data in 10 places around state where nutria are established.* do not include; did not respond to data requests

G087

*Shapefile from UW students' spreadsheet of public sightings from a response network (sightings reported by phone or email).*

O003 none anecdotal report

*UW and USDA Wildlife Services trapped over 200 nutria on about 40 acres around the University of Washington in 2009. More details under Programs.* MAP- YES. SINGLE POINT WITH DATE, # TRAPPED; REVIEW FOR OVERLAP WITH USDA 2009 DATA (D12)

**US Department of Agriculture**

D012 Puget Sound Nutria Take.xls spreadsheet - xls

*Locations where USDA has trapped or shot nutria, with dates and numbers of nutria taken. Data are at county scale to avoid disclosing identity of those requesting services.* MAP- YES. BY COUNTY. INCLUDE ALL DATA.

**US Geological Survey**

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
U002d	<a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a> <i>Information on nutria in Washington, beginning in 1935, as compiled by the USGS in a national database which tracks freshwater species.</i>	database Follow up on Davison report referenced for nutria trapping data in Skagit County.
<b>WA Department of Fish &amp; Wildlife</b>		
_dniR	SightingsReportedtoWDFW.doc <i>Several emails describing spottings of nutria.</i>	emails describing presence
<b>Washington Sea Grant</b>		
I005	KAS to complete <i>Photographs of nutria observed near University of Washington in May 2008, at 47° 39' 13.58N 122° 17' 46.63W.</i>	image DON'T MAP

**common reed****EarthCorps**

G079 Seattle\_Public\_Lands\_Survey.mdb spatial

*SUN mapped types of vegetation in Seattle parks, green belts, and other open spaces. Digitized habitat region delineations for use in GIS. Of WISC 15 priority species, only common reed detected.*

**Noxious Weed Control Board, Clallam County**

\_dniO no file anecdotal report

*Has been identified in one location along Hwy 104 at milepost 10.5. See file G032.*

do not include. Is same location as mapped by E. Dixon in G032.

**Noxious Weed Control Board, Jefferson County**

\_dniG misc species\_mod.shp shapefile

*Knows of and has mapped one site of phragmites, along SR 104.*

do not include; created new file; extracted single species

G032 G032.shp (from misc species\_mod.shp)

shapefile

*Shapefile of phragmites in Jefferson County, showing one site mapped along SR 104.*

extracted single species

**Noxious Weed Control Board, King County**

\_dniG InvasiveCouncilWeeds\_08\_09.shp shapefile

*Presence, area, cover class, habitat type*

Do not include; see derivative file G25

G025 G025.shp (from InvasiveCouncilWeeds\_08\_09.shp)

shapefile

*Shapefile of phragmites in King County in 2008-2009, with information on presence, area, cover class, and habitat type.*

phragmites files extracted from KC data

**Noxious Weed Control Board, Kitsap County**

X008 no file unknown

*D. Coggon may be able to share data on phragmites in Kitsap County.*

Follow up with D. Coggon

XR027 no file

report

*D. Coggon may be able to share reports on phragmites in Kitsap County.*

follow up with D. Coggon.

**Noxious Weed Control Board, Thurston County**

\_dniG invasivespeciescouncil.shp shapefile

<http://www.co.thurston.wa.us/tcweeds/special-projects.htm>

Do not include; see derivative file G020

G020 G020.shp (from invasivespeciescouncil.shp)

shapefile

*Shapefile of phragmites in Thurston County. Also see <http://www.co.thurston.wa.us/tcweeds/special-projects.htm>*

phragmites extracted and clipped to PSB

**Noxious Weed Control Board, Whatcom County**

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
_dniD	Baldwin Phragmites.pdf <i>Location of treatment of an ~250 sq. ft. population of phragmites on Whatcom Creek in Bellingham, at bridge on Holly Street (N48 45.223 W122 29.020).</i>	treatment description mapped to G075
G075	G075.shp <i>Location of treatment of an ~250 sq. ft. population of phragmites on Whatcom Creek in Bellingham, at bridge on Holly Street (N48 45.223 W122 29.020).</i>	shapefile mapped from coordinates in D023
I006	IMG_6184.jpg IMG_6178.jpg <i>Photographs of phragmites on Whatcom Creek in Bellingham which was treated by L. Baldwin. First photographed 2006. Treated 9/23/09. Appeared to still be present 2/10.</i>	image

### **Oregon State University**

_dniG	Nonnative.shp <i>Non-native Phragmites in Washington State</i>	shapefile do not include; see derivative file G19
_dniG	Native.shp <i>native Phragmites in Washington State</i>	shapefile do not include
_dniG	StatePhragmites.shp <i>combined data for G11 and G13- Phragmites in WA State, native and non-native</i>	shapefile do not include

### **University of Washington Herbarium, Burke Museum**

D003	Giblin-phragmites.doc <i>UW Herbarium records of phragmites presence, 1892-2005.</i>	herbarium record txt file with location descriptions; map individual sightings later if needed
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### **WA Department of Agriculture**

G019	G019.shp <i>Shapefile of non-native phragmites in Washington, compiled by G. Haubrich (WSDA Phragmites Survey Results)</i>	shapefile clipped to PSB
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### **WA Department of Ecology**

_dniD	D8_DOE_wria 1-19 rpt_KAS.xls <i>J. Parsons limited survey data on phragmites.</i>	spreadsheet - xls follow up with J. Parsons about more detailed data
_dniG	G0_wria_rpt.shp <i>Limited data on phragmites; Dept of Ag and Counties should have phragmites data</i>	shapefile follow up with JP about more detailed data
_dniR	FPE-G0300203.doc <i>Report on documentation and mapping of phrag, with summary of known treatment regimes.</i>	report Move to references or programs
G039	G039.shp (from D8_DOE_write 1-19 rpt_KAS.xls, G0_wri <i>Shapefile of phragmites data collected by J. Parsons of Ecology in surveys.</i>	shapefile lat/long mapped; phragmites extracted

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
XG	no file  <i>J. Parsons may be able to share more detailed data on phragmites where observed and noted in G39.</i>	shapefile?  follow up with email to get shapefiles if needed
<b>WA Department of Fish &amp; Wildlife</b>		
XG	-  <i>The Nature Conservancy or D. Heimer may be able to share data on phragmites in Port Susan.</i>	shapefile?  Determine whether to follow up, see G19
<b>WA Department of Transportation</b>		
_dniD	Knapweed_phragmites.xlsx  <i>Data file describes phragmites observed in WSDOT right-of-way at the Duwamish /1st Ave bridge and on SR 599, noting side of road and mileposts. Points represent reoccurring infestations (2-3 years).</i>	spreadsheet - xls  mapped to G077b
_dniX0	none  <i>Listing of target plants in spray zone, each zone may include multiple species. ~ 1,000 records annually in Puget Sound with beginning and ending mileposts.</i>	Filemaker spray records  Did not receive
G077b	G077b.shp (Knapweed_phragmites.xlsx)  <i>Data file describes phragmites observed in WSDOT right-of-way at the Duwamish /1st Ave bridge and on SR 599, noting side of road and mileposts. Points represent reoccurring infestations (2-3 years).</i>	shapefile  mapped from D011b.c
<b>WA State Parks &amp; Recreation Commission</b>		
_dniD	Fort Casey - list of plants in park - 2003.xls  <i>Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>	spreadsheet - xls  mapped to G066
D017	Fort Casey - list of plants in park - 2003.xls  <i>Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>	spreadsheet - xls  created shapefile (G066)
G066	Whidbey.shp, etc.  <i>Data collected by Kathryn Beck and Joseph Arnett for WSPRC. Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>	shapefile  mapped from D017
G073c	G073.shp  <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed</i>	spreadsheet - xls  COMPLETE TO DATE
<b>Washington Sea Grant</b>		
I004	IMG_7155.jpg, P9080012.jpg  <i>Photograph of "phragmites island" right off University of Washington in Lake Washington, located at 47° 39' 11.74N 122° 17' 47.34W.</i>	image  DON'T MAP

**variable leaf milfoil****Noxious Weed Control Board, Pierce County**

R013	Milfoil Grant Report - Oct 30.doc <i>Semi-annual grant report on management and current status of variable leaf milfoil in Blue, Clear (Thurston Co.), and Josephine Lakes.</i>	grant report see G002b, G038
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**Noxious Weed Control Board, Thurston County**

G002b	G002b (june2010.shp) <i>Shapefile of variable leaf milfoil locations in Clear Lake, Thurston County. Shapefile does not show Blue Lake, but R. Johnson says it is solidly infested.</i>	shapefile map - add polygon for Blue Lake ("solidly infested")
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**Skaqit County Public Works**

_dniR	- <i>vlni not documented in any of these reports</i>	- do not include; vlni not reported in any lakes
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**University of Washington Herbarium, Burke Museum**

_dniD	Giblin-milfoil.doc <i>records of presence, 2006 (J Parsons)</i>	herbarium records Screen for spatial extent within PS region
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**US Geological Survey**

_dniU	<a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>	database do not include; no new data identified in this database
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**WA Department of Ecology**

_dniD	D8_DOE_wria 1-19 rpt_KAS.xls <i>Point data for most of the lakes with milfoil (depends on cooperation with others doing work). She has more detailed database to share.</i>	spreadsheet - xls follow up to get more data if needed
_dniG	G0_wria_rpt.shp <i>Point data for most of the lakes with milfoil (depends on cooperation with others doing work). She has more detailed database to share.</i>	shapefile follow up with JP about more detailed data
G038	G038.shp <i>Shapefile showing most lakes in Puget Sound with variable leaf milfoil, as collected by J. Parsons in cooperation with others working on eradication in these lakes.</i>	shapefile lat/long mapped; variable leaf milfoil extracted
O004	O4_Florence Sep 09.jpg <i>Image of variable leaf milfoil presence within Florence Lake, based on J. Parsons GIS files.</i>	image
R018	G0900241 Variable leaf milfoil eradication.doc <i>Grant agreement between Ecology and Pierce County Noxious Weed Board for eradication and management of variable-leaf milfoil in Blue, Clear, and Florence lakes.</i>	report see G002b, G038

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
XG	no file <i>J. Parsons may have more detailed data on variable leaf milfoil presence within lakes, similar to the file shown in O4.</i>	shapefile? follow up with email to get shapefiles if needed



## REPORT 1C: Marine Data Files - ALL REVIEWED

D = spreadsheets or databases  
G = spatial data files  
I = images

O = other (anecdotal reports)  
P/R = published and unpublished reports

X = file not yet received  
\_dni = do not include

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>caulerpa</b>		
<b>Nahkeeta Northwest</b>		
_dniU	- See <a href="http://vmp.bioe.orst.edu/default.aspx">http://vmp.bioe.orst.edu/default.aspx</a>	none do not include; report under programs only, as they have not shared data (and don't expect they have any for caul)

**spartina****Nahkeeta Northwest**

_dniU	-	none
	<i>Any results from volunteer monitoring program, described at <a href="http://vmp.bioe.orst.edu/default.aspx">http://vmp.bioe.orst.edu/default.aspx</a></i>	do not include; only under programs, as they have not shared data

**Noxious Weed Control Board, Island County**

X010	no file	unknown
	<i>S. Horton may be able to provide data on Spartina in Island County.</i>	follow up to contact

**Noxious Weed Control Board, Jefferson County**

O007	N/A	anecdotal report
	<i>Anecdotal communications that Spartina has been observed in Discovery Bay (C. Lucero) and at the mouth of the Dosewallips River (E. Dixon), both in Jefferson County.</i>	DON'T MAP- ALREADY HAVE SPARTINA DATA

**Noxious Weed Control Board, King County**

O001	none	anecdotal report
	<i>Anecdotal communication that Spartina was observed on Vashon Island several years ago.</i>	do not include? Do not have more specific data.

**Noxious Weed Control Board, San Juan County**

D010b	Spt_survey_2008 copy.jpg	image - aerial extent
	<i>Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.</i>	check map point alignment with G068
D010c	Spt_survey_Wescott_marsh_2008.jpg	images
	<i>Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.</i>	check map point alignment with G068
G068	G068.shp	shapefile
	<i>Spartina found on San Juan, Lopez, Orcas, and Decatur Islands.</i>	map points in images D010b,c? shapefile created from data included in emails D009-D009c; 2007 data? CHECK FOR CONSISTENCY WITH MAP IMAGE- FOLLOW UP WITH SJC FOR BETTER IMAGE (GAD, LBP)- BE SURE TO NOTE SPARTINA V. KNAPWEED

**Noxious Weed Control Board, Skagit County**

X011	no file	spreadsheet - xls
	<i>B. Rogers may be able to share GPS points of Spartina in Skagit Bay/Fir Island.</i>	cross-check w/ other Spartina files before follow-up?

**Noxious Weed Control Board, Snohomish County**

XG	no file	spreadsheet - xls?
	<i>S. Gohrman may be able to share analysis of Spartina data since 1996 to show reductions and status in Snohomish County, work done in partnership with two other counties and WDFW.</i>	cross-check with R21 and S. MacDougall data before follow-up

**Oregon State University**

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
_dniG	PugetSoundSpartina_2008all.shp <i>Spartina population status as of 2008 - categories: monitored/eradicated, 1 acre or less, 1 to 5 acres, 6-50 acres, &gt; 50 acres</i>	shapefile do not include; see derivative file G18
_dniG	GHSpartina2008.shp <i>Spartina locations in Grays Harbor</i>	shapefile do not include; not in Puget Sound
_dniG	2008WillapaTreatments_2ndLap.shp <i>Spartina treatment locations in Willapa Bay</i>	shapefile do not include; not in Puget Sound
_dniG	WillapaTreatments2008.shp <i>Spartina treatment locations in Willapa Bay</i>	shapefile do not include; not in Puget Sound
D020	Spartina Spray Records.xls (1997-2008; no 2001) <i>Records describing where spraying for spartina conducted (mostly or just in Snohomish County) and with what partners.</i>	spreadsheet - xls DON'T MAP- ALREADY HAVE SPARTINA DATA

### **People for Puget Sound**

G048	G048.shp (Survey_Coverage.shp) <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.</i>	shapefile
G049	G049.shp (XYIsland.shp) <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.</i>	shapefile
G050	G050.shp (Survey_Coverage.shp) <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.</i>	shapefile
G051	G051.shp (XYSanJuan.shp) <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.</i>	shapefile
G052	G052.shp (Survey_coverage.shp) <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.</i>	shapefile
G053	G053.shp (XYSkagit.shp) <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.</i>	shapefile
G054	G054.shp (survey_coverage.shp) <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.</i>	shapefile

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
G055	G055.shp (XYWhatcom.shp) <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.</i>	shapefile
G056	G056.shp (2008Survey_coverage.shp) <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and Whatcom Counties in 2008.</i>	shapefile
G057	G057.shp (2008_Spartina_data.shp) <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and Whatcom Counties in 2008.</i>	shapefile
G058	G058.shp (2007_survey_coverage.shp) <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.</i>	shapefile
G059	G059.shp (2007_Spartina_data.shp) <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.</i>	shapefile

### **Stillaguamish Tribe of Indians**

_dni	no file <i>Doing eradication with Snohomish and Skagit County Weed Boards and WDFW. They are better sources of this data.</i>	N/A do not include; see regional spar data
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### **Swinomish Tribe**

G047a	G047a.shp (Spartina.shp) <i>Polygon of S. anglica distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.</i>	shapefile include
G047b	G047b.shp (Spartina_Isolated.shp) <i>Point file of S. anglica distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.</i>	shapefile include

### **University of Washington Herbarium, Burke Museum**

D004	Giblin-spartina.doc <i>UW Herbarium records of Spartina presence, 1902-2005.</i>	herbarium records txt file with location descriptions; map individual sightings later if needed
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### **US Geological Survey**

_dniU	<a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a> <i>Information on Spartina in Washington, beginning in 1990, as compiled by the USGS in a national database which tracks freshwater species.</i>	database Do not include; no new data in this database
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### **WA Department of Agriculture**

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
G018	G018.shp <i>Shape file showing Spartina population status Sound-wide as of 2008. Categories shown are monitored/eradicated, 1 acre or less, 1 to 5 acres, 6-50 acres, &gt; 50 acres.</i>	shapefile complete
G060	G060.shp (SpartinaPS2009Sites.shp) <i>Data from statewide Spartina surveys and treatment in 2009.</i>	shapefile
P002	WSDASpartinaReport2007.pdf, hard copies of 2008 & 2009 <i>Annual reports to the Legislature on Spartina control with information on acreage, distribution, eradication efforts, partners, etc. Recieved DRAFT of 2008, 2009 reports from C. Phillips, not for distribution.</i>	annual report no action

### **WA Department of Fish & Wildlife**

XG	no file <i>D. Heimer may be able to share some historic GIS info on where did control for Spartina.</i>	shapefile? LBP to follow up
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### **WA State Parks & Recreation Commission**

G065	Dosewallips.shp, etc. <i>Collected by Pacific Biodiversity Institute for WSPRC. Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.</i>	shapefile complete
G073b	G073.shp <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed</i>	spreadsheet - xls COMPLETE TO DATE
P009	Deception Pass SP - Vegetation Survey Report.pdf <i>Description of Spartina around Cornet Bay in Deception Pass State Park as observed in vegetation surveys in 2008-2009. The Spartina was mapped and a treatment plan described.</i>	report data mapped in G062
P010	Dosewallips - veg assoc and rare plant report.doc <i>Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.</i>	report See G065 for associated shapefile.

### **Washington Sea Grant**

I003	P5220019.jpg, P5220020.jpg <i>Photograph of Spartina observed on the way to Camano Island.</i>	image DON'T MAP- ALREADY HAVE SPARTINA DATA
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## tunicates

**Nahkeeta Northwest**

_dniU	-	none
	See <a href="http://vmp.bioe.orst.edu/default.aspx">http://vmp.bioe.orst.edu/default.aspx</a>	do not include; use under programs only, as they have not shared data

**REEF Environmental Education Foundation**

_dniD	tunicates122109.txt	online report
	<i>All tunicate sightings in REEF's Washington database (176 records). Sightings from a given survey share a form number. Both novice and expert data are included.</i>	mapped to G076a; some points missing XY coordinates
_dniD	PNW_geog.txt	online report
	<i>List of the geographic code, location name, lat and long (in Deg Min.min/100) for all Washington sites in the REEF database. Surveys without a specific site given have geographic codes ending in 00.</i>	used to map G076a,b
_dniD	WA_surveys.txt	online report
	<i>All Type 2 and Type 3 REEF surveys conducted since 4/1/2006 in WA in REEF's database (REEF surveys have been conducted since 1998, tunicates were added in 2006). See ReadMe file.</i>	mapped to G076b; some points missing XY coordinates
_dniU	<a href="http://www.reef.org/db/reports/dist/species/PAC/196/1996">http://www.reef.org/db/reports/dist/species/PAC/196/1996</a>	online report
	<i>Ciona savignyi reports- sightings in region 1996-current; listed by location and number of sightings</i>	do not include; same spatial info as D21a-c
_dniU	<a href="http://www.reef.org/db/reports/dist/species/PAC/195/1996">http://www.reef.org/db/reports/dist/species/PAC/195/1996</a>	online report
	<i>Didemnum reports- sightings in region 1996-current; listed by location and number of sightings</i>	do not include; same spatial info as D21a-c
_dniU	<a href="http://www.reef.org/db/reports/dist/species/PAC/194/1996">http://www.reef.org/db/reports/dist/species/PAC/194/1996</a>	report
	<i>Styela clava reports- sightings in region 1996-current; listed by location and number of sightings</i>	do not include; same spatial info as D21a-c
G076a	G076a	online report
	<i>All tunicate sightings in REEF's Washington database (176 records). Sightings from a given survey share a form number. Both novice and expert data are included.</i>	mapped from D021a,b; some points missing XY coordinates
G076b	G076b.shp	online report
	<i>All Type 2 and Type 3 REEF surveys conducted since 4/1/2006 in WA in REEF's database (REEF surveys have been conducted since 1998, tunicates were added in 2006). See ReadMe file.</i>	mapped from D021c,b; some points missing XY coordinates
I007	<a href="http://nwgeogirl.smugmug.com/Invasive-Tunicates">http://nwgeogirl.smugmug.com/Invasive-Tunicates</a>	image
	<i>Photographs of the three invasive tunicates.</i>	
O012	REEFGBPS2009.pdf	poster
	<i>Poster on REEF's survey and education efforts, showing data collected to date, presented at Puget Sound Georgia Basin conference.</i>	

**Skokomish Tribe**

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
_dniD	Ciona running data.xls <i>Data used in report on C. savignyi in Appendix 3 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>	spreadsheet also mapped as G067
G067	Point_ge.shp, etc.	shapefile LBP FOLLOW UP FOR NEW FILE OR PROJECTION DEFINITION; DESCRIPTION OF ALIGNMENT WITH D031
R014	Pleasant Harbor Report.doc <i>Report on S. clava removal in Blaine, Pleasant Harbor, and Neah Bay.</i>	progress report Erin Grey's work already shows S. clava still present 2005-2009 after removal efforts. Do we need to follow up for other data?
R023	Ciona report.doc <i>Report on C. savignyi, same as Appendix 3 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>	project report received data but projection issue (G067, D031)

### **Tulane University**

_dniD	StyelaClava Data.xls <i>Data on Styela clava abundance and recruitment at Pleasant Harbor Marina (abundance data for 2005, 2007-8 forthcoming). E. Grey notes that WDFW attempted removal at this marina in 2006 or 2007.</i>	abundance and recruitment data mapped to G071 - sites surveyed
G071	G071.shp <i>Data on Styela clava abundance and recruitment at Pleasant Harbor Marina (abundance data for 2005, 2007-8 forthcoming). E. Grey notes that WDFW attempted removal at this marina in 2006 or 2007.</i>	abundance and recruitment data created shapefile from D014, P003
P003	Grey 2008.pdf <i>Peer-reviewed paper describing surveys of marine docks for invasive tunicates. Did not observe Didemnum or C. savignyi, found S. clava at one site. See <a href="http://home.uchicago.edu/~egrey/index.html">http://home.uchicago.edu/~egrey/index.html</a></i>	peer-reviewed lit on survey mapped - see G071

### **University of Washington - Friday Harbor Labs**

D024	Washington State invasive tunicates Gretchen Lambert J <i>Tunicate survey data from Lambert &amp; Lambert shown in Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates, plus other diver data collected since 2006.</i>	spreadsheet MAP- REQUEST FILE REVISION FROM g.L. (GAD DRAFT TEMPLATE); CHECK FOR ALIGNMENT WITH ERIN GREY MARINA COORD, PLACE NAMES SHAPEFILE, DOE SHORELINE MANAGEMENT PROJECT (MARINA NAMES?)
R024	Washington State invasive tunicate survey for WDFW.doc <i>Report summarizing survey data included in D24, similar to Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>	report see D024 about mapping marinas

### **US Geological Survey**

_dniU	<a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a> <i>Information on tunicates in Washington, beginning in 1998, as compiled by the USGS in a national database which tracks freshwater species.</i>	database Do not include; no new data in this database.
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### **WA Department of Fish & Wildlife**

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
G084	2005_2007WDFWTahuyaSurveys  <i>The layer WDFWTahuyaSurvey2005 contains records showing the positions of all of the transects that were completed during the October, 2005 survey of the Tahuya geoduck tract. In the field C_Sav_P_A, P indicates that Ciona savignyi was present on the transect.</i>	geodatabase
R011	WDFW2009.pdf  <i>Biennial report which describes 100 sites surveyed for tunicates, with 31 sites containing one of the three invasive species, and count data at specific sites. Have requested data from WDFW.</i>	biennial report to legislature  Have requested underlying data from WDFW.
R015	PSAT2007.pdf  <i>Report from the Puget Sound Action Team summarizing the state's response to non-native tunicates. Includes several data sets (R23, R24, D24).</i>	report  see R023, R024, D024
R025	hoodcanal_hb1896.pdf  <i>This report describes tunicates observed during surveys to document geoduck populations. Divers noted high abundance of tunicates in the Tahuya River delta in 2005. No tunicates were observed in subsequent surveys in 2007 or previously in 1996.</i>	report  have requested data and expect it to be forthcoming.
<b>WA Department of Natural Resources</b>		
R012	CohenetalRapidAssessment1998.pdf  <i>Surveys conducted of harbors, marinas, and natural areas in 1998, for invasive species including tunicates. Appendix 6 (page 33) summarizes findings with respect to tunicates.</i>	report  see D024 about mapping marinas

**VHS type IVa (Viral Hemorrhagic Septicemia Virus IVa genotype)****Northwest Indian Fisheries Commission**

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G078	VHSV detections in database.pdf, VHSV detections by wa <i>Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).</i>	shapefile DETECTIONS (Iva) AT HATCHERIES MAPPED; LBP FOLLOW UP RE. OTHER AGENCY MONITORING LOCATIONS (Ivb??), also LBP to follow up on detections, locations and negatives data
R016	VHSV detections in database.pdf, VHSV detections by wa <i>Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).</i>	report from database MAPPED- SEE G078

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# REPORT 1C: Terrestrial Data Files - ALL REVIEWED

D = spreadsheets or databases  
 G = spatial data files  
 I = images

O = other (anecdotal reports)  
 P/R = published and unpublished reports

X = file not yet received  
 \_dni = do not include

Data	Filename / Description	Data Type/Notes
<b>gypsy moths</b>		
<b>WA Department of Agriculture</b>		
G041	G041.shp (AGMDetectionsArchiveWSDA.shp) <i>Shapefile showing all Asian gypsy moth detections recorded via WSDA survey efforts from 1972 - present day.</i>	shapefile complete
G042	G042.shp (GMDetects_07_09.shp) <i>Shapefile showing all European gypsy moth detections via WSDA survey efforts from 2007, 2008, and 2009.</i>	shapefile complete
G043	G043.shp (GypsyMoth_WSDA2007.shp) <i>Shapefile showing all WSDA trap placements statewide, 2007.</i>	shapefile complete
G044	G044.shp (GypsyMoth_WSDA2008.shp) <i>Shapefile showing all WSDA trap placements statewide, 2008.</i>	shapefile complete
G045	G045.shp (GypsyMoth_WSDA2009.shp) <i>Shapefile showing all WSDA trap placements statewide, 2009.</i>	shapefile complete
O010	none <i>Data files from WSDA surveys 1972-2006 are in paper forms, with addresses but no gps coordinates for the ~25,000 traps set annually. All detections are shown in G41 and G42.</i>	hardcopy trap records no action
P004a	GM Summary Report.pdf <i>WSDA's annual report on gypsy moth surveys. See also at <a href="http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports">http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports</a></i>	annual report no action
P004b	GM Survey.pdf <i>WSDA presentation on gypsy moth surveys.</i>	powerpoint describing program no action

**knapweeds****Mountains to Sound Greenway**

_dni	no data	N/A
	<i>Collect data and send to King County. See G5a.</i>	do not include; got data from D. Chambreau (G5a)

**National Forest. Mt. Baker-Snoqualmie**

G040	mbs_knapweed_2010_not_kittitas.shp	shapefile
	<i>Knapweed locations documented in Mt Baker-Snoqualmie NF from 1997-2008. Data were provided by many people to L. Martin, in many cases "with a scribble on a map or a verbal description."</i>	MAP- YES. LBP FOLLOW UP WITH PHONE CALL.

**National Park, Mount Rainier**

D030	Spotted Knapweed Locations.xls	Observations with mile marker locations
	<i>Data on mile markers where spotted knapweed found &amp; controlled. Locations primarily verbally documented, and are mostly on East side of park (not in PS).</i>	GAD LOOK FOR HWY FILE WITH MILEPOINTS- THEN ROUGH GUESS OF POINTS IN PSB TO IDENTIFY # OF POINTS IN PSB

**National Park, Olympic**

D019	NPS_Knapweed.xls	lat/long and coverage
	<i>Description of one knap population in Olympic NP with estimated location and extent; has been present since before 2002 and may be treated in 2011.</i>	MAP- CREATE SINGLE POINT (LBP SEND EMAIL NOTES)

G083	G083	
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**Noxious Weed Control Board, Clallam County**

_dniG	ceja.shp	shapefile
	<i>Shapefile of meadow knapweed in Clallam County. Have lots of meadow knapweed. Hotspots are W. of Port Angeles, Olympic Hot Springs Road, behind Sequim in Burnt Hill (old sheep raising), along hwy.</i>	mapped to G023
_dniG	spottedknapweed.shp	shapefile
	<i>Shapefile of spotted knapweed in Clallam County. Have limited spotted knapweed.</i>	mapped to G024
G023	G023.shp (from ceja.shp)	shapefile
	<i>Shapefile of meadow knapweed in Clallam County. Have lots of meadow knapweed. Hotspots are W. of Port Angeles, Olympic Hot Springs Road, behind Sequim in Burnt Hill (old sheep raising), along hwy.</i>	modified to show meadow knap only
G024	G024.shp (from spottedknapweed.shp)	shapefile
	<i>Shapefile of spotted knapweed in Clallam County. Have limited spotted knapweed.</i>	modified to show spotted knap only

**Noxious Weed Control Board, Island County**

X006	no files	N/A
	<i>S. Horton may be able to provide data on knapweed in Island County.</i>	follow up to contact

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
<b>Noxious Weed Control Board, Jefferson County</b>		
G029	G029.shp (from meadow knapweed.shp) <i>Shapefile of meadow knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Two large infestations on W. Valley Rd. outside Chimacum.</i>	shapefile complete
G031	G031.shp (from spotted knapweed.shp) <i>Shapefile of spotted knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Spotted knapweed is popping up along highways in J. County.</i>	shapefile complete
G033	G033.shp (from mis species_mod.shp) <i>Shapefile of big head knapweed in Jefferson County (a few sites). Populations noted by points, size not estimated. Federal lands not covered.</i>	shapefile complete
<b>Noxious Weed Control Board, King County</b>		
G027	G027.shp (from InvasiveCouncilWeeds_08_09.shp) <i>Shapefile of knapweed in King County, 2008-2009, with information on presence, area, cover class, and habitat type.</i>	shapefile 2008-2009 knapweed data extracted from King County
<b>Noxious Weed Control Board, Kitsap County</b>		
_dniD	2009.xls <i>Locations of noxious weeds in Kitsap County. Only one knapweed site noted, at Olalla Valley Rd in Port Orchard.</i>	spreadsheet - xls mapped as G072
_dniP0	Kitsap_2008_annual_report.pdf <i>Annual report. Note that very little knapweed has been detected in surveyed area.</i>	annual report no action
G072	G072.shp (from 2009.xls) <i>Locations of noxious weeds in Kitsap County. Only one knapweed site noted, at Olalla Valley Rd in Port Orchard.</i>	shapefile complete
XR026	no files <i>D. Coggon referenced Kitsap County Survey data 1996 on knapweed. Have not been able to locate.</i>	report Follow up with D. Coggon
<b>Noxious Weed Control Board, Lewis County</b>		
G034	G034.shp <i>Knapweed sightings along roadsides in Gifford Pinchot NF in the Lewis County portion of the Nisqually Watershed in 2005-2007. B. Wamsley expects data is just from uplands, not in stream corridor.</i>	shapefile complete
<b>Noxious Weed Control Board, Mason County</b>		
X005	no files <i>P. Grover may be able to provide data on knapweed in Mason County.</i>	N/A Follow up with Sean - other data set from Mason County?
<b>Noxious Weed Control Board, Pierce County</b>		

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
D016	Knapweed Data for Cascadia.xls  <i>Locations (addresses and some lat/long) where knapweed notices have been issued in Pierce County. They are updating database to incorporate habitat and trends/pathways in these observations.</i>	spreadsheet  Map YES? ~300 addresses, not sortable, would require mapping all points individually- CREATE SHAPEFILE OF PIERCE COUNTY PRESENCE- REVIEW FOR ANY POSSIBLE TREND DATA

### **Noxious Weed Control Board, San Juan County**

D010	Top Weeds per Island Map E_Size.pdf  <i>Pdf map of 2007 knapweed survey data on Lopez, Orcas, and San Juan Islands.</i>	map of coverage  check map points for alignment with G006b,c, G069 shapefiles
G069	G069.shp  <i>shapefile created from data included in emails D009</i>	shapefile  created shapefile from D009, check against D010, G006ab,c, G061

### **Noxious Weed Control Board, Skagit County**

D013	SkagitCoKnapweed.pdf  <i>Map from assessor's database showing one knapweed location in Skagit County (Sharp's corner in Anacortes, by Hart Lake, along Hwy 20). B. Rogers says others are on tribal, federal land.</i>	map of single population  MAP SINGLE POINT? SKAGIT, KNAP
G082	G082	

### **Noxious Weed Control Board, Thurston County**

_dniG	G001b.shp (invasivespeciescouncil_KNAP.shp)  <i>Thurston County knapweeds; see also <a href="http://www.co.thurston.wa.us/tcweeds/special-projects.htm">http://www.co.thurston.wa.us/tcweeds/special-projects.htm</a></i>	shapefile  Do not include; see derivative file G021
G021	G021.shp  <i>Shapefile of knapweed in Thurston County.</i>	shapefile  knapweed extracted and clipped to PSB

### **Noxious Weed Control Board, Whatcom County**

G070	G070.shp (from Whatcom knapweeds 2010.xls)  <i>Locations where ongoing monitoring is occurring of about 300 spotted knap, 200 meadow knap sites. L Baldwin says "some far-flung sites, e.g., Newhalem, not included."</i>	shapefile  created shapefile from D022 - Whatcom knapweeds 2010.xls
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### **Oregon State University**

_dniG	Meadow_knapweed 102005.shp  <i>meadow knapweed populations in 2005- need to figure out where it is located; shapefile projection undefined - looks like south sound somewhere</i>	shapefile  do not include; not in Puget Sound
G017	G017.shp (Spotted Knapweed selection 1999.shp)  <i>Shapefile of spotted knapweed in Lewis County.</i>	shapefile  complete

### **San Juan County Public Works**

_dniG	G006a (Noxious_weeds.shp)  <i>2007 knapweed data (cenmac, cenpra, censto)</i>	shapefile  map - check alignment with G061, G069
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<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
G006b	G006b (Weed_Lines08.shp) <i>Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.</i>	shapefile include; shows absence of knap on outer islands; check for relationship to D009 points, D010 image
G006c	G006c.shp (Weeds_Points_08.shp) <i>Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.</i>	shapefile include; shows absence of knap on outer islands; check for relationship to D009 points, D010 image
G028	G028.shp <i>Shapefile of knapweed on San Juan, Lopez, and Orcas Islands in 2007 from San Juan Public Works. Species codes are cenmac, cenpra, and censto.</i>	shapefile created shapefile from G006a
G061	G061.shp (Nox_weeds09.shp) <i>Shapefile of knapweed distribution on San Juan Islands.</i>	shapefile mapped

### **Swinomish Tribe**

G046a	G046a.shp (from knapweed.gdb) <i>Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase</i>	shapefile complete
G046b	G046b.shp (from knapweed.gdb) <i>Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase</i>	shapefile complete

### **University of Washington Herbarium, Burke Museum**

D002	Giblin-knapweed.doc <i>UW Herbarium records of knapweed presence, 1923-2007.</i>	herbarium records txt file with location descriptions; map individual sightings later if needed
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### **US Forest Service - Olympic National Forest**

_dniG	ONF_knapweeds.shp <i>Shapefile of knapweed in Olympic National Forest, from surveys conducted 1997-2003. Now in treatment phase.</i>	shapefile mapped to G022
G022	G022.shp (from ONF_knapweeds.shp) <i>Shapefile of knapweed in Olympic National Forest, from surveys conducted 1997-2003. Now in treatment phase.</i>	shapefile clipped to PSB

### **WA Department of Agriculture**

D027	Brown_knap_dmap2003.pdf <i>Map of brown knapweed (C. jacea) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>	distribution map MAP- LBP FOLLOW UP AND GET SHAPEFILES
D028	Black_knap_dmap2003 <i>Map of black knapweed (C. nigra) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>	distribution map MAP- LBP FOLLOW UP AND GET SHAPEFILES

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
D029	Diffuse_knap_dmap2003  <i>Map of diffuse knapweed (C. diffusa) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>	distribution map  MAP- LBP FOLLOW UP AND GET SHAPEFILES
XG	no files  <i>G. Haubrich collects data on knapweed across the state. See files D27-D29. BAP may have access to underlying shape files or more detailed data through S. MacDougall.</i>	shapefile?  check to see if we have complete data from Sean

### **WA Department of Fish & Wildlife**

X003	no files  <i>D. Heimer may be able to provide data on presence and rough acreage of knapweed in WDFW Wildlife Areas, from surveys managers fill out annually on knapweed controlled.</i>	spreadsheet?  LBP to follow up, cross-check Sean's data
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### **WA Department of Transportation**

_dniD	Knapweed_phragmites.xlsx  <i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts and maximize control efforts.</i>	spreadsheet - xls  mapped to G077a
_dniD	StateRouteLRS.shp  <i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts and maximize control efforts.</i>	shapefile  used to map G077a,b
_dniX0	no files  <i>Data on target plants in spray zone, each zone may include multiple species. ~ 1,000 records annually in Puget Sound with begin. and end. mileposts. Data not shared.</i>	Filemaker spray records  Do not include; data not shared
G077a	G077a.shp (Knapweed_phragmites.xlsx)  <i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts and maximize control efforts.</i>	shapefile  mapped from D011a,b

### **WA State Parks & Recreation Commission**

G063	FederationForest.shp, etc.  <i>Data collected by Pacific Biodiversity Institute for WSPRC. Knapweed noted as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.</i>	shapefile  complete
G064	NisquallyMashel.shp, etc.  <i>Data collected by LYRA Biological for WSPRC. Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel State Park in 2006.</i>	shapefile  complete

<i>Data</i>	<i>Filename / Description</i>	<i>Data Type/Notes</i>
G073a	G072.shp <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Knapweed found in 4 of 56 parks surveyed</i>	spreadsheet - xls COMPLETE TO DATE
P005	Birch Bay SP Vegetation Survey.pdf <i>Report describing mapped observations of knapweed in Birch Bay State Park during vegetation surveys in 2008.</i>	report MAPPED - Received underlying data from R. Fimbel
P006	Federation Forest - veg assoc and rare plant report - 200 <i>Report noting knapweed as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.</i>	report complete
P007	Final Lake Isabella SP.pdf <i>Report describing knapweed as located along the northern pastures of Lake Isabella State Park during vegetation surveys in 2009.</i>	report complete
P008	Final Nisqually.pdf <i>Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel State Park in 2006.</i>	report complete

*Data*   *Filename / Description*

*Data Type/Notes*

**kudzu**

**WA Department of Agriculture**

_dni	no file	N/A
	<i>Observation and management of kudzu in Clark County</i>	do not include: not in Puget Sound basin

**wood-boring beetles****Friends of the Cedar River Watershed**

_dni	no files	N/A
	<i>They recruit volunteers to assist partner Seattle Public Utilities (SPU) in collecting data on native Douglas-fir beetles.</i>	do not include; does not have data

**Seattle Public Utilities**

_dni	no files	N/A
	<i>Tracking native Douglas-fir beetles (family Curculionidae)</i>	do not include; only tracking native beetles

**WA Department of Agriculture**

G080		shapefiles
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G080a	G080a_EmeraldAshBorer2009	shapefile
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G080b	G080b_EWBIS_2009Survey	shapefile
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G080c	G080c_WAExoticPinePest200	shapefile
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X015	no files	report
	<i>J. Cena may be able to share data on trap placement and specifics on wood-boring insects that WSDA traps for.</i>	follow up

**WA Department of Natural Resources**

X016	none	60 pages hardcopy survey results
	<i>Data from K. Ripley as follow up on E. LaGasa's surveys in Olympia and Tacoma Ports. Found Xyleborinus alni (family Scolytidae) in ports and neighboring forests.</i>	review Mudge et al 2001 and follow up as necessary.

## REPORT 4: Programs by Organization

### 100th Meridian Initiative

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#### 100th Meridian Initiative

species: zemu spatial extent: national

Works to prevent the spread of zebra mussels and other aquatic nuisance species in the 100th meridian jurisdictions and west and to monitor and control zebra mussels and other aquatic nuisance species

### Bellingham Parks & Recreation Department

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#### Bellingham Parks & Recreation Department

species: knap spatial extent: City, Bellingham

Efforts to prevent and detect knapweed introduction and control and monitor any populations on City property.

### Cascade Land Conservancy

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#### Cascade Land Conservancy

species: multiple spatial extent: Regional

Work with volunteers to conduct invasive plant removal in the course of site restoration.

### Conservation District, Clallam County

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#### Clallam County CD

species: knap spatial extent: County, Clallam

Invite Clallam County NWCB rep. to speak on noxious weeds, including knap, at workshops for horse and livestock owners. Distribute flyers on noxious weeds at events.

species: phrag spatial extent: County, Clallam

Look for phragmites while performing site visits on farms throughout Clallam County.

species: spar spatial extent: County, Clallam

Provide flyers on spartina at various events to educate Clallam County citizens

### Conservation District, Jefferson County

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#### Lake Leland Integrated Aquatic Management Plan

species: brel spatial extent: County, Jefferson

Specific recommendations for management of Brazilian elodea in the lake

### Conservation District; Pierce County

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#### Ohop Lake Improvement Club

species: brel spatial extent: County, Pierce (Ohop Lake)

Developed an Integrated Aquatic Vegetation Mangement Plan in 2005-2006 to control Brazilian elodea and other invasives; have since been implementing that plan and were still controlling Brazilian elodea as of spring 2010.

## King County Lakes Stewardship

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### Pipe and Lucerne Lake Hydrilla Eradication

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species: hyd spatial extent: County, King

Eradication of Hydrilla in two interconnected lakes in King County was completed in 2006, monitoring is ongoing. Note: Lakes program does submergent plants. See KC1.

## Metro Parks Tacoma

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### Alien Invaders Exhibit in North Pacific Aquarium

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species: zemu; tun; spar spatial extent: City, Tacoma

Exhibit on invasive species

## Mountains to Sound Greenway Trust

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### Mountains to Sound Greenway Trust

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species: knap spatial extent: WRIA 7 (near Mountains to Sound Greenway)

Survey for noxious weeds (including knapweed) and control populations found. Focus on Middle and South Fork Snoqualmie Basins. King County NWCB compiles survey data.

## Nahkeeta Northwest

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### Puget Sound Marine Invasive Species Volunteer Monitoring Program

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species: caul; spar; tun spatial extent: Puget Sound Basin

This program trained volunteers at > 200 sites in PS to conduct shoreline sampling to detect new species and document distribution of known invaders. Used a web data entry portal w/mapping capability.

## National Oceanic and Atmospheric Administration

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### Manchester Research Station

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species: vhs spatial extent: Washington State

Research impacts of VHS virus

## National Park, Mount Rainier

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### Ecological Restoration

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species: knap spatial extent: National Park, Mount Rainier

Treat knapweed (chemically, manually), note mileposts where observed/treated. Hold volunteer work parties to remove invasives.

## National Park, North Cascades

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### Exotic Plant Management Team

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species: knap spatial extent: National Park, North Cascades

Early detection and rapid response to knapweed species along the North Cascades Scenic Highway with focus of preventing spread into adjoining park lands. Conduct overall invasive species control in association with restoration.

## National Park, Olympic

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### Exotic Plant Management Team

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**species:** knap **spatial extent:** National Park, Olympic

Have observed since before 2002 and plan to treat (maybe in 2011) a single knapweed population along Lake Crescent.

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## Northwest Indian Fisheries Commission

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### Conservation Planning

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**species:** brel; hyd **spatial extent:** Puget Sound Basin

Provide services to member tribes to support their natural resource management efforts.

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**species:** nutr **spatial extent:** Puget Sound Basin

Provide services to member tribes to support their natural resource management efforts.

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**species:** zemu; tun **spatial extent:** Puget Sound Basin

Provide services to member tribes to support their natural resource management efforts.

### Fish Health Program

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**species:** vhs **spatial extent:** Washington State

Screen salmon at tribal hatcheries for regulated viral pathogens including VHS. Coordinate data from other agencies which test for this virus. Provide education and disease response services.

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## Noxious Weed Control Board, Clallam County

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### Clallam County NWCB

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**species:** knap **spatial extent:** County, Clallam

Do control with WSDOT

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## Noxious Weed Control Board, Island County

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### Island County Noxious Weed Program

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**species:** tun **spatial extent:** County, Island

Conduct education and outreach regarding tunicate species.

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**species:** phrag **spatial extent:** County, Island

Conduct public education and detection efforts for phragmites.

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**species:** kudz; vlmi; hyd **spatial extent:** County, Island

Conduct public education and otherwise work to prevent and detect the introduction of these species to Island County.

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**species:** knap **spatial extent:** County, Island

Promote knapweed control through public education and contact with landowners, assist with control efforts as appropriate.

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species: brel spatial extent: County, Island

Control of Brazilian elodea in Lone Lake has been funded by Ecology grants; these funds initially went towards development of an Integrated Aquatic Vegetation Management Plan.

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species: spar spatial extent: County, Island

Major component of the County's noxious weed control. Began treating Spartina in 1997 when there were 250 solid acres of spartina in the County; that number has since been significantly reduced.

## Noxious Weed Control Board, Jefferson County

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### Jefferson County Noxious Weed Control

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species: knap; phrag spatial extent: County, Jefferson

Work with Jefferson County & private landowners to coordinate control of knapweed infestations. Monitor a phragmites pop'n on a state highway and ask WSDOT to control. Also coordinate with Clallam County, USFS.

## Noxious Weed Control Board, King County

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### Green-Duwamish Watershed Cooperative Weed Management Area

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species: phrag spatial extent: County, King

Focus on riparian rhizomatous weeds, to include phragmites. Treating phragmites in the lower Duwamish.

### King County Noxious Weed Control

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species: brel spatial extent: County, King

Monitor known populations, provide technical control assistance, run volunteer program to survey uninfested lakes. Failed to eradicate from Lake Dolloff. Do county-wide surveys, online education and reporting.

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species: knap; phrag spatial extent: County, King

Educate landowners regarding their control responsibilities, provide technical assistance and monitor sites for at least three years following eradication. Do county-wide surveys, online education and reporting.

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species: kudz; vimi; hyd spatial extent: County, King

Weed specialists do county-wide surveys; website has education & detection information & an online tool for the public to report weed sightings (KC follows up). Have received false reports of kudzu.

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species: spar spatial extent: County, King

Monitor the few known historical locations of spartina in King County to detect any new plants. Do county-wide surveys, online education and reporting.

### Mid-fork Snoqualmie Cooperative Weed Management Area

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species: knap spatial extent: County, King

Control knapweed in the upper watershed.

## Noxious Weed Control Board, Kitsap County

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### Kitsap Weed Control Board

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species: brel spatial extent: County, Kitsap

Manage Brazilian elodea in Kitsap Lake and Long Lake. Also see <http://www.longlakecill.org/index.html>



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**species:** vlni **spatial extent:** County, Pierce; County, Thurston

Eradication and management of variable-leaf milfoil in Blue, Clear (Thurston County), and Josephine Lakes. Will also be working in Pierce County Clear Lake.

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**species:** knap **spatial extent:** County, Pierce

Seasonal field inspectors visit problem sites and systemically cover their designated areas, issuing notices to landowners as needed. A few citizens call to report knapweed infestations.

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## Noxious Weed Control Board, San Juan County

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### San Juan County Noxious Weed Control Board

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**species:** brel; phrag **spatial extent:** County, San Juan

Survey for but have not found these species

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**species:** knap; spar **spatial extent:** County, San Juan

Conduct knapweed surveys and control with County Public Works on islands where Public Works owns infrastructure, contact landowners when these species are observed on private property. Work with WSDA to conduct spartina surveys and control.

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## Noxious Weed Control Board, Skagit County

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### Skagit County Noxious Weed Control Board

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**species:** knap **spatial extent:** County, Skagit

Help the state and local landowners with limited control and detection efforts. Most knap populations in Skagit County appear to be under tribal or federal jurisdiction.

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**species:** spar **spatial extent:** County, Skagit

Help the state and local landowners to protect and preserve the land and resources from spartina impacts.

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## Noxious Weed Control Board, Snohomish County

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### Snohomish County Noxious Weed Control Board

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**species:** knap **spatial extent:** County, Snohomish

Help local landowners to eradicate or control priority noxious weeds, pursue funding for control efforts, survey for new invasive species, conduct education. Knapweed is lower priority for control.

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**species:** kudz **spatial extent:** County, Snohomish

Educate landowners and otherwise prepare to detect any invasive kudzu.

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**species:** spar **spatial extent:** County, Snohomish

Help local landowners and regional partners to eradicate spartina, conduct surveys and monitoring. Spartina is high priority for control; funded (in part) by contracts with WSDA.

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**species:** phrag **spatial extent:** County, Snohomish

Help local landowners to control phragmites, pursue funding for control efforts, survey for new invasive species, conduct education. Phragmites is lower priority for control (not class A).

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## Noxious Weed Control Board, Thurston County

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### Thurston County Noxious Weeds program

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**species:** vlni **spatial extent:** County, Thurston

Work with Pierce County to control variable leaf milfoil in Blue and Clear Lakes.

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**species:** spar **spatial extent:** County, Thurston

Survey for spartina but none detected at this time.

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**species:** phrag **spatial extent:** County, Thurston

Work to eradicate known sites with phragmites.

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**species:** knap **spatial extent:** County, Thurston

Monitoring, control, and eradication is ongoing annually for the three knapweed species present in the County.

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**species:** hyd **spatial extent:** County, Thurston

Efforts to prevent invasion of hydrilla in Thurston County lakes.

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## **Noxious Weed Control Board, Washington State**

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### **Washington State Noxious Weed Control Board**

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**species:** kudz; vlni; brel; hyd; knap; spar **spatial extent:** Washington State

Advises WSDA on noxious weed control, coordinates and supports the activities of county noxious weed control boards and weed districts, implements Chapter 17.10 RCW (noxious weed list).

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## **Noxious Weed Control Board, Whatcom County**

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### **Whatcom County Noxious Weed program**

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**species:** brel **spatial extent:** County, Whatcom

Ed/out includes Strange Waterweeds are Making Problems campaign 2002-2004 funded by Ecology. Brazilian elodea was discovered in a waterbody during grant period w/ aid of educational display.

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**species:** hyd **spatial extent:** County, Whatcom

Ed/out includes Strange Waterweeds are Making Problems campaign 2002-2004 funded by Ecology.

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**species:** knap **spatial extent:** County, Whatcom

Monitor spotted and meadow knapweed; offer landowners control solutions for knapweed.

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**species:** phrag **spatial extent:** County, Whatcom

Treated single patch of phragmites known with a 2% solution of glyphosate with Agri-Dex surfactant. There is an NPDES permit on file with Ecology and WSDA for this application.

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**species:** vlni **spatial extent:** County, Whatcom

Conduct education and outreach regarding variable-leaf milfoil.

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species: spar spatial extent: Whatcom County

Coordinate with WSDA, People for Puget Sound, on these efforts.

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## Oregon State University

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### Washington WeedMapper development

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species: kudz; knap; phrag spatial extent: Washington State

Developing tool, similar to that used in Oregon.

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## Pacific Marine States Fisheries Commission

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### Pacific Ballast Water Group

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species: caul; tun; zemu spatial extent: Pacific Coast

Coordinates information-sharing and formulation of consensus solutions on ballast water management and research issues of common concern to regulators, managers, scientists and the shipping industry

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## People for Puget Sound

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### Community Spartina Education and Stewardship Program

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species: spar spatial extent: Puget Sound Basin

2000-2006: ed/out, annual Spartina Dig Days. 2007-2009: ed/out, recruit & train volunteer kayakers to survey priority shorelines. Since 2007, have surveyed 198 miles and id'd 444 sq. m. of spar.

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## Portland State University

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### Center for Lakes and Reservoirs

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species: nutr spatial extent: Washington State

Report describing current management, developing framework for regional management. See Sheffels1

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## Puget Sound Action Team

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### Exotic Species Detection Program for Puget Sound

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species: zemu spatial extent: Puget Sound Basin

This program described in Cohen2, not clear if ever implemented

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## Puget Sound Partnership

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### Puget Sound Partnership

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species: spar; tun; nutr spatial extent: Puget Sound Basin

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## Reef Environmental Education Foundation

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### Volunteer diver program

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species: tun spatial extent: Puget Sound Basin

Divers who spot invasive tun submit data to www.reef.org. Offer a basic invertebrate ID class, educated over 400 divers on how to ID these species. Created a laminated ID card w/ SeaGrant, WDFW.

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## San Juan County Public Works

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### San Juan County Public Works

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species: knap spatial extent: County, San Juan

Conduct surveys/monitoring, do some control, on islands where PW owns infrastructure.

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## Seattle Urban Nature

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### Seattle Public Lands Habitat Survey

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species: phrag spatial extent: City, Seattle

Survey of habitat and species in urban areas. Documented phragmites in Duwamish River. Seattle Urban Nature became part of EarthCorps in 2009.

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## Skagit County Public Works

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### Big Lake Management District

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species: brel spatial extent: County, Skagit

Brazilian elodea treatment on Big Lake through an Integrated Aquatic Vegetation Management Plan (used to get Ecology funds) and a Lake Management District.

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## Skokomish Tribe

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### Skokomish Department of Natural Resources

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species: tun; zemu spatial extent: Reservation, Skokomish

Development an Aquatic Nuisance Species Management Plan. Have supported tunicate survey efforts for WDFW.

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## Snohomish County Surface Water Management

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### Lake Management Program

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species: hydr spatial extent: Snohomish County

Conduct education on how to prevent spread, use volunteers and County staff to detect any new species.

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species: brel spatial extent: Snohomish County

Control Brazilian elodea on Swartz Lake, a private lake.

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## Stillaguamish Tribe

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### Stillaguamish Tribe Natural Resource Department

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species: spar spatial extent: Reservation, Stillaguamish

Coordinate eradication with Snohomish and Skagit County NWCB, WDFW, WSDA, having success in eradication. Pat notes need for education on invasives among tribes.

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## Swinomish Tribe

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## Swinomish Tribe invasives management

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**species:** knap; spar

**spatial extent:** Reservation, Swinomish

Invasives program ramped up recently. Pre-2008, due to resistance to using herbicides in tidelines, focused on manual control of spar. Switch to herbicides has effectively reduced population.

## University of Washington

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### Biological Supply House/School Introduction Pathway Study

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**species:** brel

**spatial extent:** Washington State

International team looking at ways to reduce invasives introductions via biological supply houses and science classrooms. [http://www.fishwildlife.org/science\\_aquaticnuisance\\_posters.html](http://www.fishwildlife.org/science_aquaticnuisance_posters.html)

### Burke Museum Herbarium Collections

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**species:** kudz; vlmi; brel; hyd; knap; phra  
a: enar

**spatial extent:** Washington State

Collect and share information on plants including noxious weeds, maintain a Web site for reference.

### Invasion prediction model

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**species:** brel

**spatial extent:** Washington State

Develop models to forecast the invasion of 3 invasive aquatics in WA lakes including vlmi, with goal of enhancing prevention and guiding early detection and monitoring programs.

### Washington Sea Grant

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**species:** spar

**spatial extent:** Washington State

Fund a Spartina eradication and education service-learning project with WSDA, Island County NWCB, and students; develop a Spartina control handbook.

**species:** zemu; fesw; vlmi; brel; hyd; nutr;  
phra; caul; tun; spar

**spatial extent:** Washington State

Present aquatic invasive species topics to general audiences

## US Department of Agriculture

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### Federal Noxious Weeds List

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**species:** caul; hyd

**spatial extent:** National

Designed to prevent the introduction into the United States of invasive plants and to prevent the spread of newly introduced invasive plants within the US. Also see Invasive Species EO 13112.

### USDA Wildlife Services

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**species:** nutr

**spatial extent:** Washington State

All trapping is done at the request of State, County, or municipal jurisdictions or property owner. Working with state agencies and researchers to develop a nutria National Management and Control Plan

## US Fish & Wildlife Service

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### ANS Task Force

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**species:** caul; zemu

**spatial extent:** national

intergovernmental organization dedicated to preventing and controlling aquatic nuisance species, and implementing the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) of 1990.

## Aquatic Nuisance Species Program

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**species:** spar **spatial extent:** Washington State

Funded WDFW, WSDA, and Coastal Resources Alliance for Spartina control and monitoring in Puget Sound. Support "Stop Aquatic Hitchhikers" campaign, conduct outreach and education efforts and material

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**species:** nutr; tun **spatial extent:** Washington State

Participate in the Tunicate Response Advisory Committee. Support

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**species:** zemu **spatial extent:** Washington State

Fund survey efforts for zebra and quagga mussels; lead rapid response planning for mussels in the Columbia Basin (likely introduction pathway to Puget Sound). Support "Stop Aquatic Hitchhikers" campaign, do outreach/education, distribute materials

## Olympia Fish Health Center

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**species:** vhs **spatial extent:** Washington State

Screen salmon at federal hatcheries for pathogens of national concern (<http://www.fws.gov/wildfishsurvey/>)

## US Forest Service - Mount Baker - Snoqualmie National Forest

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### Mt. Baker - Snoqualmie NF Botany Program

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**species:** knap **spatial extent:** National Forest, Mount Baker-Snoqualmie

Detection occurs mostly in the course of other activities. Do control in selected sites.

## US Forest Service - Olympic National Forest

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### Olympic National Forest

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**species:** knap **spatial extent:** National Forest, Olympic

Actively survey for knap, control/eradication efforts for several knap populations are a high priority.

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**species:** kudz; vlmi; brel; hyd; phrag; spa **spatial extent:** National Forest, Olympic

Re brel, hyd, phrag: has not yet been detected but is on a watch list. Aquatic weeds are not a part of invasives program, but hope to increase awareness as few employees are aware of these species.

## US Geological Survey

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### Nonindigenous Aquatic Species: Database and Sightings Report

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**species:** zemu; vlmi; brel; hyd; nutr; tun; **spatial extent:** Washington State

Maintains a database of aquatic species data and reports, and an online portal for public to report sightings of aquatic invasive species.

## WA Department of Agriculture

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### Cooperative Weed Management Areas

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**species:** knap; phrag **spatial extent:** Washington State

WSDA funds CWMA's for eradication or control of species on the Noxious Weed List or WSDA quarantine lists. In Puget Sound, currently only used for knapweed and phragmites.

### Gypsy Moth Program

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**species:** gymo **spatial extent:** Washington State

Survey for asian, european moths across state. In 2009, 23,213 total traps, 18 North American GM trapped in W. WA, no Asian GM. See Townsend1.

### **Spartina Eradication Program**

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**species:** spar **spatial extent:** Washington State

Work with many agencies, universities, landowners, etc. to eradicate spar. Reduced statewide from 9,000 acres in 2003 to fewer than 1,250 acres projected in 2008 (as of 2007). See Phillips1, Murphy1.

### **WSDA Pest Program - Entomology**

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**species:** wbb **spatial extent:** Washington State

Trapping & visual surveys include a survey focused on wood-boring beetles, one targeting high-risk sites (e.g., break-bulk freight facilities), & one based on forest types & pathways. Education also.

### **WSDA Pest Program - Noxious Weed Control**

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**species:** knap **spatial extent:** Washington State

Offer detection, eradication, control, and funding assistance to local and state partners.

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**species:** kudz **spatial extent:** Washington State

Kudz only reported (& eradicated) in Clark County, also observed in Oregon

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**species:** phrag **spatial extent:** Washington State

See WSDA Phragmites Survey Results. Surveyed and mapped invasive genotype.

## **WA Department of Ecology**

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### **Aquatic Weeds Program**

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**species:** vlmi **spatial extent:** County, Pierce; County, Thurston

Fund & assist eradication efforts in 5 affected lakes. J. Parsons monitors to guide treatment, monitors regional lakes for vlmi, and sends plant samples for genetic analysis as needed.

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**species:** phrag **spatial extent:** Washington State

Funded a study to do DNA analysis to be able to pick out non-native genotype. Included in routine monitoring of public access lakes, but few records of it in the Puget Sound region.

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**species:** hyd **spatial extent:** County, King

Initiated hydrilla eradication at Pipe/Lucerne, now partner with King County. Had aquatic weed fund RCW changed to include hyd b/c was found in private lakes (not public lakes w/ boat launches). See KC1.

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**species:** brel **spatial extent:** Washington State

Fund eradication and control efforts; monitor lakes including funded eradication efforts. Conducted control trials in Battle Ground, Loomis Lakes. Got NPDES permit for treatment in early 2000s.

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**species:** zemu **spatial extent:** Washington State

J. Parsons collects plankton samples at lakes where she is conducting aquatic plant monitoring activities, following WDFW protocols, and submits samples to WDFW for analysis.

## Shoreline Program

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**species:** spar **spatial extent:** County, Skagit (Padilla Bay, Samish Bay)

Work to eradicate Spartina species on Ecology-owned lands.

## WA Department of Fish and Wildlife

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### Aquatic Nuisance Species

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**species:** nutr **spatial extent:** Washington State

Work with USDA and The Nature Conservancy to eradicate nutria populations in Skagit County.

**species:** zemu **spatial extent:** Washington State

Began monitoring in 1997 in partnership with PUDs, tribes, and Ecology. Do outreach and education to recreational boaters; inspect boats being transported into the state and as necessary ensure boats are cleaned.

### Fish Health Program

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**species:** vhs **spatial extent:** Washington State

Screen salmon at state hatcheries for regulated viral pathogens including VHS. Also authorized to ensure private aquaculturists test for diseases.

### Invasive Tunicate Species Management Program

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**species:** tun **spatial extent:** Puget Sound

Program includes surveying marinas for invasive tunicates, removing tunicates from boats in infested marinas to prevent spread.

### Living with Wildlife

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**species:** nutr **spatial extent:** Washington State

Recieve reports of nutria sightings, offer web resources regarding nutria

### Noxious Weeds

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**species:** knap **spatial extent:** Washington State

Land management staff conduct weed control at individual properties and report annually on acres of knapweed treated. Most [all?] is on E. side. Nox. Weed Coordinator participates in statewide Noxious Weed Board listings, coordination with other agencies.

**species:** kudz; vimi; brel; hyd **spatial extent:** Washington State

Prevent and would detect invasion of these species on agency lands. Noxious Weed Coordinator participates in statewide Noxious Weed Board listings, coordination with other agencies.

**species:** spar, phrag **spatial extent:** Washington State

Land management staff control these species on agency lands [any phrag in Puget Sound??], and in partnership with state and local agencies. Noxious Weed Coordinator participates in statewide Noxious Weed Board listings, coordination with other agencies.

### Washington State Ballast Water Program

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**species:** caul; tun; zemu **spatial extent:** Washington State

Hired a Ballast Water Inspector in 2004, and have developed discharge performance standards to reduce the threat of invasive species introductions via the discharge of ballast water.

## WA Department of Natural Resources

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### WDNR Agricultural and Grazing Lands

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**species:** knap **spatial extent:** Washington State (on DNR agriculture and grazing lands)

Farmers who lease agricultural lands from DNR are contractually responsible for control of noxious weeds through the Weed Management section of their Resource Management Plan (under the lease). DNR works with leasees on control.

### WDNR Aquatic Lands

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**species:** brel; spar; **spatial extent:** Washington State

Control invasive weed infestations and restore aquatic lands. New system created in partnership with WDFW will allow staff to complete a Weed Record electronically in the field.

### WDNR Forest Health Program

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**species:** wbb **spatial extent:** Washington State

Annual state forest aerial survey, can ID new wbb, ed & tech assist. to forest landowners on exotics. RCW 76.06 & rel. docs support prevention, detection, & eradication of newly detected exotic wbb.

### WDNR Natural Areas

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**species:** knap; spar; **spatial extent:** Washington State

Monitor for and control invasive plants on Natural Area Preserves, as part of site management and restoration. Manage to support native species and reduce success of invasives. Created system with WDFW for field data entry. Pay NWCB assessments on NAPs.

## WA Department of Transportation

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### WSDOT Vegetation Management

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**species:** knap; phrag **spatial extent:** Washington State

Train maintenance crews to monitor for and control knap and phrag where required by state & county law. IVM Plans map recurring infestations & describe planned prescription for treatment.

**species:** kudz; brel; hyd **spatial extent:** Washington State

Training and maintenance operations include monitoring and detection of this species if it were to show up in waters on or crossing highway rights of way. See IVM Plans.

## WA State Parks & Recreation Commission

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### Washington State Parks

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**species:** zemu **spatial extent:** Washington State

Educate public at boat launches and look for presence of invasive species including zebra and quagga mussels at select state parks.

**species:** spar **spatial extent:** Washington State

Conduct rare plant/vegetation community surveys in select state parks, including the majority of West side parks larger than 100 acres.

**species:** phrag **spatial extent:** Washington State

Conduct rare plant/vegetation community surveys in select state parks, including the majority of West side parks larger than 100 acres.



## REPORT 5: Data Files by Type

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>X011</b>	<b>spreadsheet - xl</b>	<b>spar</b>	<b>no file</b>
	<i>B. Rogers may be able to share GPS points of Spartina in Skagit Bay/Fir Island.</i>		
<b>X016</b>	<b>60 pages hardc</b>	<b>wbb</b>	<b>none</b>
	<i>Data from K. Ripley as follow up on E. LaGasa's surveys in Olympia and Tacoma Ports. Found Xyleborinus alni (family Scolytidae) in ports and neighboring forests.</i>		
<b>XG</b>	<b>shapefile?</b>	<b>brcl</b>	<b>no file</b>
	<i>J. Parsons may be able to share more detailed data on where Brazilian elodea was observed within specific lakes.</i>		
<b>XG</b>	<b>shapefile?</b>	<b>hyd</b>	<b>no file</b>
	<i>J. Parsons may be able to share more detailed data on where hydrilla was observed within Pipe &amp; Lucerne Lakes. This may compliment 2003-2006 data from King County (G35).</i>		
<b>XG</b>	<b>shapefile?</b>	<b>phrag</b>	<b>no file</b>
	<i>J. Parsons may be able to share more detailed data on phragmites where observed and noted in G39.</i>		
<b>XG</b>	<b>shapefile?</b>	<b>vlni</b>	<b>no file</b>
	<i>J. Parsons may have more detailed data on variable leaf milfoil presence within lakes, similar to the file shown in O4.</i>		
<b>X001</b>	-	-	-
	-	-	-
<b>X010</b>	<b>unknown</b>	<b>spar</b>	<b>no file</b>
	<i>S. Horton may be able to provide data on Spartina in Island County.</i>		
<b>X002</b>	<b>type unknown</b>	<b>brcl</b>	<b>no file</b>
	<i>S. Horton may have data on Brazilian elodea presence and control efforts on Lone Lake (funded by Ecology).</i>		
<b>X006</b>	<b>N/A</b>	<b>knap</b>	<b>no files</b>
	<i>S. Horton may be able to provide data on knapweed in Island County.</i>		
<b>XG</b>	<b>shapefile?</b>	<b>spar</b>	<b>no file</b>
	<i>D. Heimer may be able to share some historic GIS info on where did control for Spartina.</i>		
<b>XG</b>	<b>shapefile?</b>	<b>phrag</b>	-
	<i>The Nature Conservancy or D. Heimer may be able to share data on phragmites in Port Susan.</i>		
<b>X003</b>	<b>spreadsheet?</b>	<b>knap</b>	<b>no files</b>
	<i>D. Heimer may be able to provide data on presence and rough acreage of knapweed in WDFW Wildlife Areas, from surveys managers fill out annually on knapweed controlled.</i>		
<b>XG</b>	<b>shapefile?</b>	<b>knap</b>	<b>no files</b>
	<i>G. Haubrich collects data on knapweed across the state. See files D27-D29. BAP may have access to underlying shape files or more detailed data through S. MacDougall.</i>		

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>X005</b>	<b>N/A</b>	<b>knap</b>	<b>no files</b>
	<i>P. Grover may be able to provide data on knapweed in Mason County.</i>		
<b>XG</b>	<b>spreadsheet - xl</b>	<b>spar</b>	<b>no file</b>
	<i>S. Gohrman may be able to share analysis of Spartina data since 1996 to show reductions and status in Snohomish County, work done in partnership with two other counties and WDFW.</i>		
<b>XR027</b>	<b>report</b>	<b>phrag</b>	<b>no file</b>
	<i>D. Coggon may be able to share reports on phragmites in Kitsap County.</i>		
<b>XR022</b>	<b>management pl</b>	<b>brcl</b>	<b>no file</b>
	<i>Long Lake Management Plan for Brazilian elodea, Kitsap County. D. Coggon referenced but did not share. Also see <a href="http://www.longlakecill.org/">http://www.longlakecill.org/</a></i>		
<b>XR026</b>	<b>report</b>	<b>knap</b>	<b>no files</b>
	<i>D. Coggon referenced Kitsap County Survey data 1996 on knapweed. Have not been able to locate.</i>		
<b>XR024</b>	<b>management pl</b>	<b>brcl</b>	<b>no file</b>
	<i>Kitsap Lake Management Plan for Brazilian elodea management in Kitsap Lake, Kitsap County. D. Coggon did not share but referenced .</i>		
<b>X008</b>	<b>unknown</b>	<b>phrag</b>	<b>no file</b>
	<i>D. Coggon may be able to share data on phragmites in Kitsap County.</i>		
<b>X015</b>	<b>report</b>	<b>wbb</b>	<b>no files</b>
	<i>J. Cena may be able to share data on trap placement and specifics on wood-boring insects that WSDA traps for.</i>		
<b>U002d</b>	<b>database</b>	<b>nutr</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b>
	<i>Information on nutria in Washington, beginning in 1935, as compiled by the USGS in a national database which tracks freshwater species.</i>		
<b>R014</b>	<b>progress report</b>	<b>tun</b>	<b>Pleasant Harbor Report.doc</b>
	<i>Report on S. claya removal in Blaine, Pleasant Harbor, and Neah Bay.</i>		
<b>R015</b>	<b>report</b>	<b>tun</b>	<b>PSAT2007.pdf</b>
	<i>Report from the Puget Sound Action Team summarizing the state's response to non-native tunicates. Includes several data sets (R23, R24, D24).</i>		
<b>R026</b>	<b>report</b>	<b>nutr</b>	<b>Thesis Final.doc</b>
	<i>Report from UW students' characterization of nutria around Lake Washington and broader areas.</i>		
<b>R018</b>	<b>report</b>	<b>vimi</b>	<b>G0900241 Variable leaf milfoil eradication.doc</b>
	<i>Grant agreement between Ecology and Pierce County Noxious Weed Board for eradication and management of variable-leaf milfoil in Blue, Clear, and Florence lakes.</i>		
<b>R008</b>	<b>report</b>	<b>hyd</b>	<b>FPE-G0300219.doc</b>
	<i>Annual report information submitted to Ecology on Pipe &amp; Lucerne Lake hydrilla eradication.</i>		

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>R005</b>	<b>report</b>	<b><i>brel</i></b>	<b>08 Report_Clear Beaver Lakes.pdf, 2009 Year End Rep</b> <i>2008 Annual Report on management of other invasives in these Skagit County lakes references one small, floating, dead patch of Brazilian elodea on Beaver Lake: 2009 report does not describe any Brazilian</i>
<b>R007</b>	<b>press</b>	<b><i>brel</i></b>	<b>KentReporterArticle_6408.pdf</b> <i>News article on the presence and management of Brazilian elodea in Lake Fenwick in Kent.</i>
<b>R009</b>	<b>report</b>	<b><i>hyd</i></b>	<b>HydrillaApr09_Oct09.doc</b> <i>Most recent annual report submitted to Ecology on Pipe &amp; Lucerne Lake hydrilla eradication from King County.</i>
<b>R006</b>	<b>report</b>	<b><i>brel</i></b>	<b>2008 Lone Lake Egeria Eradication Project.doc</b> <i>Annual report on Brazilian elodea eradication efforts and detailed water quality observations in Lone Lake, Island County; submitted to Ecology.</i>
<b>R013</b>	<b>grant report</b>	<b><i>vlni</i></b>	<b>Milfoil Grant Report - Oct 30.doc</b> <i>Semi-annual grant report on management and current status of variable leaf milfoil in Blue, Clear (Thurston Co.), and Josephine Lakes.</i>
<b>R016</b>	<b>report from data</b>	<b><i>vhs</i></b>	<b>VHSV detections in database.pdf, VHSV detections by</b> <i>Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).</i>
<b>R021</b>	<b>spreadsheet - xl</b>	<b>-</b>	<b>Upland Spray Reports, many (20+)</b> <i>folder of spray records 1999-2008</i>
<b>R011</b>	<b>biennial report t</b>	<b><i>tun</i></b>	<b>WDFW2009.pdf</b> <i>Biennial report which describes 100 sites surveyed for tunicates, with 31 sites containing one of the three invasive species, and count data at specific sites. Have requested data from WDFW.</i>
<b>R024</b>	<b>report</b>	<b><i>tun</i></b>	<b>Washington State invasive tunicate survey for WDFW.d</b> <i>Report summarizing survey data included in D24, similar to Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>
<b>R010b</b>	<b>report</b>	<b><i>hyd</i></b>	<b>2008_Annual_Report.pdf</b> <i>Annual hydrilla eradication report from 2008 (was not yet online at time of data collection).</i>
<b>R010a</b>	<b>report</b>	<b><i>hyd</i></b>	<b>Hydrilla Reports from KC email.pdf</b> <i>Annual hydrilla eradication reports '03-'07 online at <a href="http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx">http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx</a>.</i>
<b>R012</b>	<b>report</b>	<b><i>tun</i></b>	<b>CohenetalRapidAssessment1998.pdf</b> <i>Surveys conducted of harbors, marinas, and natural areas in 1998, for invasive species including tunicates. Appendix 6 (page 33) summarizes findings with respect to tunicates.</i>
<b>R025</b>	<b>report</b>	<b><i>tun</i></b>	<b>hoodcanal_hb1896.pdf</b> <i>This report describes tunicates observed during surveys to document geoduck populations. Divers noted high abundance of tunicates in the Tahuya River delta in 2005. No tunicates were observed in subsequent</i>
<b>R017</b>	<b>annual manage</b>	<b><i>brel</i></b>	<b>Final Report Big Lake 2002 Final.pdf, Big Lake Survey 2</b> <i>Series of annual reports from Big Lake Management district in Skagit County on surveys and treatment for Brazilian elodea from 2002-2009. Appears not to be present in 2009.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>R023</b>	<b>project report</b>	<b>tun</b>	<b>Ciona report.doc</b> <i>Report on C. savignyi, same as Appendix 3 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>
<b>P004b</b>	<b>powerpoint des</b>	<b>gymo</b>	<b>GM Survey.pdf</b> <i>WSDA presentation on gypsy moth surveys.</i>
<b>P004a</b>	<b>annual report</b>	<b>gymo</b>	<b>GM Summary Report.pdf</b> <i>WSDA's annual report on gypsy moth surveys. See also at <a href="http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports">http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports</a></i>
<b>P001</b>	<b>management re</b>	<b>nutr</b>	<b>NutriaManagementResearch in PNW.pdf</b> <i>Report summarizing the status of nutria in Washington and Oregon, as well as management options.</i>
<b>P003</b>	<b>peer-reviewed li</b>	<b>tun</b>	<b>Grey 2008.pdf</b> <i>Peer-reviewed paper describing surveys of marine docks for invasive tunicates. Did not observe Didemnum or C. savignyi, found S. clava at one site. See <a href="http://home.uchicago.edu/~eqrey/index.html">http://home.uchicago.edu/~eqrey/index.html</a></i>
<b>P009</b>	<b>report</b>	<b>spar</b>	<b>Deception Pass SP - Vegetation Survey Report.pdf</b> <i>Description of Spartina around Cornet Bay in Deception Pass State Park as observed in vegetation surveys in 2008-2009. The Spartina was mapped and a treatment plan described.</i>
<b>P008</b>	<b>report</b>	<b>knap</b>	<b>Final Nisqually.pdf</b> <i>Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel State Park in 2006.</i>
<b>P007</b>	<b>report</b>	<b>knap</b>	<b>Final Lake Isabella SP.pdf</b> <i>Report describing knapweed as located along the northern pastures of Lake Isabella State Park during vegetation surveys in 2009.</i>
<b>P006</b>	<b>report</b>	<b>knap</b>	<b>Federation Forest - veg assoc and rare plant report - 2005.pdf</b> <i>Report noting knapweed as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.</i>
<b>P005</b>	<b>report</b>	<b>knap</b>	<b>Birch Bay SP Vegetation Survey.pdf</b> <i>Report describing mapped observations of knapweed in Birch Bay State Park during vegetation surveys in 2008.</i>
<b>P010</b>	<b>report</b>	<b>spar</b>	<b>Dosewallips - veg assoc and rare plant report.doc</b> <i>Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.</i>
<b>P002</b>	<b>annual report</b>	<b>spar</b>	<b>WSDASpartinaReport2007.pdf, hard copies of 2008 &amp; 2009.pdf</b> <i>Annual reports to the Legislature on Spartina control with information on acreage, distribution, eradication efforts, partners, etc. Received DRAFT of 2008, 2009 reports from C. Phillips, not for distribution.</i>
<b>O010</b>	<b>hardcopy trap r</b>	<b>gymo</b>	<b>none</b> <i>Data files from WSDA surveys 1972-2006 are in paper forms, with addresses but no gps coordinates for the ~25,000 traps set annually. All detections are shown in G41 and G42.</i>
<b>O002</b>	<b>image</b>	<b>nutr</b>	<b>washington_nutria.jpg</b> <i>Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>O001</b>	<b>anecdotal repor</b> <i>spar</i>	<b>none</b>	
	<i>Anecdotal communication that Spartina was observed on Vashon Island several years ago.</i>		
<b>O004</b>	<b>image</b> <i>vlni</i>	<b>O4_Florence Sep 09.jpg</b>	
	<i>Image of variable leaf milfoil presence within Florence Lake, based on J. Parsons GIS files.</i>		
<b>O012</b>	<b>poster</b> <i>tun</i>	<b>REEFGBPS2009.pdf</b>	
	<i>Poster on REEF's survey and education efforts, showing data collected to date, presented at Puget Sound Georgia Basin conference.</i>		
<b>O009</b>	<b>anecdotal repor</b> <i>brel</i>	<b>Katie Messick on elodea in KC.doc</b>	
	<i>Brel presence in Lake Dolloff, Sammamish Slough/River, Lake Sammamish, Lake WA, Ship Canal, Lake Union. Haven't seen brel in smaller lakes.</i>		
<b>O003</b>	<b>anecdotal repor</b> <i>nutr</i>	<b>none</b>	
	<i>UW and USDA Wildlife Services trapped over 200 nutria on about 40 acres around the University of Washington in 2009. More details under Programs.</i>		
<b>O008</b>	<b>anecdotal repor</b> <i>brel</i>	<b>no file</b>	
	<i>Anecdotal reports of Brazilian elodea in Lake Leland in Jefferson County from C. Lucero and E. Dixon.</i>		
<b>O007</b>	<b>anecdotal repor</b> <i>spar</i>	<b>N/A</b>	
	<i>Anecdotal communications that Spartina has been observed in Discovery Bay (C. Lucero) and at the mouth of the Dosewallips River (E. Dixon), both in Jefferson County.</i>		
<b>I007</b>	<b>image</b> <i>tun</i>	<b><a href="http://nwgeogirl.smugmug.com/Invasive-Tunicates">http://nwgeogirl.smugmug.com/Invasive-Tunicates</a></b>	
	<i>Photographs of the three invasive tunicates.</i>		
<b>I001</b>	<b>image</b> <i>brel</i>	<b>SammR_egeden_worststretch09.JPG, P1010040.JPG,</b>	
	<i>Photos from informal surveys for Brazilian elodea on Sammamish River (AKA Sammamish Slough), conducted by K. Messick of King County.</i>		
<b>I002</b>	<b>image</b> <i>hyd</i>	<b>IMG0821.JPG, DSCN1486.JPG, SCUBA 6_24 3.JPG</b>	
	<i>Photos from King County of hydrilla eradication program (informational sign, project divers) in Pipe Lake.</i>		
<b>I006</b>	<b>image</b> <i>phrag</i>	<b>IMG_6184.jpg IMG_6178.jpg</b>	
	<i>Photographs of phragmites on Whatcom Creek in Bellingham which was treated by L. Baldwin. First photographed 2006. Treated 9/23/09. Appeared to still be present 2/10.</i>		
<b>I005</b>	<b>image</b> <i>nutr</i>	<b>KAS to complete</b>	
	<i>Photographs of nutria observed near University of Washington in May 2008, at 47' 39" 13.58N 122' 17" 46.63W.</i>		
<b>I004</b>	<b>image</b> <i>phrag</i>	<b>IMG_7155.jpg, P9080012.jpg</b>	
	<i>Photograph of "phragmites island" right off University of Washington in Lake Washington, located at 47' 39" 11.74N 122' 17" 47.34W.</i>		
<b>I003</b>	<b>image</b> <i>spar</i>	<b>P5220019.jpg, P5220020.jpg</b>	
	<i>Photograph of Spartina observed on the way to Camano Island.</i>		

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G077b</b>	<b>shapefile</b>	<b>phrag</b>	<b>G077b.shp (Knapweed_phragmites.xlsx)</b> <i>Data file describes phragmites observed in WSDOT right-of-way at the Duwamish /1st Ave bridge and on SR 599, notina side of road and mileposts. Points represent reoccurring infestations (2-3 years).</i>
<b>G077a</b>	<b>shapefile</b>	<b>knap</b>	<b>G077a.shp (Knapweed_phragmites.xlsx)</b> <i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts and maximize control efforts.</i>
<b>G080b</b>	<b>shapefile</b>	<b>wbb</b>	<b>G080b_EWBIS_2009Survey</b>
<b>G080c</b>	<b>shapefile</b>	<b>wbb</b>	<b>G080c_WAExoticPinePest200</b>
<b>G087</b>		<b>nutr</b>	<i>Shapefile from UW students' spreadsheet of public sightings from a response network (sightings reported by phone or email).</i>
<b>G042</b>	<b>shapefile</b>	<b>gymo</b>	<b>G042.shp (GMDetects_07_09.shp)</b> <i>Shapefile showing all European gypsy moth detections via WSDA survey efforts from 2007, 2008, and 2009.</i>
<b>G041</b>	<b>shapefile</b>	<b>gymo</b>	<b>G041.shp (AGMDetectionsArchiveWSDA.shp)</b> <i>Shapefile showing all Asian gypsy moth detections recorded via WSDA survey efforts from 1972 - present day.</i>
<b>G045</b>	<b>shapefile</b>	<b>gymo</b>	<b>G045.shp (GypsyMoth_WSDA2009.shp)</b> <i>Shapefile showing all WSDA trap placements statewide, 2009.</i>
<b>G060</b>	<b>shapefile</b>	<b>spar</b>	<b>G060.shp (SpartinaPS2009Sites.shp)</b> <i>Data from statewide Spartina surveys and treatment in 2009.</i>
<b>G043</b>	<b>shapefile</b>	<b>gymo</b>	<b>G043.shp (GypsyMoth_WSDA2007.shp)</b> <i>Shapefile showing all WSDA trap placements statewide, 2007.</i>
<b>G044</b>	<b>shapefile</b>	<b>gymo</b>	<b>G044.shp (GypsyMoth_WSDA2008.shp)</b> <i>Shapefile showing all WSDA trap placements statewide, 2008.</i>
<b>G080</b>	<b>shapefiles</b>	<b>wbb</b>	
<b>G076b</b>	<b>online report</b>	<b>tun</b>	<b>G076b.shp</b> <i>All Type 2 and Type 3 REEF surveys conducted since 4/1/2006 in WA in REEF's database (REEF surveys have been conducted since 1998, tunicates were added in 2006). See ReadMe file.</i>
<b>G076a</b>	<b>online report</b>	<b>tun</b>	<b>G076a</b> <i>All tunicate sightings in REEF's Washington database (176 records). Sightings from a given survey share a form number. Both novice and expert data are included.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G079</b>	<b>spatial</b>	<b>PHRAG</b>	<b>Seattle_Public_Lands_Survey.mdb</b> <i>SUN mapped types of vegetation in Seattle parks, green belts, and other open spaces. Digitized habitat region delineations for use in GIS. Of WISC 15 priority species, only common reed detected.</i>
<b>G078</b>	<b>shapefile</b>	<b>vhs</b>	<b>VHSV detections in database.pdf, VHSV detections by</b> <i>Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not included in report).</i>
<b>G040</b>	<b>shapefile</b>	<b>knap</b>	<b>mbs_knapweed_2010_not_kittitas.shp</b> <i>Knapweed locations documented in Mt Baker-Snoqualmie NF from 1997-2008. Data were provided by many people to L. Martin, in many cases "with a scribble on a map or a verbal description."</i>
<b>G016</b>	<b>shapefile</b>	<b>-</b>	<b>(renoxiousweedsatialdata.zip)</b> -
<b>G017</b>	<b>shapefile</b>	<b>knap</b>	<b>G017.shp (Spotted Knapweed selection 1999.shp)</b> <i>Shapefile of spotted knapweed in Lewis County.</i>
<b>G068</b>	<b>shapefile</b>	<b>spar</b>	<b>G068.shp</b> <i>Spartina found on San Juan, Lopez, Orcas, and Decatur Islands.</i>
<b>G002b</b>	<b>shapefile</b>	<b>vlni</b>	<b>G002b (june2010.shp)</b> <i>Shapefile of variable leaf milfoil locations in Clear Lake, Thurston County. Shapefile does not show Blue Lake, but R. Johnson says it is solidly infested.</i>
<b>G071</b>	<b>abundance and</b>	<b>tun</b>	<b>G071.shp</b> <i>Data on Styela clava abundance and recruitment at Pleasant Harbor Marina (abundance data for 2005, 2007-8 forthcoming). E. Grey notes that WDFW attempted removal at this marina in 2006 or 2007.</i>
<b>G086</b>	<b>shapefile</b>	<b>brl</b>	<i>Observation of brl near pond on Turn Point, east shore of San Juan Island.</i>
<b>G064</b>	<b>shapefile</b>	<b>knap</b>	<b>NisquallyMashel.shp, etc.</b> <i>Data collected by LYRA Biological for WSPRC. Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-</i>
<b>G073a</b>	<b>spreadsheet - xl</b>	<b>knap</b>	<b>G072.shp</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Knapweed found in 4 of 56 parks surveyed</i>
<b>G062</b>	<b>shapefile</b>	<b>knap; spar</b>	<b>Select_WSP_Vegetation_Polygons.shp, etc.</b> <i>Data collected by URS on behalf of WSPRC</i>
<b>G065</b>	<b>shapefile</b>	<b>spar</b>	<b>Dosewallips.shp, etc.</b> <i>Collected by Pacific Biodiversity Institute for WSPRC. Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys</i>
<b>G063</b>	<b>shapefile</b>	<b>knap</b>	<b>FederationForest.shp, etc.</b> <i>Data collected by Pacific Biodiversity Institute for WSPRC. Knapweed noted as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G073c</b>	<b>spreadsheet - xl</b>	<b>phrag</b>	<b>G073.shp</b>
	<i>Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed</i>		
<b>G073b</b>	<b>spreadsheet - xl</b>	<b>spar</b>	<b>G073.shp</b>
	<i>Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed</i>		
<b>G066</b>	<b>shapefile</b>	<b>phrag</b>	<b>Whidbey.shp, etc.</b>
	<i>Data collected by Kathryn Beck and Joseph Arnett for WSPRC. Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>		
<b>G072</b>	<b>shapefile</b>	<b>knap</b>	<b>G072.shp (from 2009.xls)</b>
	<i>Locations of noxious weeds in Kitsap County. Only one knapweed site noted, at Olalla Valley Rd in Port Orchard.</i>		
<b>G046b</b>	<b>shapefile</b>	<b>knap</b>	<b>G046b.shp (from knapweed.gdb)</b>
	<i>Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase</i>		
<b>G047b</b>	<b>shapefile</b>	<b>spar</b>	<b>G047b.shp (Spartina_Isolated.shp)</b>
	<i>Point file of S. anglica distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.</i>		
<b>G046a</b>	<b>shapefile</b>	<b>knap</b>	<b>G046a.shp (from knapweed.gdb)</b>
	<i>Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase</i>		
<b>G047a</b>	<b>shapefile</b>	<b>spar</b>	<b>G047a.shp (Spartina.shp)</b>
	<i>Polygon of S. anglica distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.</i>		
<b>G057</b>	<b>shapefile</b>	<b>spar</b>	<b>G057.shp (2008_Spartina_data.shp)</b>
	<i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skaqit, and Whatcom Counties in 2008.</i>		
<b>G058</b>	<b>shapefile</b>	<b>spar</b>	<b>G058.shp (2007_survey_coverage.shp)</b>
	<i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skaqit County in 2007.</i>		
<b>G052</b>	<b>shapefile</b>	<b>spar</b>	<b>G052.shp (Survey_coverage.shp)</b>
	<i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skaqit County in 2009.</i>		
<b>G056</b>	<b>shapefile</b>	<b>spar</b>	<b>G056.shp (2008Survey_coverage.shp)</b>
	<i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skaqit, and Whatcom Counties in 2008.</i>		
<b>G055</b>	<b>shapefile</b>	<b>spar</b>	<b>G055.shp (XYWhatcom.shp)</b>
	<i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.</i>		
<b>G054</b>	<b>shapefile</b>	<b>spar</b>	<b>G054.shp (survey_coverage.shp)</b>
	<i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.</i>		

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G053</b>	<b>shapefile</b>	<b>spar</b>	<b>G053.shp (XYSkagit.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.</i>
<b>G051</b>	<b>shapefile</b>	<b>spar</b>	<b>G051.shp (XYSanJuan.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.</i>
<b>G049</b>	<b>shapefile</b>	<b>spar</b>	<b>G049.shp (XYIsland.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.</i>
<b>G048</b>	<b>shapefile</b>	<b>spar</b>	<b>G048.shp (Survey_Coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.</i>
<b>G059</b>	<b>shapefile</b>	<b>spar</b>	<b>G059.shp (2007_Spartina_data.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.</i>
<b>G050</b>	<b>shapefile</b>	<b>spar</b>	<b>G050.shp (Survey_Coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.</i>
<b>G027</b>	<b>shapefile</b>	<b>knap</b>	<b>G027.shp (from InvasiveCouncilWeeds_08_09.shp)</b> <i>Shapefile of knapweed in King County, 2008-2009, with information on presence, area, cover class, and habitat type.</i>
<b>G038</b>	<b>shapefile</b>	<b>vlni</b>	<b>G038.shp</b> <i>Shapefile showing most lakes in Puget Sound with variable leaf milfoil, as collected by J. Parsons in cooperation with others working on eradication in these lakes.</i>
<b>G037</b>	<b>shapefile</b>	<b>hyd</b>	<b>G037.shp</b> <i>Data on hydrilla presence in Pipe &amp; Lucerne Lakes, from J. Parsons surveys.</i>
<b>G036</b>	<b>shapefile</b>	<b>brl</b>	<b>G036.shp</b> <i>Shapefile on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>
<b>G035</b>	<b>shapefile</b>	<b>hyd</b>	<b>G035.shp (from pl_all_points.shp)</b> <i>Shapefiles for each year that hydrilla was present (2003-2006) since King County took over eradication efforts at Pipe &amp; Lucerne Lakes. Hydrilla has been absent for 3 yrs in Pipe, 5 yrs in Lucerne.</i>
<b>G034</b>	<b>shapefile</b>	<b>knap</b>	<b>G034.shp</b> <i>Knapweed sightings along roadsides in Gifford Pinchot NF in the Lewis County portion of the Nisqually Watershed in 2005-2007. B. Wamsley expects data is just from uplands, not in stream corridor.</i>
<b>G033</b>	<b>shapefile</b>	<b>knap</b>	<b>G033.shp (from mis species_mod.shp)</b> <i>Shapefile of big head knapweed in Jefferson County (a few sites). Populations noted by points, size not estimated. Federal lands not covered.</i>
<b>G032</b>	<b>shapefile</b>	<b>phrag</b>	<b>G032.shp (from misc species_mod.shp)</b> <i>Shapefile of phragmites in Jefferson County, showing one site mapped along SR 104.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G031</b>	<b>shapefile</b>	<b><i>knap</i></b>	<b>G031.shp (from spotted knapweed.shp)</b> <i>Shapefile of spotted knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Spotted knapweed is popping up along highways in J. County.</i>
<b>G039</b>	<b>shapefile</b>	<b><i>phrag</i></b>	<b>G039.shp (from D8_DOE_write 1-19 rpt_KAS.xls, G0_wr</b> <i>Shapefile of phragmites data collected by J. Parsons of Ecology in surveys.</i>
<b>G028</b>	<b>shapefile</b>	<b><i>knap</i></b>	<b>G028.shp</b> <i>Shapefile of knapweed on San Juan, Lopez, and Orcas Islands in 2007 from San Juan Public Works. Species codes are cenmac, cenpra, and censto.</i>
<b>G020</b>	<b>shapefile</b>	<b><i>phrag</i></b>	<b>G020.shp (from invasivespeciescouncil.shp)</b> <i>Shapefile of phragmites in Thurston County. Also see <a href="http://www.co.thurston.wa.us/tcweeds/special-projects.htm">http://www.co.thurston.wa.us/tcweeds/special-projects.htm</a></i>
<b>G026</b>	<b>shapefile</b>	<b><i>brei</i></b>	<b>G026.shp</b> <i>Shapefile showing Brazilian elodea observed in King County 2008-2009, with information on presence, area, cover class, and habitat type.</i>
<b>G025</b>	<b>shapefile</b>	<b><i>phrag</i></b>	<b>G025.shp (from InvasiveCouncilWeeds_08_09.shp)</b> <i>Shapefile of phragmites in King County in 2008-2009, with information on presence, area, cover class, and habitat type.</i>
<b>G024</b>	<b>shapefile</b>	<b><i>knap</i></b>	<b>G024.shp (from spottedknapweed.shp)</b> <i>Shapefile of spotted knapweed in Clallam County. Have limited spotted knapweed.</i>
<b>G023</b>	<b>shapefile</b>	<b><i>knap</i></b>	<b>G023.shp (from ceja.shp)</b> <i>Shapefile of meadow knapweed in Clallam County. Have lots of meadow knapweed. Hotspots are W. of Port Angeles, Olympic Hot Springs Road, behind Sequim in Burnt Hill (old sheep raising), along hwy.</i>
<b>G022</b>	<b>shapefile</b>	<b><i>knap</i></b>	<b>G022.shp (from ONF_knapweeds.shp)</b> <i>Shapefile of knapweed in Olympic National Forest, from surveys conducted 1997-2003. Now in treatment phase.</i>
<b>G021</b>	<b>shapefile</b>	<b><i>knap</i></b>	<b>G021.shp</b> <i>Shapefile of knapweed in Thurston County.</i>
<b>G019</b>	<b>shapefile</b>	<b><i>phrag</i></b>	<b>G019.shp</b> <i>Shapefile of non-native phragmites in Washington, compiled by G. Haubrich (WSDA Phragmites Survey Results)</i>
<b>G029</b>	<b>shapefile</b>	<b><i>knap</i></b>	<b>G029.shp (from meadow knapweed.shp)</b> <i>Shapefile of meadow knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Two large infestations on W. Valley Rd. outside Chimacum.</i>
<b>G018</b>	<b>shapefile</b>	<b><i>spar</i></b>	<b>G018.shp</b> <i>Shape file showing Spartina population status Sound-wide as of 2008. Categories shown are monitored/eradicated, 1 acre or less, 1 to 5 acres, 6-50 acres, &gt; 50 acres.</i>
<b>G075</b>	<b>shapefile</b>	<b><i>phrag</i></b>	<b>G075.shp</b> <i>Location of treatment of an ~250 sq. ft. population of phragmites on Whatcom Creek in Bellingham, at bridge on Holly Street (N48 45.223 W122 29.020).</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G070</b>	<b>shapefile</b>	<b>knap</b>	<b>G070.shp (from Whatcom knapweeds 2010.xls)</b> <i>Locations where ongoing monitoring is occurring of about 300 spotted knap, 200 meadow knap sites. L Baldwin says "some far-flung sites. e.g.. Newhalem. not included."</i>
<b>G061</b>	<b>shapefile</b>	<b>knap</b>	<b>G061.shp (Nox_weeds09.shp)</b> <i>Shapefile of knapweed distribution on San Juan Islands.</i>
<b>G067</b>	<b>shapefile</b>	<b>tun</b>	<b>Point_ge.shp, etc.</b>
<b>G083</b>		<b>KNAP</b>	<b>G083</b>
<b>G082</b>		<b>knap</b>	<b>G082</b>
<b>G080a</b>	<b>shapefile</b>	<b>wbb</b>	<b>G080a_EmeraldAshBorer2009</b>
<b>G081</b>		<b>nutr</b>	<b>G081</b> <i>Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.</i>
<b>G006b</b>	<b>shapefile</b>	<b>knap</b>	<b>G006b (Weed_Lines08.shp)</b> <i>Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.</i>
<b>G084</b>	<b>geodatabase</b>	<b>tun</b>	<b>2005_2007WDFWTahuyaSurveys</b> <i>The layer WDFWTahuyaSurvey2005 contains records showing the positions of all of the transects that were completed during the October, 2005 survey of the Tahuya geoduck tract. In the field C Sav P A, P</i>
<b>G085a</b>	<b>Shapefile</b>	<b>ZEMU</b>	
<b>G006c</b>	<b>shapefile</b>	<b>knap</b>	<b>G006c.shp (Weeds_Points_08.shp)</b> <i>Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.</i>
<b>G069</b>	<b>shapefile</b>	<b>knap</b>	<b>G069.shp</b> <i>shapefile created from data included in emails D009</i>
<b>D012</b>	<b>spreadsheet - xl</b>	<b>nutr</b>	<b>Puget Sound Nutria Take.xls</b> <i>Locations where USDA has trapped or shot nutria, with dates and numbers of nutria taken. Data are at county scale to avoid disclosing identity of those requesting services.</i>
<b>D033</b>	<b>csv</b>	<b>nutr</b>	<b>nutria_obs.csv</b> <i>UW students have collected data in 10 places around state where nutria are established.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>D016</b>	<b>spreadsheet</b> <i>knap</i>	<b>Knapweed Data for Cascadia.xls</b>	<i>Locations (addresses and some lat/long) where knapweed notices have been issued in Pierce County. They are updating database to incorporate habitat and trends/pathways in these observations.</i>
<b>D013</b>	<b>map of single p</b> <i>knap</i>	<b>SkagitCoKnapweed.pdf</b>	<i>Map from assessor's database showing one knapweed location in Skagit County (Sharp's corner in Anacortes, by Hart Lake, along Hwy 20). B. Rogers says others are on tribal, federal land.</i>
<b>D020</b>	<b>spreadsheet - xl</b> <i>spar</i>	<b>Spartina Spray Records.xls (1997-2008; no 2001)</b>	<i>Records describing where spraying for spartina conducted (mostly or just in Snohomish County) and with what partners.</i>
<b>D010c</b>	<b>images</b> <i>spar</i>	<b>Spt_survey_Wescott_marsh_2008.jpg</b>	<i>Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.</i>
<b>D010b</b>	<b>image - aerial e</b> <i>spar</i>	<b>Spt_survey_2008 copy.jpg</b>	<i>Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.</i>
<b>D010</b>	<b>map of coverag</b> <i>knap</i>	<b>Top Weeds per Island Map E_Size.pdf</b>	<i>Pdf map of 2007 knapweed survey data on Lopez, Orcas, and San Juan Islands.</i>
<b>D026</b>	<b>distribution ma</b> <i>brcl</i>	<b>Brazilian_elodea_dmap2003.pdf</b>	<i>Map of Brazilian elodea distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>
<b>D027</b>	<b>distribution ma</b> <i>knap</i>	<b>Brown_knap_dmap2003.pdf</b>	<i>Map of brown knapweed (C. jacea) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>
<b>D028</b>	<b>distribution ma</b> <i>knap</i>	<b>Black_knap_dmap2003</b>	<i>Map of black knapweed (C. nigra) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>
<b>D029</b>	<b>distribution ma</b> <i>knap</i>	<b>Diffuse_knap_dmap2003</b>	<i>Map of diffuse knapweed (C. diffusa) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and other sources.</i>
<b>D007</b>	<b>herbarium recor</b> <i>hyd</i>	<b>Giblin-hydrilla.doc</b>	<i>UW Herbarium records of hydrilla presence, 1995, 2002 (with J. Parsons).</i>
<b>D006</b>	<b>herbarium recor</b> <i>brcl</i>	<b>Giblin-elodea.doc</b>	<i>UW Herbarium records of Brazilian elodea presence, 1994-2006 (1994 with J. Parsons).</i>
<b>D004</b>	<b>herbarium recor</b> <i>spar</i>	<b>Giblin-spartina.doc</b>	<i>UW Herbarium records of Spartina presence, 1902-2005.</i>
<b>D003</b>	<b>herbarium recor</b> <i>phrag</i>	<b>Giblin-phragmites.doc</b>	<i>UW Herbarium records of phragmites presence, 1892-2005.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>D002</b>	<b>herbarium recor</b> <i>knap</i>	<b>Giblin-knapweed.doc</b>	<i>UW Herbarium records of knapweed presence, 1923-2007.</i>
<b>D018</b>	<b>spreadsheet - xl</b> <i>multiple</i>	<b>WSPRC Plant survey info.xlsx</b>	<i>Notes which parks in Puget Sound were surveyed, and where priority species found. Priority species were found at 7 of 56 parks surveyed in the Puget sound.</i>
<b>D019</b>	<b>lat/long and cov</b> <i>knap</i>	<b>NPS_Knapweed.xls</b>	<i>Description of one knap population in Olympic NP with estimated location and extent; has been present since before 2002 and may be treated in 2011.</i>
<b>D030</b>	<b>Observations wi</b> <i>knap</i>	<b>Spotted Knapweed Locations.xls</b>	<i>Data on mile markers where spotted knapweed found &amp; controlled. Locations primarily verbally documented, and are mostly on East side of park (not in PS).</i>
<b>D017</b>	<b>spreadsheet - xl</b> <i>phrag</i>	<b>Fort Casey - list of plants in park - 2003.xls</b>	<i>Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>
<b>D024</b>	<b>spreadsheet</b> <i>tun</i>	<b>Washington State invasive tunicates Gretchen Lambert</b>	<i>Tunicate survey data from Lambert &amp; Lambert shown in Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates, plus other diver data collected since 2006.</i>
<b>D032</b>	<b>excell spreadsh</b> <i>ZEMU</i>	<b>WDFW Current Artificial Substrates&amp;Plankton Sites, W</b>	
<b>dniX0</b>	<b>Filemaker spray</b> <i>phrag</i>	<b>none</b>	<i>Listing of target plants in spray zone, each zone may include multiple species. ~ 1,000 records annually in Puget Sound with beginning and ending mileposts.</i>
<b>dniD0</b>	<b>spreadsheet - xl</b> <i>knap</i>	<b>Knapweed_phragmites.xlsx</b>	<i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts and maximize control efforts.</i>
<b>dniD0</b>	<b>shapefile</b> <i>knap</i>	<b>StateRouteLRS.shp</b>	<i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts and maximize control efforts.</i>
<b>dniD0</b>	<b>spreadsheet - xl</b> <i>phrag</i>	<b>Knapweed_phragmites.xlsx</b>	<i>Data file describes phragmites observed in WSDOT right-of-way at the Duwamish /1st Ave bridge and on SR 599, noting side of road and mileposts. Points represent reoccurring infestations (2-3 years).</i>
<b>dniX0</b>	<b>Filemaker spray</b> <i>knap</i>	<b>no files</b>	<i>Data on target plants in spray zone, each zone may include multiple species. ~ 1,000 records annually in Puget Sound with begin. and end. mileposts. Data not shared.</i>
<b>dni</b>	<b>grant report</b> <i>brel</i>	<b>N/A</b>	<i>Ecology grant report</i>
<b>dni</b>	<b>N/A</b> <i>wbb</i>	<b>no files</b>	<i>They recruit volunteers to assist partner Seattle Public Utilities (SPU) in collecting data on native Douglas-fir beetles.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>dniR0</b>	<b>report</b>	<b>phrag</b>	<b>FPE-G0300203.doc</b> <i>Report on documentation and mapping of phrag, with summary of known treatment regimes.</i>
<b>dniR0</b>	<b>report</b>	<b>brel</b>	<b>Plummer Q3-09.pdf</b> <i>Control and monitoring of elodea in Plummer Lake, Chehalis River</i>
<b>dniR0</b>	<b>report</b>	<b>brel</b>	<b>FPE - G0300002 Elodea_Hydrilla.doc and many others</b> <i>Grant reports on Brazilian elodea control and management. Relevant documents have all been listed separately.</i>
<b>dni</b>	<b>N/A</b>	<b>spar</b>	<b>no file</b> <i>Doing eradication with Snohomish and Skagit County Weed Boards and WDFW. They are better sources of this data.</i>
<b>dniD0</b>	<b>online report</b>	<b>tun</b>	<b>PNW_geog.txt</b> <i>List of the geographic code, location name, lat and long (in Deg Min.min/100) for all Washington sites in the REEF database. Surveys without a specific site given have geographic codes ending in 00.</i>
<b>dniD0</b>	<b>online report</b>	<b>tun</b>	<b>tunicates122109.txt</b> <i>All tunicate sightings in REEF's Washington database (176 records). Sightings from a given survey share a form number. Both novice and expert data are included.</i>
<b>dniD0</b>	<b>online report</b>	<b>tun</b>	<b>WA_surveys.txt</b> <i>All Type 2 and Type 3 REEF surveys conducted since 4/1/2006 in WA in REEF's database (REEF surveys have been conducted since 1998, tunicates were added in 2006). See ReadMe file.</i>
<b>dniO0</b>	<b>anecdotal repor</b>	<b>nutr</b>	<b>none</b> <i>WDFW (or USDA) was catching nutria at Barnaby Lake last year? Cross check with D12, may be able to put a finer point on some of those data.</i>
<b>dniG0</b>	<b>shapefile</b>	<b>hyd</b>	<b>G0_wria_rpt.shp</b> <i>Data on hydrilla presence in lakes basin wide, collected by J. Parsons of Ecology in surveys. Has only documented hydrilla in Pipe &amp; Lucerne Lakes, King County.</i>
<b>dniD0</b>	<b>spreadsheet - xl</b>	<b>phrag</b>	<b>D8_DOE_wria 1-19 rpt_KAS.xls</b> <i>J. Parsons limited survey data on phragmites.</i>
<b>dniG0</b>	<b>shapefile</b>	<b>brel</b>	<b>G0_wria_rpt.shp</b> <i>Data on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>
<b>dniG0</b>	<b>shapefile</b>	<b>vimi</b>	<b>G0_wria_rpt.shp</b> <i>Point data for most of the lakes with milfoil (depends on cooperation with others doing work). She has more detailed database to share.</i>
<b>dniG0</b>	<b>shapefile</b>	<b>phrag</b>	<b>G0_wria_rpt.shp</b> <i>Limited data on phragmites; Dept of Ag and Counties should have phragmites data</i>
<b>dniD0</b>	<b>spreadsheet - xl</b>	<b>hyd</b>	<b>D8_DOE_wria 1-19 rpt_KAS.xls</b> <i>Data on hydrilla presence in Pipe &amp; Lucerne Lakes, from J. Parsons surveys. Also see <a href="http://www.ecy.wa.gov/programs/eap/lakes/aquaticplants/index.html#annualsurvey">http://www.ecy.wa.gov/programs/eap/lakes/aquaticplants/index.html#annualsurvey</a></i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>dniD0</b>	spreadsheet - xl <i>breI</i>	<b>D8_DOE_wria 1-19</b>	<b>rpt_KAS.xls</b> <i>Data on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>
<b>dniD0</b>	spreadsheet - xl <i>multiple</i>	<b>wria 1-19</b>	<b>rpt.xlsx</b> <i>basin wide data</i>
<b>dniD0</b>	spreadsheet - xl <i>vImi</i>	<b>D8_DOE_wria 1-19</b>	<b>rpt_KAS.xls</b> <i>Point data for most of the lakes with milfoil (depends on cooperation with others doing work). She has more detailed database to share.</i>
<b>dniU0</b>	online report <i>tun</i>	<b>http://www.reef.org/db/reports/dist/species/PAC/195/19</b>	<i>Didemnum reports- sightings in region 1996-current; listed by location and number of sightings</i>
<b>dniU0</b>	online report <i>tun</i>	<b>http://www.reef.org/db/reports/dist/species/PAC/196/19</b>	<i>Ciona savignyi reports- sightings in region 1996-current; listed by location and number of sightings</i>
<b>dniU0</b>	report <i>tun</i>	<b>http://www.reef.org/db/reports/dist/species/PAC/194/19</b>	<i>Styela clava reports- sightings in region 1996-current; listed by location and number of sightings</i>
<b>dniG0</b>	shapefile <i>spar</i>	<b>GHSpartina2008</b>	<b>.shp</b> <i>Spartina locations in Grays Harbor</i>
<b>dniG0</b>	shapefile <i>phrag</i>	<b>StatePhragmites</b>	<b>.shp</b> <i>combined data for G11 and G13- Phragmites in WA State, native and non-native</i>
<b>dniG0</b>	shapefile <i>phrag</i>	<b>Native</b>	<b>.shp</b> <i>native Phragmites in Washington State</i>
<b>dniG0</b>	shapefile <i>knap</i>	<b>Meadow_knapweed 102005</b>	<b>.shp</b> <i>meadow knapweed populations in 2005- need to figure out where it is located; shapefile projection undefined - looks like south sound somewhere</i>
<b>dniG0</b>	shapefile <i>spar</i>	<b>PugetSoundSpartina_2008all</b>	<b>.shp</b> <i>Spartina population status as of 2008 - categories: monitored/eradicated, 1 acre or less, 1 to 5 acres, 6-50 acres, &gt; 50 acres</i>
<b>dniG0</b>	shapefile <i>phrag</i>	<b>Nonnative</b>	<b>.shp</b> <i>Non-native Phragmites in Washington State</i>
<b>dniG0</b>	shapefile <i>spar</i>	<b>2008WillapaTreatments_2ndLap</b>	<b>.shp</b> <i>Spartina treatment locations in Willapa Bay</i>
<b>dniG0</b>	shapefile <i>spar</i>	<b>WillapaTreatments2008</b>	<b>.shp</b> <i>Spartina treatment locations in Willapa Bay</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>dniO0</b>	<b>anecdotal repor</b>	<b>phrag</b>	<b>no file</b>
	<i>Has been identified in one location along Hwy 104 at milepost 10.5. See file G032.</i>		
<b>dni</b>	-	-	-
	-		
<b>dniR0</b>	<b>emails describi</b>	<b>nutr</b>	<b>SightingsReportedtoWDFW.doc</b>
	<i>Several emails describing spottings of nutria.</i>		
<b>dniD0</b>	<b>lat/long records</b>	<b>knap; spar</b>	<b>Corrections San Juan County weeds email chain.pdf</b>
	<i>Chain of emails noting sites where Knap and SPAR were observed. Description of knap populations found on San Juan, Lopez, and Orcas Islands. Note that older observations were recollected and translated to</i>		
<b>dni</b>	<b>N/A</b>	<b>brel</b>	<b>no file</b>
	<i>He originally indicated USFWS had data, but they do not, although they fund Rick Johnson's work on Brazilian elodea in the Chehalis (not in PS).</i>		
<b>dniG0</b>	<b>shapefile</b>	<b>phrag</b>	<b>invasivespeciescouncil.shp</b>
	<i><a href="http://www.co.thurston.wa.us/tcweeds/special-projects.htm">http://www.co.thurston.wa.us/tcweeds/special-projects.htm</a></i>		
<b>dniG0</b>	<b>shapefile</b>	<b>brel</b>	<b>allpoints.shp, allpoly.shp</b>
	<i>current elodea baseline files on the Chehalis River in 2009. All Brazilian elodea in Thurston County is in Chehalis river basin, thus not in PS.</i>		
<b>dniG0</b>	<b>shapefile</b>	<b>knap</b>	<b>G001b.shp (invasivespeciescouncil_KNAP,shp)</b>
	<i>Thurston County knapweeds; see also <a href="http://www.co.thurston.wa.us/tcweeds/special-projects.htm">http://www.co.thurston.wa.us/tcweeds/special-projects.htm</a></i>		
<b>dni</b>	<b>N/A</b>	<b>kudz</b>	<b>no file</b>
	<i>Observation and management of kudzu in Clark County</i>		
<b>dniU0</b>	<b>database</b>	<b>multiple</b>	<b><a href="http://www.ecy.wa.gov/programs/eap/lakes/aquaticplan">http://www.ecy.wa.gov/programs/eap/lakes/aquaticplan</a></b>
	<i>Online database describes all Ecology's survey efforts. Jenifer P. is sending the actual data</i>		
<b>dniD0</b>	<b>spreadsheet - xl</b>	<b>multiple</b>	<b>Regulations database for Access Ecology.xlsx</b>
	<i>Regulations database - not a data file</i>		
<b>dniD0</b>	<b>abundance and</b>	<b>tun</b>	<b>StyelaClava Data.xls</b>
	<i>Data on Styela clava abundance and recruitment at Pleasant Harbor Marina (abundance data for 2005, 2007-8 forthcoming). E. Grey notes that WDFW attempted removal at this marina in 2006 or 2007.</i>		
<b>dniD0</b>	<b>herbarium recor</b>	<b>vmi</b>	<b>Giblin-milfoil.doc</b>
	<i>records of presence, 2006 (J Parsons)</i>		
<b>dniU0</b>	<b>database</b>	<b>spar</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b>
	<i>Information on Spartina in Washington, beginning in 1990, as compiled by the USGS in a national database which tracks freshwater species.</i>		

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>dniU0</b>	<b>database</b>	<b>vlni</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>
<b>dniU0</b>	<b>database</b>	<b>tun</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Information on tunicates in Washington, beginning in 1998, as compiled by the USGS in a national database which tracks freshwater species.</i>
<b>dniU0</b>	<b>database</b>	<b>brel</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>
<b>dniU0</b>	<b>database</b>	<b>zemu</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>
<b>dniU0</b>	<b>database</b>	<b>hyd</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>
<b>dniD0</b>	<b>spreadsheet - xl</b>	<b>multiple</b>	<b>WSPRC Plant survey info.xlsx</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Priority species were found at 7 of 56 parks surveyed in the Puget sound.</i>
<b>dniU0</b>	<b>none</b>	<b>tun</b>	<b>-</b> <i>See <a href="http://vmp.bioe.orst.edu/default.aspx">http://vmp.bioe.orst.edu/default.aspx</a></i>
<b>dniU0</b>	<b>none</b>	<b>spar</b>	<b>-</b> <i>Any results from volunteer monitoring program, described at <a href="http://vmp.bioe.orst.edu/default.aspx">http://vmp.bioe.orst.edu/default.aspx</a></i>
<b>dniU0</b>	<b>none</b>	<b>caul</b>	<b>-</b> <i>See <a href="http://vmp.bioe.orst.edu/default.aspx">http://vmp.bioe.orst.edu/default.aspx</a></i>
<b>dniG0</b>	<b>shapefile</b>	<b>phrag</b>	<b>misc species_mod.shp</b> <i>Knows of and has mapped one site of phragmites, along SR 104.</i>
<b>dniG0</b>	<b>shapefile</b>	<b>hyd</b>	<b>pl_all_points.shp</b> <i>Shapefiles for each year that hyd was present (2003-2006) since King County took over eradication efforts at Pipe &amp; Lucerne Lakes . Hyd has been absent for 3 years in Pipe Lk, 5 years in Lucerne Lk.</i>
<b>dniG0</b>	<b>shapefile</b>	<b>knap</b>	<b>G006a (Noxious_weeds.shp)</b> <i>2007 knapweed data (cenmac, cenpra, censto)</i>
<b>dniD0</b>	<b>spreadsheet - xl</b>	<b>knap</b>	<b>2009.xls</b> <i>Locations of noxious weeds in Kitsap County. Only one knapweed site noted, at Olalla Valley Rd in Port Orchard.</i>
<b>dniP0</b>	<b>annual report</b>	<b>knap</b>	<b>Kitsap_2008_annual_report.pdf</b> <i>Annual report. Note that very little knapweed has been detected in surveyed area.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>dniG0</b>	<b>shapefile</b>	<b>phrag</b>	<b>InvasiveCouncilWeeds_08_09.shp</b> <i>Presence, area, cover class, habitat type</i>
<b>dniG0</b>	<b>shapefile</b>	<b>brel</b>	<b>InvasiveCouncilWeeds_08_09.shp</b> <i>Presence, area, cover class, habitat type of Brazilian elodea in King County. Have shape file point data for Brazilian elodea</i>
<b>dni</b>	<b>N/A</b>	<b>wbb</b>	<b>no files</b> <i>Tracking native Douglas-fir beetles (family Curculionidae)</i>
<b>dni</b>	<b>N/A</b>	<b>knap</b>	<b>no data</b> <i>Collect data and send to King County. See G5a.</i>
<b>dniG0</b>	<b>shapefile</b>	<b>knap</b>	<b>ONF_knapweeds.shp</b> <i>Shapefile of knapweed in Olympic National Forest, from surveys conducted 1997-2003. Now in treatment phase.</i>
<b>dniG0</b>	<b>shapefile</b>	<b>knap</b>	<b>ceja.shp</b> <i>Shapefile of meadow knapweed in Clallam County. Have lots of meadow knapweed. Hotspots are W. of Port Angeles, Olympic Hot Springs Road, behind Sequim in Burnt Hill (old sheep raising), along hwy.</i>
<b>dniG0</b>	<b>shapefile</b>	<b>knap</b>	<b>spottedknapweed.shp</b> <i>Shapefile of spotted knapweed in Clallam County. Have limited spotted knapweed.</i>
<b>dniD0</b>	<b>treatment descr</b>	<b>phrag</b>	<b>Baldwin Phragmites.pdf</b> <i>Location of treatment of an ~250 sq. ft. population of phragmites on Whatcom Creek in Bellingham, at bridge on Holly Street (N48 45.223 W122 29.020).</i>
<b>dniR0</b>	-	<b>hyd</b>	- <i>Hyd not documented in any of these reports</i>
<b>dniR0</b>	-	<b>vimi</b>	- <i>vimi not documented in any of these reports</i>
<b>dniD0</b>	<b>spreadsheet - xl</b>	<b>phrag</b>	<b>Fort Casey - list of plants in park - 2003.xls</b> <i>Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>
<b>dniG0</b>			
<b>dniG0</b>			
<b>dniD0</b>	<b>spreadsheet</b>	<b>tun</b>	<b>Ciona running data.xls</b> <i>Data used in report on C. savignyi in Appendix 3 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>dniG0</b>			

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## REPORT 5: Data Files by Type

D= spreadsheets  
G = shapefiles  
I = images

O = other (including anecdotal reports)  
P/R = reports (published and unpublished)  
U = URLs or online sources  
X = pending

dni, \_dni = do not include these files in  
baseline assessment

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>78 records</b>			
<b>_dni</b>	<b>grant report</b>	<b>breI</b>	<b>N/A</b> <i>Ecology grant report</i>
<b>_dni</b>	<b>N/A</b>	<b>wbb</b>	<b>no files</b> <i>They recruit volunteers to assist partner Seattle Public Utilities (SPU) in collecting data on native Douglas-fir beetles.</i>
<b>_dni</b>	<b>N/A</b>	<b>spar</b>	<b>no file</b> <i>Doing eradication with Snohomish and Skagit County Weed Boards and WDFW. They are better sources of this data.</i>
<b>_dni</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>_dni</b>	<b>N/A</b>	<b>breI</b>	<b>no file</b> <i>He originally indicated USFWS had data, but they do not, although they fund Rick Johnson's work on Brazilian elodea in the Chehalis (not in PS).</i>
<b>_dni</b>	<b>N/A</b>	<b>kudz</b>	<b>no file</b> <i>Observation and management of kudzu in Clark County</i>
<b>_dni</b>	<b>N/A</b>	<b>wbb</b>	<b>no files</b> <i>Tracking native Douglas-fir beetles (family Curculionidae)</i>
<b>_dni</b>	<b>N/A</b>	<b>knap</b>	<b>no data</b> <i>Collect data and send to King County. See G5a.</i>
<b>_dniD0</b>	<b>spreadsheet - xls</b>	<b>multiple</b>	<b>Regulations database for Access Ecology.xlsx</b> <i>Regulations database - not a data file</i>
<b>_dniD0</b>	<b>herbarium records</b>	<b>vImi</b>	<b>Giblin-milfoil.doc</b> <i>records of presence, 2006 (J Parsons)</i>
<b>_dniD0</b>	<b>spreadsheet - xls</b>	<b>multiple</b>	<b>wria 1-19 rpt.xlsx</b> <i>basin wide data</i>
<b>_dniD0</b>	<b>spreadsheet - xls</b>	<b>breI</b>	<b>D8_DOE_wria 1-19 rpt_KAS.xls</b> <i>Data on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>_dniD0</b>	spreadsheet - xls	<b>hyd</b>	<b>D8_DOE_wria 1-19 rpt_KAS.xls</b> <i>Data on hydrilla presence in Pipe &amp; Lucerne Lakes, from J. Parsons surveys. Also see <a href="http://www.ecy.wa.gov/programs/eap/lakes/aquaticplants/index.html#annualsurvey">http://www.ecy.wa.gov/programs/eap/lakes/aquaticplants/index.html#annualsurvey</a></i>
<b>_dniD0</b>	spreadsheet - xls	<b>phrag</b>	<b>D8_DOE_wria 1-19 rpt_KAS.xls</b> <i>J. Parsons limited survey data on phragmites.</i>
<b>_dniD0</b>	spreadsheet - xls	<b>vlni</b>	<b>D8_DOE_wria 1-19 rpt_KAS.xls</b> <i>Point data for most of the lakes with milfoil (depends on cooperation with others doing work). She has more detailed database to share.</i>
<b>_dniD0</b>	lat/long records	<b>knap; spar</b>	<b>Corrections San Juan County weeds email chain.pdf</b> <i>Chain of emails noting sites where KNAP and SPAR were observed. Description of knap populations found on San Juan, Lopez, and Orcas Islands. Note that older</i>
<b>_dniD0</b>	spreadsheet - xls	<b>knap</b>	<b>Knapweed_phragmites.xlsx</b> <i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts</i>
<b>_dniD0</b>	shapefile	<b>knap</b>	<b>StateRouteLRS.shp</b> <i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts</i>
<b>_dniD0</b>	spreadsheet - xls	<b>phrag</b>	<b>Knapweed_phragmites.xlsx</b> <i>Data file describes phragmites observed in WSDOT right-of-way at the Duwamish /1st Ave bridge and on SR 599, noting side of road and mileposts. Points represent</i>
<b>_dniD0</b>	abundance and recruitment data	<b>tun</b>	<b>StyelaClava Data.xls</b> <i>Data on Styela clava abundance and recruitment at Pleasant Harbor Marina (abundance data for 2005, 2007-8 forthcoming). E. Grey notes that WDFW attempted</i>
<b>_dniD0</b>	spreadsheet - xls	<b>knap</b>	<b>2009.xls</b> <i>Locations of noxious weeds in Kitsap County. Only one knapweed site noted, at Olalla Valley Rd in Port Orchard.</i>
<b>_dniD0</b>	spreadsheet - xls	<b>phrag</b>	<b>Fort Casey - list of plants in park - 2003.xls</b> <i>Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>
<b>_dniD0</b>	spreadsheet - xls	<b>multiple</b>	<b>WSPRC Plant survey info.xlsx</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Priority species were found at 7 of 56 parks surveyed in the Puget sound.</i>
<b>_dniD0</b>	online report	<b>tun</b>	<b>tunicates122109.txt</b> <i>All tunicate sightings in REEF's Washington database (176 records). Sightings from a given survey share a form number. Both novice and expert data are included.</i>
<b>_dniD0</b>	online report	<b>tun</b>	<b>PNW_geog.txt</b> <i>List of the geographic code, location name, lat and long (in Deg Min.min/100) for all Washington sites in the REEF database. Surveys without a specific site given have</i>
<b>_dniD0</b>	online report	<b>tun</b>	<b>WA_surveys.txt</b> <i>All Type 2 and Type 3 REEF surveys conducted since 4/1/2006 in WA in REEF's database (REEF surveys have been conducted since 1998, tunicates were added in</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>_dniD0</b>	treatment description	<b>phrag</b>	<b>Baldwin Phragmites.pdf</b> <i>Location of treatment of an ~250 sq. ft. population of phragmites on Whatcom Creek in Bellingham, at bridge on Holly Street (N48 45.223 W122 29.020).</i>
<b>_dniD0</b>	spreadsheet	<b>tun</b>	<b>Ciona running data.xls</b> <i>Data used in report on C. savignyi in Appendix 3 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>
<b>_dniG0</b>	shapefile	<b>phrag</b>	<b>G0_wria_rpt.shp</b> <i>Limited data on phragmites; Dept of Ag and Counties should have phragmites data</i>
<b>_dniG0</b>	shapefile	<b>vlni</b>	<b>G0_wria_rpt.shp</b> <i>Point data for most of the lakes with milfoil (depends on cooperation with others doing work). She has more detailed database to share.</i>
<b>_dniG0</b>	shapefile	<b>brel</b>	<b>G0_wria_rpt.shp</b> <i>Data on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>
<b>_dniG0</b>	shapefile	<b>hyd</b>	<b>G0_wria_rpt.shp</b> <i>Data on hydrilla presence in lakes basin wide, collected by J. Parsons of Ecology in surveys. Has only documented hydrilla in Pipe &amp; Lucerne Lakes, King County.</i>
<b>_dniG0</b>	shapefile	<b>phrag</b>	<b>invasivespeciescouncil.shp</b> <i><a href="http://www.co.thurston.wa.us/tcweeds/special-projects.htm">http://www.co.thurston.wa.us/tcweeds/special-projects.htm</a></i>
<b>_dniG0</b>	shapefile	<b>knap</b>	<b>G001b.shp (invasivespeciescouncil_KNAP.shp)</b> <i>Thurston County knapweeds; see also <a href="http://www.co.thurston.wa.us/tcweeds/special-projects.htm">http://www.co.thurston.wa.us/tcweeds/special-projects.htm</a></i>
<b>_dniG0</b>	shapefile	<b>brel</b>	<b>allpoints.shp, allpoly.shp</b> <i>current elodea baseline files on the Chehalis River in 2009. All Brazilian elodea in Thurston County is in Chehalis river basin, thus not in PS.</i>
<b>_dniG0</b>	shapefile	<b>knap</b>	<b>ONF_knapweeds.shp</b> <i>Shapefile of knapweed in Olympic National Forest, from surveys conducted 1997-2003. Now in treatment phase.</i>
<b>_dniG0</b>	shapefile	<b>knap</b>	<b>ceja.shp</b> <i>Shapefile of meadow knapweed in Clallam County. Have lots of meadow knapweed. Hotspots are W. of Port Angeles, Olympic Hot Springs Road, behind Sequim in Burnt</i>
<b>_dniG0</b>	shapefile	<b>knap</b>	<b>spottedknapweed.shp</b> <i>Shapefile of spotted knapweed in Clallam County. Have limited spotted knapweed.</i>
<b>_dniG0</b>	shapefile	<b>phrag</b>	<b>InvasiveCouncilWeeds_08_09.shp</b> <i>Presence, area, cover class, habitat type</i>
<b>_dniG0</b>	shapefile	<b>brel</b>	<b>InvasiveCouncilWeeds_08_09.shp</b> <i>Presence, area, cover class, habitat type of Brazilian elodea in King County. Have shape file point data for Brazilian elodea</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>_dniG0</b>	shapefile	<b>knap</b>	<b>G006a (Noxious_weeds.shp)</b> <i>2007 knapweed data (cenmac, cenpra, censto)</i>
<b>_dniG0</b>			
<b>_dniG0</b>	shapefile	<b>phrag</b>	<b>misc species_mod.shp</b> <i>Knows of and has mapped one site of phragmites, along SR 104.</i>
<b>_dniG0</b>			
<b>_dniG0</b>	shapefile	<b>hyd</b>	<b>pl_all_points.shp</b> <i>Shapefiles for each year that hyd was present (2003-2006) since King County took over eradication efforts at Pipe &amp; Lucerne Lakes . Hyd has been absent for 3 years in</i>
<b>_dniG0</b>	shapefile	<b>phrag</b>	<b>Nonnative.shp</b> <i>Non-native Phragmites in Washington State</i>
<b>_dniG0</b>	shapefile	<b>knap</b>	<b>Meadow_knapweed 102005.shp</b> <i>meadow knapweed populations in 2005- need to figure out where it is located; shapefile projection undefined - looks like south sound somewhere</i>
<b>_dniG0</b>	shapefile	<b>phrag</b>	<b>Native.shp</b> <i>native Phragmites in Washington State</i>
<b>_dniG0</b>	shapefile	<b>phrag</b>	<b>StatePhragmites.shp</b> <i>combined data for G11 and G13- Phragmites in WA State, native and non-native</i>
<b>_dniG0</b>	shapefile	<b>spar</b>	<b>PugetSoundSpartina_2008all.shp</b> <i>Spartina population status as of 2008 - categories: monitored/eradicated, 1 acre or less, 1 to 5 acres, 6-50 acres, &gt; 50 acres</i>
<b>_dniG0</b>	shapefile	<b>spar</b>	<b>GHSpartina2008.shp</b> <i>Spartina locations in Grays Harbor</i>
<b>_dniG0</b>	shapefile	<b>spar</b>	<b>2008WillapaTreatments_2ndLap.shp</b> <i>Spartina treatment locations in Willapa Bay</i>
<b>_dniG0</b>	shapefile	<b>spar</b>	<b>WillapaTreatments2008.shp</b> <i>Spartina treatment locations in Willapa Bay</i>
<b>_dniG0</b>			

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>_dniO0</b>	anecdotal report of nutria trapping	<b>nutr</b>	<b>none</b> <i>WDFW (or USDA) was catching nutria at Barnaby Lake last year? Cross check with D12, may be able to put a finer point on some of those data.</i>
<b>_dniO0</b>	anecdotal report	<b>phrag</b>	<b>no file</b> <i>Has been identified in one location along Hwy 104 at milepost 10.5. See file G032.</i>
<b>_dniPO</b>	annual report	<b>knap</b>	<b>Kitsap_2008_annual_report.pdf</b> <i>Annual report. Note that very little knapweed has been detected in surveyed area.</i>
<b>_dniRO</b>	emails describing presence	<b>nutr</b>	<b>SightingsReportedtoWDFW.doc</b> <i>Several emails describing spottings of nutria.</i>
<b>_dniRO</b>	report	<b>phrag</b>	<b>FPE-G0300203.doc</b> <i>Report on documentation and mapping of phrag, with summary of known treatment regimes.</i>
<b>_dniRO</b>	report	<b>brel</b>	<b>FPE - G0300002 Elodea_Hydrilla.doc and many others</b> <i>Grant reports on Brazilian elodea control and management. Relevant documents have all been listed separately.</i>
<b>_dniRO</b>	report	<b>brel</b>	<b>Plummer Q3-09.pdf</b> <i>Control and monitoring of elodea in Plummer Lake, Chehalis River</i>
<b>_dniRO</b>	-	<b>vlni</b>	- <i>vlni not documented in any of these reports</i>
<b>_dniRO</b>	-	<b>hyd</b>	- <i>Hyd not documented in any of these reports</i>
<b>_dniU0</b>	database	<b>multiple</b>	<b><a href="http://www.ecy.wa.gov/programs/eap/lakes/aquaticplan">http://www.ecy.wa.gov/programs/eap/lakes/aquaticplan</a></b> <i>Online database describes all Ecology's survey efforts. Jenifer P. is sending the actual data</i>
<b>_dniU0</b>	database	<b>zemu</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>
<b>_dniU0</b>	database	<b>brel</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>
<b>_dniU0</b>	database	<b>hyd</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>
<b>_dniU0</b>	database	<b>spar</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Information on Spartina in Washington, beginning in 1990, as compiled by the USGS in a national database which tracks freshwater species.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>_dniU0</b>	database	<b>tun</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Information on tunicates in Washington, beginning in 1998, as compiled by the USGS in a national database which tracks freshwater species.</i>
<b>_dniU0</b>	database	<b>vlni</b>	<b><a href="http://nas.er.usgs.gov/queries/washington/default3.asp">http://nas.er.usgs.gov/queries/washington/default3.asp</a></b> <i>Washington subset of national database which tracks freshwater species. Pam presented on this site to WISC in spring 2009.</i>
<b>_dniU0</b>	none	<b>caul</b>	- <i>See <a href="http://vmp.bioe.orst.edu/default.aspx">http://vmp.bioe.orst.edu/default.aspx</a></i>
<b>_dniU0</b>	none	<b>spar</b>	- <i>Any results from volunteer monitoring program, described at <a href="http://vmp.bioe.orst.edu/default.aspx">http://vmp.bioe.orst.edu/default.aspx</a></i>
<b>_dniU0</b>	none	<b>tun</b>	- <i>See <a href="http://vmp.bioe.orst.edu/default.aspx">http://vmp.bioe.orst.edu/default.aspx</a></i>
<b>_dniU0</b>	online report	<b>tun</b>	<b><a href="http://www.reef.org/db/reports/dist/species/PAC/196/19">http://www.reef.org/db/reports/dist/species/PAC/196/19</a></b> <i>Ciona savignyi reports- sightings in region 1996-current; listed by location and number of sightings</i>
<b>_dniU0</b>	online report	<b>tun</b>	<b><a href="http://www.reef.org/db/reports/dist/species/PAC/195/19">http://www.reef.org/db/reports/dist/species/PAC/195/19</a></b> <i>Didemnum reports- sightings in region 1996-current; listed by location and number of sightings</i>
<b>_dniU0</b>	report	<b>tun</b>	<b><a href="http://www.reef.org/db/reports/dist/species/PAC/194/19">http://www.reef.org/db/reports/dist/species/PAC/194/19</a></b> <i>Styela clava reports- sightings in region 1996-current; listed by location and number of sightings</i>
<b>_dniX0</b>	Filemaker spray records	<b>knap</b>	<b>no files</b> <i>Data on target plants in spray zone, each zone may include multiple species. ~ 1,000 records annually in Puget Sound with begin. and end. mileposts. Data not shared.</i>
<b>_dniX0</b>	Filemaker spray records	<b>phrag</b>	<b>none</b> <i>Listing of target plants in spray zone, each zone may include multiple species. ~ 1,000 records annually in Puget Sound with beginning and ending mileposts.</i>
<b>23 records</b>			
<b>D002</b>	herbarium records	<b>knap</b>	<b>Giblin-knapweed.doc</b> <i>UW Herbarium records of knapweed presence, 1923-2007.</i>
<b>D003</b>	herbarium record	<b>phrag</b>	<b>Giblin-phragmites.doc</b> <i>UW Herbarium records of phragmites presence, 1892-2005.</i>
<b>D004</b>	herbarium records	<b>spar</b>	<b>Giblin-spartina.doc</b> <i>UW Herbarium records of Spartina presence, 1902-2005.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>D006</b>	herbarium records	<b>breI</b>	<b>Giblin-elodea.doc</b> <i>UW Herbarium records of Brazilian elodea presence, 1994-2006 (1994 with J. Parsons).</i>
<b>D007</b>	herbarium record	<b>hyd</b>	<b>Giblin-hydrilla.doc</b> <i>UW Herbarium records of hydrilla presence, 1995, 2002 (with J. Parsons).</i>
<b>D010</b>	map of coverage	<b>knap</b>	<b>Top Weeds per Island Map E_Size.pdf</b> <i>Pdf map of 2007 knapweed survey data on Lopez, Orcas, and San Juan Islands.</i>
<b>D010b</b>	image - aerial extent	<b>spar</b>	<b>Spt_survey_2008 copy.jpg</b> <i>Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.</i>
<b>D010c</b>	images	<b>spar</b>	<b>Spt_survey_Wescott_marsh_2008.jpg</b> <i>Aerial images showing Spartina patches observed, patch size, and survey coverage, in Westcott Bay on San Juan Island.</i>
<b>D012</b>	spreadsheet - xls	<b>nutr</b>	<b>Puget Sound Nutria Take.xls</b> <i>Locations where USDA has trapped or shot nutria, with dates and numbers of nutria taken. Data are at county scale to avoid disclosing identity of those requesting</i>
<b>D013</b>	map of single population	<b>knap</b>	<b>SkagitCoKnapweed.pdf</b> <i>Map from assessor's database showing one knapweed location in Skagit County (Sharp's corner in Anacortes, by Hart Lake, along Hwy 20). B. Rogers says others are</i>
<b>D016</b>	spreadsheet	<b>knap</b>	<b>Knapweed Data for Cascadia.xls</b> <i>Locations (addresses and some lat/long) where knapweed notices have been issued in Pierce County. They are updating database to incorporate habitat and</i>
<b>D017</b>	spreadsheet - xls	<b>phrag</b>	<b>Fort Casey - list of plants in park - 2003.xls</b> <i>Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>
<b>D018</b>	spreadsheet - xls	<b>multiple</b>	<b>WSPRC Plant survey info.xlsx</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Priority species were found at 7 of 56 parks surveyed in the Puget sound.</i>
<b>D019</b>	lat/long and coverage	<b>knap</b>	<b>NPS_Knapweed.xls</b> <i>Description of one knap population in Olympic NP with estimated location and extent; has been present since before 2002 and may be treated in 2011.</i>
<b>D020</b>	spreadsheet - xls	<b>spar</b>	<b>Spartina Spray Records.xls (1997-2008; no 2001)</b> <i>Records describing where spraying for spartina conducted (mostly or just in Snohomish County) and with what partners.</i>
<b>D024</b>	spreadsheet	<b>tun</b>	<b>Washington State invasive tunicates Gretchen Lambert</b> <i>Tunicate survey data from Lambert &amp; Lambert shown in Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates, plus other diver data</i>
<b>D026</b>	distribution map	<b>breI</b>	<b>Brazilian_elodea_dmap2003.pdf</b> <i>Map of Brazilian elodea distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU Extension, and</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>D027</b>	distribution map	<b>knap</b>	<b>Brown_knap_dmap2003.pdf</b> <i>Map of brown knapweed (C. jacea) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU</i>
<b>D028</b>	distribution map	<b>knap</b>	<b>Black_knap_dmap2003</b> <i>Map of black knapweed (C. nigra) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU</i>
<b>D029</b>	distribution map	<b>knap</b>	<b>Diffuse_knap_dmap2003</b> <i>Map of diffuse knapweed (C. diffusa) distribution in WA state, noting extent of reported infestations. Data compiled from county noxious weed control board staff, WSU</i>
<b>D030</b>	Observations with mile marker locations	<b>knap</b>	<b>Spotted Knapweed Locations.xls</b> <i>Data on mile markers where spotted knapweed found &amp; controlled. Locations primarily verbally documented, and are mostly on East side of park (not in PS).</i>
<b>D032</b>	excell spreadsheet	<b>ZEMU</b>	<b>WDFW Current Artificial Substrates&amp;Plankton Sites, W</b>
<b>D033</b>	csv	<b>nutr</b>	<b>nutria_obs.csv</b> <i>UW students have collected data in 10 places around state where nutria are established.</i>
			<b>82 records</b>
<b>G002b</b>	shapefile	<b>vlni</b>	<b>G002b (june2010.shp)</b> <i>Shapefile of variable leaf milfoil locations in Clear Lake, Thurston County. Shapefile does not show Blue Lake, but R. Johnson says it is solidly infested.</i>
<b>G006b</b>	shapefile	<b>knap</b>	<b>G006b (Weed_Lines08.shp)</b> <i>Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.</i>
<b>G006c</b>	shapefile	<b>knap</b>	<b>G006c.shp (Weeds_Points_08.shp)</b> <i>Shapefile showing no knapweed was observed during surveys of invasives on Waldron, Shaw, Stuart, and Decatur Islands in 2008.</i>
<b>G016</b>	shapefile	-	<b>(renoxiousweedspatialdata.zip)</b> -
<b>G017</b>	shapefile	<b>knap</b>	<b>G017.shp (Spotted Knapweed selection 1999.shp)</b> <i>Shapefile of spotted knapweed in Lewis County.</i>
<b>G018</b>	shapefile	<b>spar</b>	<b>G018.shp</b> <i>Shape file showing Spartina population status Sound-wide as of 2008. Categories shown are monitored/eradicated, 1 acre or less, 1 to 5 acres, 6-50 acres, &gt; 50 acres.</i>
<b>G019</b>	shapefile	<b>phrag</b>	<b>G019.shp</b> <i>Shapefile of non-native phragmites in Washington, compiled by G. Haubrich (WSDA Phragmites Survey Results)</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G020</b>	shapefile	<b>phrag</b>	<b>G020.shp (from invasivespeciescouncil.shp)</b> <i>Shapefile of phragmites in Thurston County. Also see <a href="http://www.co.thurston.wa.us/tcweeds/special-projects.htm">http://www.co.thurston.wa.us/tcweeds/special-projects.htm</a></i>
<b>G021</b>	shapefile	<b>knap</b>	<b>G021.shp</b> <i>Shapefile of knapweed in Thurston County.</i>
<b>G022</b>	shapefile	<b>knap</b>	<b>G022.shp (from ONF_knapweeds.shp)</b> <i>Shapefile of knapweed in Olympic National Forest, from surveys conducted 1997-2003. Now in treatment phase.</i>
<b>G023</b>	shapefile	<b>knap</b>	<b>G023.shp (from ceja.shp)</b> <i>Shapefile of meadow knapweed in Clallam County. Have lots of meadow knapweed. Hotspots are W. of Port Angeles, Olympic Hot Springs Road, behind Sequim in Burnt</i>
<b>G024</b>	shapefile	<b>knap</b>	<b>G024.shp (from spottedknapweed.shp)</b> <i>Shapefile of spotted knapweed in Clallam County. Have limited spotted knapweed.</i>
<b>G025</b>	shapefile	<b>phrag</b>	<b>G025.shp (from InvasiveCouncilWeeds_08_09.shp)</b> <i>Shapefile of phragmites in King County in 2008-2009, with information on presence, area, cover class, and habitat type.</i>
<b>G026</b>	shapefile	<b>brcl</b>	<b>G026.shp</b> <i>Shapefile showing Brazilian elodea observed in King County 2008-2009, with information on presence, area, cover class, and habitat type.</i>
<b>G027</b>	shapefile	<b>knap</b>	<b>G027.shp (from InvasiveCouncilWeeds_08_09.shp)</b> <i>Shapefile of knapweed in King County, 2008-2009, with information on presence, area, cover class, and habitat type.</i>
<b>G028</b>	shapefile	<b>knap</b>	<b>G028.shp</b> <i>Shapefile of knapweed on San Juan, Lopez, and Orcas Islands in 2007 from San Juan Public Works. Species codes are cenmac, cenpra, and censto.</i>
<b>G029</b>	shapefile	<b>knap</b>	<b>G029.shp (from meadow knapweed.shp)</b> <i>Shapefile of meadow knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Two large infestations on W. Valley Rd.</i>
<b>G031</b>	shapefile	<b>knap</b>	<b>G031.shp (from spotted knapweed.shp)</b> <i>Shapefile of spotted knapweed in Jefferson County. Populations noted by points, size not estimated. Federal lands not covered. Spotted knapweed is popping up along</i>
<b>G032</b>	shapefile	<b>phrag</b>	<b>G032.shp (from misc species_mod.shp)</b> <i>Shapefile of phragmites in Jefferson County, showing one site mapped along SR 104.</i>
<b>G033</b>	shapefile	<b>knap</b>	<b>G033.shp (from mis species_mod.shp)</b> <i>Shapefile of big head knapweed in Jefferson County (a few sites). Populations noted by points, size not estimated. Federal lands not covered.</i>
<b>G034</b>	shapefile	<b>knap</b>	<b>G034.shp</b> <i>Knapweed sightings along roadsides in Gifford Pinchot NF in the Lewis County portion of the Nisqually Watershed in 2005-2007. B. Wamsley expects data is just</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G035</b>	shapefile	<b>hyd</b>	<b>G035.shp (from pl_all_points.shp)</b> <i>Shapefiles for each year that hydrilla was present (2003-2006) since King County took over eradication efforts at Pipe &amp; Lucerne Lakes. Hydrilla has been absent for 3 yrs in</i>
<b>G036</b>	shapefile	<b>brcl</b>	<b>G036.shp</b> <i>Shapefile on Brazilian elodea presence in lakes basin wide, collected by J. Parsons of Ecology in surveys.</i>
<b>G037</b>	shapefile	<b>hyd</b>	<b>G037.shp</b> <i>Data on hydrilla presence in Pipe &amp; Lucerne Lakes, from J. Parsons surveys.</i>
<b>G038</b>	shapefile	<b>vlni</b>	<b>G038.shp</b> <i>Shapefile showing most lakes in Puget Sound with variable leaf milfoil, as collected by J. Parsons in cooperation with others working on eradication in these lakes.</i>
<b>G039</b>	shapefile	<b>phrag</b>	<b>G039.shp (from D8_DOE_write 1-19 rpt_KAS.xls, G0_wr</b> <i>Shapefile of phragmites data collected by J. Parsons of Ecology in surveys.</i>
<b>G040</b>	shapefile	<b>knap</b>	<b>mbs_knapweed_2010_not_kittitas.shp</b> <i>Knapweed locations documented in Mt Baker-Snoqualmie NF from 1997-2008. Data were provided by many people to L. Martin, in many cases "with a scribble on a map</i>
<b>G041</b>	shapefile	<b>gymo</b>	<b>G041.shp (AGMDetectionsArchiveWSDA.shp)</b> <i>Shapefile showing all Asian gypsy moth detections recorded via WSDA survey efforts from 1972 - present day.</i>
<b>G042</b>	shapefile	<b>gymo</b>	<b>G042.shp (GMDetects_07_09.shp)</b> <i>Shapefile showing all European gypsy moth detections via WSDA survey efforts from 2007, 2008, and 2009.</i>
<b>G043</b>	shapefile	<b>gymo</b>	<b>G043.shp (GypsyMoth_WSDA2007.shp)</b> <i>Shapefile showing all WSDA trap placements statewide, 2007.</i>
<b>G044</b>	shapefile	<b>gymo</b>	<b>G044.shp (GypsyMoth_WSDA2008.shp)</b> <i>Shapefile showing all WSDA trap placements statewide, 2008.</i>
<b>G045</b>	shapefile	<b>gymo</b>	<b>G045.shp (GypsyMoth_WSDA2009.shp)</b> <i>Shapefile showing all WSDA trap placements statewide, 2009.</i>
<b>G046a</b>	shapefile	<b>knap</b>	<b>G046a.shp (from knapweed.gdb)</b> <i>Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase</i>
<b>G046b</b>	shapefile	<b>knap</b>	<b>G046b.shp (from knapweed.gdb)</b> <i>Knapweed distribution on the Swinomish reservation. Knapweed is "heavy in some places." Data do not distinguish between knapweed species. Geodatabase</i>
<b>G047a</b>	shapefile	<b>spar</b>	<b>G047a.shp (Spartina.shp)</b> <i>Polygon of S. anglica distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G047b</b>	shapefile	<i>spar</i>	<b>G047b.shp (Spartina_Isolated.shp)</b> <i>Point file of S. anglica distribution on Swinomish reservation. Overall, Spartina is widespread, though density has decreased with control efforts.</i>
<b>G048</b>	shapefile	<i>spar</i>	<b>G048.shp (Survey_Coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.</i>
<b>G049</b>	shapefile	<i>spar</i>	<b>G049.shp (XYIsland.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island County in 2009.</i>
<b>G050</b>	shapefile	<i>spar</i>	<b>G050.shp (Survey_Coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.</i>
<b>G051</b>	shapefile	<i>spar</i>	<b>G051.shp (XYSanJuan.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in San Juan County in 2009.</i>
<b>G052</b>	shapefile	<i>spar</i>	<b>G052.shp (Survey_coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.</i>
<b>G053</b>	shapefile	<i>spar</i>	<b>G053.shp (XYSkagit.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2009.</i>
<b>G054</b>	shapefile	<i>spar</i>	<b>G054.shp (survey_coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.</i>
<b>G055</b>	shapefile	<i>spar</i>	<b>G055.shp (XYWhatcom.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Whatcom County in 2009.</i>
<b>G056</b>	shapefile	<i>spar</i>	<b>G056.shp (2008Survey_coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and Whatcom Counties in 2008.</i>
<b>G057</b>	shapefile	<i>spar</i>	<b>G057.shp (2008_Spartina_data.shp)</b> <i>Shapefile showing location and sizes of Spartina clones found in surveys conducted by People for Puget Sound kayak volunteers in Island, San Juan, Skagit, and</i>
<b>G058</b>	shapefile	<i>spar</i>	<b>G058.shp (2007_survey_coverage.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.</i>
<b>G059</b>	shapefile	<i>spar</i>	<b>G059.shp (2007_Spartina_data.shp)</b> <i>Shapefile showing coverage of Spartina surveys conducted by People for Puget Sound kayak volunteers in Skagit County in 2007.</i>
<b>G060</b>	shapefile	<i>spar</i>	<b>G060.shp (SpartinaPS2009Sites.shp)</b> <i>Data from statewide Spartina surveys and treatment in 2009.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G061</b>	shapefile	<b>knap</b>	<b>G061.shp (Nox_weeds09.shp)</b> <i>Shapefile of knapweed distribution on San Juan Islands.</i>
<b>G062</b>	shapefile	<b>knap; spar</b>	<b>Select_WSP_Vegetation_Polygons.shp, etc.</b> <i>Data collected by URS on behalf of WSPRC</i>
<b>G063</b>	shapefile	<b>knap</b>	<b>FederationForest.shp, etc.</b> <i>Data collected by Pacific Biodiversity Institute for WSPRC. Knapweed noted as Uncommon in specific plant associations in Federation Forest State Park during</i>
<b>G064</b>	shapefile	<b>knap</b>	<b>NisquallyMashel.shp, etc.</b> <i>Data collected by LYRA Biological for WSPRC. Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers</i>
<b>G065</b>	shapefile	<b>spar</b>	<b>Dosewallips.shp, etc.</b> <i>Collected by Pacific Biodiversity Institute for WSPRC. Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips</i>
<b>G066</b>	shapefile	<b>phrag</b>	<b>Whidbey.shp, etc.</b> <i>Data collected by Kathryn Beck and Joseph Arnett for WSPRC. Phragmites observed at Fort Casey State Park in 2003 during vegetation surveys.</i>
<b>G067</b>	shapefile	<b>tun</b>	<b>Point_ge.shp, etc.</b>
<b>G068</b>	shapefile	<b>spar</b>	<b>G068.shp</b> <i>Spartina found on San Juan, Lopez, Orcas, and Decatur Islands.</i>
<b>G069</b>	shapefile	<b>knap</b>	<b>G069.shp</b> <i>shapefile created from data included in emails D009</i>
<b>G070</b>	shapefile	<b>knap</b>	<b>G070.shp (from Whatcom knapweeds 2010.xls)</b> <i>Locations where ongoing monitoring is occurring of about 300 spotted knap, 200 meadow knap sites. L Baldwin says "some far-flung sites, e.g., Newhalem, not</i>
<b>G071</b>	abundance and recruitment data	<b>tun</b>	<b>G071.shp</b> <i>Data on Styela clava abundance and recruitment at Pleasant Harbor Marina (abundance data for 2005, 2007-8 forthcoming). E. Grey notes that WDFW attempted</i>
<b>G072</b>	shapefile	<b>knap</b>	<b>G072.shp (from 2009.xls)</b> <i>Locations of noxious weeds in Kitsap County. Only one knapweed site noted, at Olalla Valley Rd in Port Orchard.</i>
<b>G073a</b>	spreadsheet - xls	<b>knap</b>	<b>G072.shp</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Knapweed found in 4 of 56 parks surveyed</i>
<b>G073b</b>	spreadsheet - xls	<b>spar</b>	<b>G073.shp</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G073c</b>	spreadsheet - xls	<b>phrag</b>	<b>G073.shp</b> <i>Notes which parks in Puget Sound were surveyed, and where priority species found. Spartina found in 1 of 56 parks surveyed</i>
<b>G075</b>	shapefile	<b>phrag</b>	<b>G075.shp</b> <i>Location of treatment of an ~250 sq. ft. population of phragmites on Whatcom Creek in Bellingham, at bridge on Holly Street (N48 45.223 W122 29.020).</i>
<b>G076a</b>	online report	<b>tun</b>	<b>G076a</b> <i>All tunicate sightings in REEF's Washington database (176 records). Sightings from a given survey share a form number. Both novice and expert data are included.</i>
<b>G076b</b>	online report	<b>tun</b>	<b>G076b.shp</b> <i>All Type 2 and Type 3 REEF surveys conducted since 4/1/2006 in WA in REEF's database (REEF surveys have been conducted since 1998, tunicates were added in</i>
<b>G077a</b>	shapefile	<b>knap</b>	<b>G077a.shp (Knapweed_phragmites.xlsx)</b> <i>Knapweed observed in WSDOT right-of-way. WSDOT focuses on reoccurring infestations which are at least 2-3 years old to minimize overlap with County efforts</i>
<b>G077b</b>	shapefile	<b>phrag</b>	<b>G077b.shp (Knapweed_phragmites.xlsx)</b> <i>Data file describes phragmites observed in WSDOT right-of-way at the Duwamish /1st Ave bridge and on SR 599, noting side of road and mileposts. Points represent</i>
<b>G078</b>	shapefile	<b>vhs</b>	<b>VHSV detections in database.pdf, VHSV detections by</b> <i>Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not</i>
<b>G079</b>	spatial	<b>PHRAG</b>	<b>Seattle_Public_Lands_Survey.mdb</b> <i>SUN mapped types of vegetation in Seattle parks, green belts, and other open spaces. Digitized habitat region delineations for use in GIS. Of WISC 15 priority</i>
<b>G080</b>	shapefiles	<b>wbb</b>	
<b>G080a</b>	shapefile	<b>wbb</b>	<b>G080a_EmeraldAshBorer2009</b>
<b>G080b</b>	shapefile	<b>wbb</b>	<b>G080b_EWBIS_2009Survey</b>
<b>G080c</b>	shapefile	<b>wbb</b>	<b>G080c_WAExoticPinePest200</b>
<b>G081</b>		<b>nutr</b>	<b>G081</b> <i>Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.</i>
<b>G082</b>		<b>knap</b>	<b>G082</b>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>G083</b>		<b>KNAP</b>	<b>G083</b>
<b>G084</b>	<b>geodatabase</b>	<b>tun</b>	<b>2005_2007WDFWTahuyaSurveys</b> <i>The layer WDFWTahuyaSurvey2005 contains records showing the positions of all of the transects that were completed during the October, 2005 survey of the Tahuya</i>
<b>G085a</b>	<b>Shapefile</b>	<b>ZEMU</b>	
<b>G086</b>	<b>shapefile</b>	<b>brel</b>	<i>Observation of brel near pond on Turn Point, east shore of San Juan Island.</i>
<b>G087</b>		<b>nutr</b>	<i>Shapefile from UW students' spreadsheet of public sightings from a response network (sightings reported by phone or email).</i>
<b>7 records</b>			
<b>I001</b>	<b>image</b>	<b>brel</b>	<b>Sammr_egeden_worststretch09.JPG, P1010040.JPG, P</b> <i>Photos from informal surveys for Brazilian elodea on Sammamish River (AKA Sammamish Slough), conducted by K. Messick of King County.</i>
<b>I002</b>	<b>image</b>	<b>hyd</b>	<b>IMGP0821.JPG, DSCN1486.JPG, SCUBA 6_24 3.JPG</b> <i>Photos from King County of hydrilla eradication program (informational sign, project divers) in Pipe Lake.</i>
<b>I003</b>	<b>image</b>	<b>spar</b>	<b>P5220019.jpg, P5220020.jpg</b> <i>Photograph of Spartina observed on the way to Camano Island.</i>
<b>I004</b>	<b>image</b>	<b>phrag</b>	<b>IMG_7155.jpg, P9080012.jpg</b> <i>Photograph of "phragmites island" right off University of Washington in Lake Washington, located at 47° 39' 11.74N 122° 17' 47.34W.</i>
<b>I005</b>	<b>image</b>	<b>nutr</b>	<b>KAS to complete</b> <i>Photographs of nutria observed near University of Washington in May 2008, at 47° 39' 13.58N 122° 17' 46.63W.</i>
<b>I006</b>	<b>image</b>	<b>phrag</b>	<b>IMG_6184.jpg IMG_6178.jpg</b> <i>Photographs of phragmites on Whatcom Creek in Bellingham which was treated by L. Baldwin. First photographed 2006. Treated 9/23/09. Appeared to still be present 2/10.</i>
<b>I007</b>	<b>image</b>	<b>tun</b>	<b>http://nwgeogirl.smugmug.com/Invasive-Tunicates</b> <i>Photographs of the three invasive tunicates.</i>

**9 records**

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>O001</b>	anecdotal report	<b>spar</b>	<b>none</b> <i>Anecdotal communication that Spartina was observed on Vashon Island several years ago.</i>
<b>O002</b>	image	<b>nutr</b>	<b>washington_nutria.jpg</b> <i>Map of nutria distribution in certain regions of Puget Sound. Distributions are from T. Sheffels surveys of WDFW fish and wildlife biologists for best guess estimates.</i>
<b>O003</b>	anecdotal report	<b>nutr</b>	<b>none</b> <i>UW and USDA Wildlife Services trapped over 200 nutria on about 40 acres around the University of Washington in 2009. More details under Programs.</i>
<b>O004</b>	image	<b>vlni</b>	<b>O4_Florence Sep 09.jpg</b> <i>Image of variable leaf milfoil presence within Florence Lake, based on J. Parsons GIS files.</i>
<b>O007</b>	anecdotal report	<b>spar</b>	<b>N/A</b> <i>Anecdotal communications that Spartina has been observed in Discovery Bay (C. Lucero) and at the mouth of the Dosewallips River (E. Dixon), both in Jefferson</i>
<b>O008</b>	anecdotal report	<b>brel</b>	<b>no file</b> <i>Anecdotal reports of Brazilian elodea in Lake Leland in Jefferson County from C. Lucero and E. Dixon.</i>
<b>O009</b>	anecdotal report	<b>brel</b>	<b>Katie Messick on elodea in KC.doc</b> <i>Brel presence in Lake Dolloff, Sammamish Slough/River, Lake Sammamish, Lake WA, Ship Canal, Lake Union. Haven't seen brel in smaller lakes.</i>
<b>O010</b>	hardcopy trap records	<b>gymo</b>	<b>none</b> <i>Data files from WSDA surveys 1972-2006 are in paper forms, with addresses but no qps coordinates for the ~25,000 traps set annually. All detections are shown in G41</i>
<b>O012</b>	poster	<b>tun</b>	<b>REEFGBPS2009.pdf</b> <i>Poster on REEF's survey and education efforts, showing data collected to date, presented at Puget Sound Georgia Basin conference.</i>
			<b>11 records</b>
<b>P001</b>	management report	<b>nutr</b>	<b>NutriaManagementResearch in PNW.pdf</b> <i>Report summarizing the status of nutria in Washington and Oregon, as well as management options.</i>
<b>P002</b>	annual report	<b>spar</b>	<b>WSDASpartinaReport2007.pdf, hard copies of 2008 &amp; 2009</b> <i>Annual reports to the Legislature on Spartina control with information on acreage, distribution, eradication efforts, partners, etc. Recieved DRAFT of 2008, 2009 reports</i>
<b>P003</b>	peer-reviewed lit on survey	<b>tun</b>	<b>Grey 2008.pdf</b> <i>Peer-reviewed paper describing surveys of marine docks for invasive tunicates. Did not observe Didemnum or C. savignyi, found S. clava at one site. See</i>
<b>P004a</b>	annual report	<b>gymo</b>	<b>GM Summary Report.pdf</b> <i>WSDA's annual report on gypsy moth surveys. See also at <a href="http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports">http://agr.wa.gov/plantsinsects/insectpests/GypsyMoth/#SummaryReports</a></i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>P004b</b>	powerpoint describing program	<b>gymo</b>	<b>GM Survey.pdf</b> <i>WSDA presentation on gypsy moth surveys.</i>
<b>P005</b>	report	<b>knap</b>	<b>Birch Bay SP Vegetation Survey.pdf</b> <i>Report describing mapped observations of knapweed in Birch Bay State Park during vegetation surveys in 2008.</i>
<b>P006</b>	report	<b>knap</b>	<b>Federation Forest - veg assoc and rare plant report - 20</b> <i>Report noting knapweed as Uncommon in specific plant associations in Federation Forest State Park during vegetation surveys in 2005.</i>
<b>P007</b>	report	<b>knap</b>	<b>Final Lake Isabella SP.pdf</b> <i>Report describing knapweed as located along the northern pastures of Lake Isabella State Park during vegetation surveys in 2009.</i>
<b>P008</b>	report	<b>knap</b>	<b>Final Nisqually.pdf</b> <i>Report describing a few scattered individual knapweeds observed on the floodplains of the Nisqually and Mashel Rivers during vegetation surveys in Nisqually-Mashel</i>
<b>P009</b>	report	<b>spar</b>	<b>Deception Pass SP - Vegetation Survey Report.pdf</b> <i>Description of Spartina around Cornet Bay in Deception Pass State Park as observed in vegetation surveys in 2008-2009. The Spartina was mapped and a treatment plan</i>
<b>P010</b>	report	<b>spar</b>	<b>Dosewallips - veg assoc and rare plant report.doc</b> <i>Description of Spartina presence in the intertidal zone, with less than 0.2 acres of infestation, at Dosewallips State Park, as observed in vegetation surveys in 2005.</i>

20 records

<b>R005</b>	report	<b>breI</b>	<b>08 Report_Clear Beaver Lakes.pdf, 2009 Year End Rep</b> <i>2008 Annual Report on management of other invasives in these Skagit County lakes references one small, floating, dead patch of Brazilian elodea on Beaver Lake; 2009</i>
<b>R006</b>	report	<b>breI</b>	<b>2008 Lone Lake Egeria Eradication Project.doc</b> <i>Annual report on Brazilian elodea eradication efforts and detailed water quality observations in Lone Lake, Island County; submitted to Ecology.</i>
<b>R007</b>	press	<b>breI</b>	<b>KentReporterArticle_6408.pdf</b> <i>News article on the presence and management of Brazilian elodea in Lake Fenwick in Kent.</i>
<b>R008</b>	report	<b>hyd</b>	<b>FPE-G0300219.doc</b> <i>Annual report information submitted to Ecology on Pipe &amp; Lucerne Lake hydrilla eradication.</i>
<b>R009</b>	report	<b>hyd</b>	<b>HydrillaApr09_Oct09.doc</b> <i>Most recent annual report submitted to Ecology on Pipe &amp; Lucerne Lake hydrilla eradication from King County.</i>
<b>R010a</b>	report	<b>hyd</b>	<b>Hydrilla Reports from KC email.pdf</b> <i>Annual hydrilla eradication reports '03-'07 online at <a href="http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx">http://www.kingcounty.gov/environment/waterandland/lakes/documents.aspx</a>.</i>

<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>R010b</b>	report	<b>hyd</b>	<b>2008_Annual_Report.pdf</b> <i>Annual hydrilla eradication report from 2008 (was not yet online at time of data collection).</i>
<b>R011</b>	biennial report to legislature	<b>tun</b>	<b>WDFW2009.pdf</b> <i>Biennial report which describes 100 sites surveyed for tunicates, with 31 sites containing one of the three invasive species, and count data at specific sites. Have</i>
<b>R012</b>	report	<b>tun</b>	<b>CohenetalRapidAssessment1998.pdf</b> <i>Surveys conducted of harbors, marinas, and natural areas in 1998, for invasive species including tunicates. Appendix 6 (page 33) summarizes findings with respect to</i>
<b>R013</b>	grant report	<b>vlni</b>	<b>Milfoil Grant Report - Oct 30.doc</b> <i>Semi-annual grant report on management and current status of variable leaf milfoil in Blue, Clear (Thurston Co.), and Josephine Lakes.</i>
<b>R014</b>	progress report	<b>tun</b>	<b>Pleasant Harbor Report.doc</b> <i>Report on S. claya removal in Blaine, Pleasant Harbor, and Neah Bay.</i>
<b>R015</b>	report	<b>tun</b>	<b>PSAT2007.pdf</b> <i>Report from the Puget Sound Action Team summarizing the state's response to non-native tunicates. Includes several data sets (R23, R24, D24).</i>
<b>R016</b>	report from database	<b>vhs</b>	<b>VHSV detections in database.pdf, VHSV detections by</b> <i>Report from NWIFC's fish health database, with all VHS type Iva detections since 1989 from NWIFC, WDFW, and USFWS. First two detections were in 1988 (not</i>
<b>R017</b>	annual management reports	<b>brei</b>	<b>Final Report Big Lake 2002 Final.pdf, Big Lake Survey 2</b> <i>Series of annual reports from Big Lake Management district in Skagit County on surveys and treatment for Brazilian elodea from 2002-2009. Appears not to be present</i>
<b>R018</b>	report	<b>vlni</b>	<b>G0900241 Variable leaf milfoil eradication.doc</b> <i>Grant agreement between Ecology and Pierce County Noxious Weed Board for eradication and management of variable-leaf milfoil in Blue, Clear, and Florence lakes.</i>
<b>R021</b>	spreadsheet - xls	-	<b>Upland Spray Reports, many (20+)</b> <i>folder of spray records 1999-2008</i>
<b>R023</b>	project report	<b>tun</b>	<b>Ciona report.doc</b> <i>Report on C. savignyi, same as Appendix 3 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>
<b>R024</b>	report	<b>tun</b>	<b>Washington State invasive tunicate survey for WDFW.d</b> <i>Report summarizing survey data included in D24, similar to Appendix 4 of Washington State's Response to an Invasion of Non-Native Tunicates.</i>
<b>R025</b>	report	<b>tun</b>	<b>hoodcanal_hb1896.pdf</b> <i>This report describes tunicates observed during surveys to document geoduck populations. Divers noted high abundance of tunicates in the Tahuya River delta in</i>
<b>R026</b>	report	<b>nutr</b>	<b>Thesis Final.doc</b> <i>Report from UW students' characterization of nutria around Lake Washington and broader areas.</i>

*DataID Data Type Species ID Filename*

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1 records

**U002d** database **nutr** <http://nas.er.usgs.gov/queries/washington/default3.asp>  
*Information on nutria in Washington, beginning in 1935, as compiled by the USGS in a national database which tracks freshwater species.*

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22 records

**X001** - - -  
 -

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**X002** type unknown **brcl** no file  
*S. Horton may have data on Brazilian elodea presence and control efforts on Lone Lake (funded by Ecology).*

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**X003** spreadsheet? **knap** no files  
*D. Heimer may be able to provide data on presence and rough acreage of knapweed in WDFW Wildlife Areas, from surveys managers fill out annually on knapweed*

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**X005** N/A **knap** no files  
*P. Grover may be able to provide data on knapweed in Mason County.*

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**X006** N/A **knap** no files  
*S. Horton may be able to provide data on knapweed in Island County.*

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**X008** unknown **phrag** no file  
*D. Coggon may be able to share data on phragmites in Kitsap County.*

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**X010** unknown **spar** no file  
*S. Horton may be able to provide data on Spartina in Island County.*

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**X011** spreadsheet - xls **spar** no file  
*B. Rogers may be able to share GPS points of Spartina in Skagit Bay/Fir Island.*

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**X015** report **wbb** no files  
*J. Cena may be able to share data on trap placement and specifics on wood-boring insects that WSDA traps for.*

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**X016** 60 pages hardcopy survey results **wbb** none  
*Data from K. Ripley as follow up on E. LaGasa's surveys in Olympia and Tacoma Ports. Found Xyleborinus alni (family Scolytidae) in ports and neighboring forests.*

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**XG** shapefile? **hyd** no file  
*J. Parsons may be able to share more detailed data on where hydrilla was observed within Pipe & Lucerne Lakes. This may compliment 2003-2006 data from King County*

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**XG** shapefile? **phrag** no file  
*J. Parsons may be able to share more detailed data on phragmites where observed and noted in G39.*

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<i>DataID</i>	<i>Data Type</i>	<i>Species ID</i>	<i>Filename</i>
<b>XG</b>	shapefile?	<b><i>vlni</i></b>	<b>no file</b> <i>J. Parsons may have more detailed data on variable leaf milfoil presence within lakes, similar to the file shown in O4.</i>
<b>XG</b>	shapefile?	<b><i>brel</i></b>	<b>no file</b> <i>J. Parsons may be able to share more detailed data on where Brazilian elodea was observed within specific lakes.</i>
<b>XG</b>	shapefile?	<b><i>phrag</i></b>	<b>-</b> <i>The Nature Conservancy or D. Heimer may be able to share data on phragmites in Port Susan.</i>
<b>XG</b>	shapefile?	<b><i>spar</i></b>	<b>no file</b> <i>D. Heimer may be able to share some historic GIS info on where did control for Spartina.</i>
<b>XG</b>	shapefile?	<b><i>knap</i></b>	<b>no files</b> <i>G. Haubrich collects data on knapweed across the state. See files D27-D29. BAP may have access to underlying shape files or more detailed data through S. MacDouqall.</i>
<b>XG</b>	spreadsheet - xls?	<b><i>spar</i></b>	<b>no file</b> <i>S. Gohrman may be able to share analysis of Spartina data since 1996 to show reductions and status in Snohomish County, work done in partnership with two other</i>
<b>XR022</b>	management plan	<b><i>brel</i></b>	<b>no file</b> <i>Long Lake Management Plan for Brazilian elodea, Kitsap County. D. Coggon referenced but did not share. Also see <a href="http://www.longlakecill.org/">http://www.longlakecill.org/</a></i>
<b>XR024</b>	management plan	<b><i>brel</i></b>	<b>no file</b> <i>Kitsap Lake Management Plan for Brazilian elodea management in Kitsap Lake, Kitsap County. D. Coggon did not share but referenced .</i>
<b>XR026</b>	report	<b><i>knap</i></b>	<b>no files</b> <i>D. Coggon referenced Kitsap County Survey data 1996 on knapweed. Have not been able to locate.</i>
<b>XR027</b>	report	<b><i>phrag</i></b>	<b>no file</b> <i>D. Coggon may be able to share reports on phragmites in Kitsap County.</i>

## REPORT 7B: References by Species

### caul

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Schaffelke1	<i>Introduced macroalgae - a growing concern</i>	2006
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A paper that gives an overview on the mechanism of Caulerpa introduction.

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### caul; spar

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Williams1	<i>The invasive species challenge in estuarine and coastal environments: Marrying management and science.</i>	2008
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They highlight some of the issues that either thwart or facilitate the successful marriage between science and management of introduced species, including the regulatory framework for management. They also use the available information on coastal eradication.

### fesw

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Campbell1	<i>Feral swine damage and damage management in forested ecosystems</i>	2009
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This review paper identifies damage caused by feral swine to forest resources and presents techniques used to prevent and control feral swine damage.

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Coblentz1	<i>Pest risk assessment for feral pigs in Oregon</i>	?
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Assessment of risk and impacts associated with feral pig

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Kaller1	<i>Swine activity alters invertebrate and microbial communities in a Coastal Plain watershed</i>	2006
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Meng1	<i>Wild boars as sources for infectious diseases in livestock and humans</i>	2009
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This article discusses the prevalence and risk of infectious agents in wild boars and their potential transmission to livestock and humans.

### gymp

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McFadden1	<i>An insect out of control? The potential for Spread and establishment of the gypsy moth in new forest areas in the</i>	1991
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Prestemon1	<i>Some Timber Product Market and Trade Implications of an Invasive Defoliator: The Case of Asian Lymantria in the United</i>	2008
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Study concludes that the current ban on softwood log imports from the Russian Far East has little effect on keeping the Gypsy moth out of the region, but recognizes the severe negative impact that could result on the timber trade upon introduction.

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Townsend1	<i>Gypsy moth program summary report</i>	2009
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USDAFS1	<i>Gypsy moth management in the United States: a cooperative approach. Final environmental impact statement.</i>	1995
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Good synthesis of management methods

USOTA1      *Harmful non indigenous species in the United States*      1993

overview of invasives in the US, technical control methods, and institutional management approaches.  
Good info on programmatic standards, invasion trends

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## hyd

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Hershner1      *Managing invasive aquatic plants in a changing system: Strategic consideration of ecosystem services*      2008

This paper analyzes the increasing evidence of ecological services provided by invasive species such as *P. australis* and *H. verticillata* and suggest that, in the face of increasing stress, it may be prudent to take a more pragmatic approach regarding the

KC1      *Pipe and Lucerne Lakes 2008 Hydrilla eradication project*      2008

Update on status of project, annual report

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## knap

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Duncan1      *Assessing the economic, environmental, and societal losses from invasive plants on rangeland and wildlands.*      2004

A literature review conducted to summarize information on environmental, economic, and societal losses caused by 16 key invasive plants on rangeland and wildlands in the United States.

Sheley1      *Distribution, biology, and management of diffuse knapweed (Centaurea diffusa) and spotted knapweed (Centaurea*      1998

An overview of the management of knapweed and analysis regarding the various treatments.

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## kudz

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Bradley2      *Climate change increases risk of plant invasion in the Eastern United States.*      2010

Can contact B. Bradley through G. Haubrich

Callaway1      *Invasive plants versus their new and old neighbors: a mechanism for exotic invasion.*      2000

Forseth1      *Kudzu (Pueraria montana): History, physiology, and ecology combine to make a major ecosystem threat*      2004

A comprehensive analysis of the history and establishment of this highly invasive plant.

Hickman1      *Kudzu (Pueraria montana) invasion doubles emissions of nitric oxide and increases ozone pollution.*      2010

High densities of kudzu can increase ozone levels above regulatory standards. Laila knows author if we want to contact.

Jarnevich1      2009

Supplied by B. Bradley via G. Haubrich

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## mult

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	<b><i>Aquatic invasive species prevention and enforcement program for recreational and commercial watercraft.</i></b>	<b>2007</b>
	<b><i>Washington State Aquatic Nuisance Species Committee.</i></b>	<b>2007</b>
	<b><i>2008-2013 Strategic Plan.</i></b>	<b>2007</b>
	<b><i>Invaders at the Gate: 2008 Strategic Plan.</i></b>	<b>2008</b>
	<b><i>Status and trends in state invasive species policy: 2002-2009.</i></b>	<b>2010</b>
<b>Boersma1</b>		<b>2006</b>
	2-page summaries of distribution, impacts, biology, etc. of a number of invasives in the PNW.	
<b>Cohen1</b>	<b><i>A rapid assessment survey of non-indigenous species in the shallow waters of Puget Sound</i></b>	<b>1998</b>
	Survey over 6 days in Sept 1998 found 39 individual invasive species, focused primarily on non-quantitative or semi-quantitative sampling of dock fouling and taxonomic ID.	
<b>Cohen2</b>	<b><i>An exotic species detection program for Puget Sound</i></b>	<b>2004</b>
	Outlines a program to detect and identify previously undetected exotics	
<b>Colautti1</b>	<b><i>Characterised and projected costs of nonindigenous species in Canada.</i></b>	<b>2006</b>
	Economic analysis of costs of various invasives	
<b>Doelle1</b>	<b><i>Legal and policy responses to invasive species - background paper.</i></b>	<b>2001</b>
	Focuses on national-level policy and international interactions, overall recommended policy approaches.	
<b>Harrington1</b>	<b><i>Meeting the challenge: Invasive plants in Pacific Northwest ecosystems</i></b>	<b>2007</b>
	conference proceedings: "Topics include early detection and rapid response; control techniques, biology, and impacts; management"	
<b>Hellmann1</b>	<b><i>Five potential consequences of climate change for invasive species.</i></b>	<b>2008</b>
	Review of invasion pathway mechanisms and expected relevant impacts of climate change	

<b>Pimental3</b>	<b><i>Update on the environmental and economic costs associated with alien-invasive species in the United States.</i></b>	<b>2005</b>
<b>Pitt1</b>		<b>2007</b>
<b>Rahel1</b>	<b><i>Assessing the effects of climate change on aquatic invasive species.</i></b> Expected impacts of climate change to invasion pathways and successes	<b>2008</b>
<b>Shine1</b>		<b>2000</b>
<b>Waldner1</b>	<b><i>The kudzu connection: Exploring the link between land use and invasive species</i></b> This study establishes a potential nexus between land use planning and biological invasions. The study identifies types of regulatory and non-regulatory tools used by local governments to address invasive species, including bans and ordinances, planning a	<b>2008</b>

## **nutr**

<b>Pyke1</b>	<b><i>Current practices and future opportunities for policy on climate change and invasive species</i></b> This paper argues that the design and implementation of climate-change policy in the United States should specifically consider the implications for invasive species; conversely, invasive-species policy should address consequences for climate change.	<b>2008</b>
<b>Sheffels1</b>	<b><i>Report on nutria management and research in the Pacific NW</i></b> Most comprehensive synthesis of current management and distribution of nutria in PNW	<b>2007</b>

## **phrag**

<b>Burdick1</b>	<b><i>Determinants of expansion for Phragmites australis, common reed, in natural and impacted coastal marshes. Estuaries</i></b> This paper reviews the impacts caused by pure stands of P. australis on the structure and functions of tidal marshes including competitive abilities, physiological tolerance, and expansion.	<b>2003</b>
<b>Havens1</b>	<b><i>Common reed grass, Phragmites australis, expansion into constructed wetlands: Are we mortgaging our wetland future?</i></b>	<b>2003</b>
<b>Jodoin1</b>	<b><i>Highways as corridors and habitats for the invasive common reed Phragmites australis in Quebec, Canada</i></b> A study that analyzed the presence of the common reed in drainage ditches along highways. Several disturbances (de-icing salts, ditch digging and agricultural nitrogen input) favour the development of large common reed colonies along roads, some of them	<b>2008</b>
<b>MaheuGiroux1</b>	<b><i>Mapping the invasive species Phragmites australis in linear wetland corridors</i></b>	<b>2005</b>

## **spar**

	<i>Progress of the 2008 Spartina eradication program.</i>	2009
	<i>Progress of the 2009 Spartina eradication program.</i>	2010
Callaway2	<i>The introduction and spread of smooth cordgrass (Spartina-Alterniflora) in south San-Francisco Bay.</i>	1992
Daehler1	<i>Status, prediction and prevention of introduced cordgrass Spartina spp</i>	1996
Feist1	<i>Expansion rates and recruitment frequency of exotic smooth cordgrass, Spartina alterniflora (Loisel), colonizing unvegetated</i>	2000
Hedge1		2003
Murphy1	<i>Progress of the 2006 Spartina eradication program</i>	2007
Phillips1	<i>Progress of the 2007 Spartina eradication program</i>	2008

## tun

Daniel1	<i>Biological synopsis of the invasive tunicate Didemnum sp.</i>	2007
Grey1	<i>Do we need to jump in? A comparison of two survey methods of exotic ascidians on docks.</i> compares methods for sampling tunicates at docks in Pacific NW.	2009
Herborg1	<i>Forecasting the potential distribution of the invasive tunicate Didemnum vexillum</i> Good methodology paper on pathways. Looks at spatial distribution of the most important transport vectors ( various vessels) and how they predict current D. vexillum occurrence in British Columbia (BC).	2009

Lambert1	<i>Invasive Ascidians in Washington State – Problematic Species and Current Status.</i>	2005
Lambert2	<i>New records of ascidians from the NE Pacific: a new species of Trididemnum, range extension and redescription of Aplidopsis</i>	2003
LeClair1	<i>2007-2009 Biennial Report: Invasive Species Tunicate Response in the Puget Sound Region</i>	2009
PSAT1	<i>Washington State's response to an invasion of non-native tunicates</i>	2007

### vhs

Kocan1		2001
Winton1		2008

Discuss type IVb threat.

### vlni

Thum1	<i>Comparative ecological niche models predict the invasive spread of variable-leaf milfoil (Myriophyllum heterophyllum)</i>	2010
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This paper shows that VLM occurs almost exclusively in "higher order" lakes characterized as large, low elevation systems with relatively high pH, alkalinity and conductivity. The strong association between lake order and VLM invasions suggests that VLM i

### wbb

Haack1	<i>Exotic bark- and wood-boring Coleoptera in the United States: recent establishments and interceptions.</i>	2006
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A paper that analyzes the USDA database for plant pests intercepted at US ports of entry between 1985 and 2000. They found that wood-associated insects were most often intercepted on crating, followed by dunnage and pallets.

### zemu

Fowler1		2007
Karatayev1	<i>Physical factors that limit the distribution and abundance of Dreissena polymorpha (Pall.)</i>	1998

Evaluates effectiveness of Lacey Act, finds that many listed taxa were already present in US when listed, and most continued to spread following listing. Recommends revisions or replacement of L. Act.

A review paper that organizes over 100 years of data from the Former Soviet Union about the zebra mussel. Findings include the tolerance of quagga mussels to low oxygen conditions, optimum temperature, and other physical features of the organism.

# Organizations Working on Priority Species:

# COUNTIES

Organization	Priority Species Targeted	Type of Programs
<b>Conservation District, Clallam County</b>	knap	prevention; detection; education/outreach
	phrag	detection
	spar	education/outreach
<b>Conservation District, Jefferson County</b>	brel	eradication; control; monitoring; education/outreach
<b>Conservation District; Pierce County</b>	brel	control; eradication
<b>King County Lakes Stewardship</b>	hyd	eradication; monitoring
<b>Noxious Weed Control Board, Clallam County</b>	knap	control; monitoring
<b>Noxious Weed Control Board, Island County</b>	knap	prevention; detection; eradication; education/outreach
	brel	prevention; detection; eradication; monitoring; education/outreach
	kudz; vlmi; hyd	prevention; detection; education/outreach
	phrag	detection; education/outreach
	tun	education/outreach
	spar	prevention; detection; eradication; monitoring; education/outreach
<b>Noxious Weed Control Board, Jefferson County</b>	knap; phrag	prevention; detection; eradication; control; monitoring; education/outreach; policy
<b>Noxious Weed Control Board, King County</b>	phrag	control
	knap	control
	brel	prevention; detection; eradication; control; monitoring; education/outreach
	knap; phrag	prevention; detection; eradication; control; monitoring; education/outreach
	spar	prevention; detection; monitoring; education/outreach
	kudz; vlmi; hyd	prevention; detection; education/outreach
<b>Noxious Weed Control Board, Kitsap County</b>	hyd	prevention; detection; monitoring; education/outreach; policy
	vlmi	detection; education/outreach
	kudz	prevention; detection; education/outreach
	brel	control

Organization	Priority Species Targeted	Type of Programs
<b>Noxious Weed Control Board, Kitsap County</b>	knap; spar	prevention; detection; control; monitoring; education/outreach; policy
	phrag	detection; control; monitoring; education/outreach; policy
<b>Noxious Weed Control Board, Lewis County</b>	knap	control; monitoring
	brel; hyd; kudz; vlmi	detection; education/outreach
<b>Noxious Weed Control Board, Mason County</b>	vlmi	prevention; education/outreach
	knap	prevention; detection; eradication; control; education/outreach
	brel; hyd; phrag; spar	prevention; detection; education/outreach
<b>Noxious Weed Control Board, Pierce County</b>	vlmi	eradication; control
	knap	control; education/outreach; enforcement
<b>Noxious Weed Control Board, San Juan County</b>	knap; spar	detection; control; monitoring
	brel; phrag	detection
<b>Noxious Weed Control Board, Skagit County</b>	knap	control
	spar	control; eradication
<b>Noxious Weed Control Board, Snohomish County</b>	spar	prevention; detection; eradication; control; monitoring; education/outreach; funding; policy
	knap	detection; control; monitoring; funding
	kudz	detection; education/outreach
	phrag	prevention; detection; control; monitoring; education/outreach
<b>Noxious Weed Control Board, Thurston County</b>	phrag	prevention; detection; eradication
	spar	prevention; monitoring
	knap	prevention; detection; eradication; control; monitoring; education/outreach
	hyd	prevention
	vlmi	prevention; detection; eradication; control; monitoring
<b>Noxious Weed Control Board, Whatcom County</b>	spar	Eradication; control; detection; education/outreach; monitoring; prevention
	phrag	eradication; control; monitoring; education/outreach
	brel	detection; monitoring; education/outreach
	vlmi	education/outreach

Organization	Priority Species Targeted	Type of Programs
<b>Noxious Weed Control Board, Whatcom County</b>	knap	prevention; detection; eradication; control; monitoring; education/outreach
	hyd	detection; education/outreach
<b>San Juan County Public Works</b>	knap	detection; control; monitoring
<b>Skagit County Public Works</b>	brel	control; monitoring
<b>Snohomish County Surface Water Management</b>	hydr	prevention; education/outreach
	brel	prevention; control; eradication; monitoring
<b>WA Department of Ecology</b>	spar	control; eradication
	vlmi	detection; eradication; control; monitoring; funding
	hyd	detection; eradication; monitoring; funding

## Organizations Working on Priority Species:

## PUGET SOUND BASIN

Orgqanization	Priority Species Targeted	Type of Work
<b>Nahkeeta Northwest</b>	caul; spar; tun	prevention; detection; monitoring; education/outreach
<b>Northwest Indian Fisheries Commission</b>	zemu; tun	prevention; detection; eradication; control; monitoring; education/outreach; funding; policy
	nutr	prevention; detection; control; monitoring
	brel; hyd	prevention; policy
<b>People for Puget Sound</b>	spar	detection; eradication; control; monitoring; education/outreach
<b>Puget Sound Action Team</b>	zemu	detection
<b>Puget Sound Partnership</b>	spar; tun; nutr	prevention; education/outreach
<b>Reef Environmental Education Foundation</b>	tun	detection; monitoring; education/outreach

## Organizations Working on Priority Species:

## STATE-WIDE

Organization	Priority Species Targeted	Type of Program
<b>National Oceanic and Atmospheric Administration</b>	vhs	research
<b>Northwest Indian Fisheries Commission</b>	vhs	detection
<b>Noxious Weed Control Board, Washington State</b>	kudz; vlmi; brel; hyd; knap; spar	education/outreach; funding; policy
<b>Oregon State University</b>	kudz; knap; phrag	education/outreach; policy
<b>Portland State University</b>	nutr	policy
<b>University of Washington</b>	brel	prevention; education/outreach; research
	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar	education/outreach
	brel	education/outreach
	kudz; vlmi; brel; hyd; knap; phrag; spar	detection; education/outreach
	spar	research; funding
<b>US Department of Agriculture</b>	nutr	control
<b>US Fish &amp; Wildlife Service</b>	vhs	detection
	nutr; tun	education/outreach; control; funding
	spar	control; funding; education/outreach
	zemu	prevention; detection; funding; education/outreach
<b>US Geological Survey</b>	zemu; vlmi; brel; hyd; nutr; tun; spar	other: tracking distribution
<b>WA Department of Agriculture</b>	phrag	detection; eradication; control; education/outreach
	wbb	detection; education
	spar	eradication
	knap; phrag	eradication; control; funding
	gymo	detection
	kudz	detection; education/outreach; funding
	knap	detection; eradication; control; funding
<b>WA Department of Ecology</b>	zemu	detection
	phrag	detection; monitoring; funding



Organization	Priority Species Targeted	Type of Program
<b>WA Department of Ecology</b>	brel	detection; control; monitoring; funding; research
<b>WA Department of Fish and Wildlife</b>	spar, phrag	prevention; detection; eradication; control; monitoring; funding; policy; education/outreach; enforcement
	zemu	prevention; detection; education/outreach; policy; enforcement
	vhs	detection
	kudz; vlmi; brel; hyd	prevention; detection
	knap	prevention; detection; control
	caul; tun; zemu	prevention; policy
	nutr	prevention; control; education/outreach
	nutr	prevention; detection; eradication; control; monitoring; education/outreach; enforcement
<b>WA Department of Natural Resources</b>	knap	control; eradication
	brel; spar;	detection; prevention; control; eradication; monitoring; education/outreach; funding
	knap; spar;	detection; prevention; control; eradication; monitoring; education/outreach; funding
	wbb	detection; monitoring; education/outreach; policy
<b>WA Department of Transportation</b>	kudz; brel; hyd	detection; monitoring; education/outreach
	knap; phrag	prevention; detection; eradication; control; monitoring; education/outreach; funding
<b>WA State Parks &amp; Recreation Commission</b>	zemu	prevention; detection; education/outreach
	spar	detection; eradication; control; monitoring
	phrag	detection; ?



Organization	Priority Species Targeted	Type of Program
<b>WA State Parks &amp; Recreation Commission</b>	knap	prevention; detection; eradication; control; monitoring; education/outreach
<b>Washington Conservation Commission</b>	multiple	prevention; detection; eradication; control; education/outreach
<b>Washington Invasive Species Council</b>	multiple	prevention; education/outreach; policy; funding
<b>Washington State University</b>	knap	control; education/outreach; research



Type of Organization	Organization	Priority Species	Type of Data
<b>NGO</b>			
	<b>People for Puget Sound</b>	spar	shapefile
			shapefile
			shapefile
			shapefile
<b>Research</b>			
	<b>Tulane University</b>	tun	peer-reviewed lit on survey
	<b>University of Washington Herbarium, Burke Museum</b>	brel	herbarium records
		phrag	herbarium record
		spar	herbarium records
<b>State</b>			
	<b>WA Department of Agriculture</b>	brel	distribution map
		knap	distribution map
			distribution map
		spar	annual report
			shapefile
			shapefile
	<b>WA Department of Ecology</b>	brel	report
	<b>WA State Parks &amp; Recreation Commission</b>	phrag	spreadsheet - xls
		spar	report

Type of Organization	Organization	Priority Species	Type of Data
<b>County</b>			
	<b>Noxious Weed Control Board, Jefferson County</b>	brel	anecdotal report
		knap	shapefile shapefile shapefile
		phrag	shapefile
		spar	anecdotal report
<b>NGO</b>			
	<b>REEF Environmental Education Foundation</b>	tun	poster
<b>Research</b>			
	<b>Tulane University</b>	tun	abundance and recruitment data peer-reviewed lit on survey
	<b>University of Washington Herbarium, Burke Museum</b>	brel	herbarium records
		spar	herbarium records
<b>State</b>			
	<b>WA Department of Agriculture</b>	brel	distribution map
		spar	annual report shapefile shapefile
	<b>WA State Parks &amp; Recreation Commission</b>		report
<b>Tribe</b>			
	<b>Skokomish Tribe</b>	tun	progress report

Type of Organization	Organization	Priority Species	Type of Data
<b>County</b>			
	<b>King County Lakes Stewardship</b>	hyd	report report shapefile image
	<b>Noxious Weed Control Board, King County</b>	brel	shapefile image anecdotal report
		knap	shapefile
		phrag	shapefile
		spar	anecdotal report
<b>Federal</b>			
	<b>US Department of Agriculture</b>	nutr	spreadsheet - xls
<b>NGO</b>			
	<b>REEF Environmental Education Foundation</b>	tun	poster
<b>Research</b>			
	<b>Portland State University</b>	nutr	image management report
	<b>University of Washington</b>		anecdotal report
	<b>University of Washington Herbarium, Burke Museum</b>	hyd	herbarium record
		phrag	herbarium record

Type of Organization	Organization	Priority Species	Type of Data
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**State**

<b>WA Department of Agriculture</b>	brel	distribution map
	gymo	shapefile
	knap	distribution map
		distribution map
	phrag	shapefile
	spar	annual report
		shapefile
<b>WA Department of Ecology</b>	brel	press
	hyd	shapefile
		report
		report
	phrag	shapefile
<b>WA Department of Transportation</b>		shapefile
<b>WA State Parks &amp; Recreation Commission</b>	knap	report
<b>Washington Sea Grant</b>	nutr	image
	phrag	image

Type of Organization	Organization	Priority Species	Type of Data
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## County

<b>Noxious Weed Control Board, Kitsap County</b>	knap	shapefile
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## State

<b>WA Department of Agriculture</b>	brel	distribution map
	knap	distribution map
	spar	annual report
		shapefile
		shapefile

Type of Organization	Organization	Priority Species	Type of Data
<b>County</b>			
	<b>Noxious Weed Control Board, Lewis County</b>	knap	shapefile
<b>Research</b>			
	<b>Oregon State University</b>	knap	shapefile
<b>State</b>			
	<b>WA Department of Agriculture</b>	brel	distribution map
		knap	distribution map
			distribution map
			distribution map

Type of Organization	Organization	Priority Species	Type of Data
<b>County</b>			
	<b>Noxious Weed Control Board, Pierce County</b>	knap vlmi	spreadsheet grant report
<b>Federal</b>			
	<b>National Park, Mount Rainier</b>	knap	Observations with mile marker locations
<b>Research</b>			
	<b>Portland State University</b>	nutr	management report image
<b>State</b>			
	<b>WA Department of Agriculture</b>	brcl gymo knap phrag	distribution map shapefile distribution map shapefile
	<b>WA Department of Ecology</b>	vlmi	report image shapefile
	<b>WA State Parks &amp; Recreation Commission</b>	knap	report

Type of Organization	Organization	Priority Species	Type of Data
<b>County</b>			
	<b>Noxious Weed Control Board, San Juan County</b>	knap	map of coverage shapefile
		spar	shapefile image - aerial extent images
	<b>San Juan County Public Works</b>	knap	shapefile shapefile shapefile shapefile
<b>NGO</b>			
	<b>People for Puget Sound</b>	spar	shapefile shapefile shapefile shapefile
	<b>REEF Environmental Education Foundation</b>	tun	poster
<b>Research</b>			
	<b>Tulane University</b>	tun	peer-reviewed lit on survey
	<b>University of Washington Herbarium, Burke Museum</b>	brel	herbarium records
<b>State</b>			
	<b>WA Department of Agriculture</b>	knap	distribution map
		spar	shapefile shapefile annual report

Type of Organization	Organization	Priority Species	Type of Data
<b>NGO</b>			
	<b>REEF Environmental Education Foundation</b>	tun	poster
<b>Research</b>			
	<b>Oregon State University</b>	-	spreadsheet - xls
		spar	spreadsheet - xls
	<b>Portland State University</b>	nutr	management report
			image
	<b>University of Washington Herbarium, Burke Museum</b>	phrag	herbarium record
		spar	herbarium records
<b>State</b>			
	<b>WA Department of Agriculture</b>	brel	distribution map
		knap	distribution map
		phrag	shapefile
		spar	annual report
			shapefile
			shapefile
	<b>Washington Sea Grant</b>		image

Type of Organization	Organization	Priority Species	Type of Data
<b>County</b>			
	<b>Noxious Weed Control Board, Pierce County</b>	vlmi	grant report
	<b>Noxious Weed Control Board, Thurston County</b>	knap	shapefile
		phrag	shapefile
		vlmi	shapefile
<b>Research</b>			
	<b>Oregon State University</b>	-	shapefile
	<b>Portland State University</b>	nutr	management report
			image
<b>State</b>			
	<b>WA Department of Agriculture</b>	gymo	shapefile
		knap	distribution map
			distribution map
			distribution map
		phrag	shapefile
	<b>WA Department of Ecology</b>	vlmi	report
			shapefile

Type of Organization	Organization	Priority Species	Type of Data
<b>County</b>			
	<b>Noxious Weed Control Board, Whatcom County</b>	knap	shapefile
		phrag	image shapefile
<b>NGO</b>			
	<b>People for Puget Sound</b>	spar	shapefile
			shapefile
			shapefile
			shapefile
<b>Research</b>			
	<b>Portland State University</b>	nutr	management report
			image
<b>State</b>			
	<b>WA Department of Agriculture</b>	knap	distribution map
			distribution map
			distribution map
		spar	shapefile
			shapefile
			annual report
	<b>WA State Parks &amp; Recreation Commission</b>	knap	report
<b>Tribe</b>			
	<b>Skokomish Tribe</b>	tun	progress report

Type of Organization	Organization	Priority Species	Type of Data
<b>County</b>			
	<b>Noxious Weed Control Board, Clallam County</b>	knap	shapefile shapefile
<b>Federal</b>			
	<b>National Park, Olympic</b>	knap	lat/long and coverage
<b>Research</b>			
	<b>Tulane University</b>	tun	peer-reviewed lit on survey
<b>State</b>			
	<b>WA Department of Agriculture</b>	brel	distribution map
		knap	distribution map
		spar	annual report shapefile shapefile
<b>Tribe</b>			
	<b>Skokomish Tribe</b>	tun	progress report

Type of Organization	Organization	Priority Species	Type of Data
<b>Federal</b>			
	<b>US Forest Service - Olympic National Forest</b>	knap	shapefile
<b>NGO</b>			
	<b>REEF Environmental Education Foundation</b>	tun	poster
<b>State</b>			
	<b>WA Department of Agriculture</b>	brel	distribution map
		knap	distribution map
	<b>WA State Parks &amp; Recreation Commission</b>		report
<b>Tribe</b>			
	<b>Skokomish Tribe</b>	tun	project report

Type of Organization	Organization	Priority Species	Type of Data
<b>County</b>			
	<b>Noxious Weed Control Board, Skagit County</b>	knap	map of single population
	<b>Skagit County Public Works</b>	brel	annual management reports report
<b>Federal</b>			
	<b>US Department of Agriculture</b>	nutr	spreadsheet - xls
<b>NGO</b>			
	<b>People for Puget Sound</b>	spar	shapefile shapefile shapefile shapefile shapefile
<b>Research</b>			
	<b>Portland State University</b>	nutr	image management report
	<b>Tulane University</b>	tun	peer-reviewed lit on survey
	<b>University of Washington Herbarium, Burke Museum</b>	brel	herbarium records
<b>State</b>			
	<b>WA Department of Agriculture</b>	brel	distribution map
		knap	distribution map
		spar	annual report shapefile shapefile
<b>Tribe</b>			
	<b>Swinomish Tribe</b>	knap	shapefile shapefile
		spar	shapefile shapefile

# Data Collection at Puget Sound Basin Level

Type of Organization	Organization	Priority Species	Type of Data
	<b>WA Department of Fish &amp; Wildlife</b>	tun	biennial report to legislature report
<b>Federal</b>			
	<b>US Geological Survey</b>	nutr	database
<b>NGO</b>			
	<b>REEF Environmental Education Foundation</b>	tun	poster online report online report
<b>Research</b>			
	<b>Portland State University</b>	nutr	image management report
	<b>University of Washington - Friday Harbor Labs</b>	tun	report spreadsheet
	<b>University of Washington Herbarium, Burke Museum</b>	knap	herbarium records
<b>State</b>			
	<b>WA Department of Agriculture</b>	gymo	shapefile shapefile shapefile hardcopy trap records shapefile shapefile powerpoint describing program annual report
		phrag	shapefile
		spar	shapefile shapefile annual report
	<b>WA Department of Ecology</b>	brel	shapefile
		phrag	shapefile
	<b>WA Department of Fish &amp; Wildlife</b>	tun	biennial report to legislature report
	<b>WA Department of Natural Resources</b>		report
	<b>WA Department of Transportation</b>	knap	shapefile
	<b>WA State Parks &amp; Recreation Commission</b>		spreadsheet - xls

Type of Organization	Organization	Priority Species	Type of Data
	<b>WA State Parks &amp; Recreation Commission</b>	multiple	spreadsheet - xls
		phrag	spreadsheet - xls
		spar	spreadsheet - xls

**Tribe**

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	<b>Northwest Indian Fisheries Commission</b>	vhs	report from database shapefile
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# Data Collection at Washington State Level

Type of Organization	Organization	Priority Species	Type of Data	
<b>Federal</b>				
	US Geological Survey	nutr	database	
<b>Research</b>				
	Portland State University	nutr	image management report	
	University of Washington - Friday Harbor Labs	tun	spreadsheet report	
	University of Washington Herbarium, Burke Museum	knap	herbarium records	
<b>State</b>				
	WA Department of Agriculture	brel	distribution map	
		gymo	powerpoint describing program shapefile shapefile shapefile shapefile shapefile hardcopy trap records annual report	
		knap	distribution map distribution map distribution map	
		phrag	shapefile	
		spar	annual report	
		WA Department of Transportation	knap	shapefile
		WA State Parks & Recreation Commission		spreadsheet - xls
			multiple	spreadsheet - xls
			phrag	spreadsheet - xls
			spar	spreadsheet - xls
<b>Tribe</b>				
	Northwest Indian Fisheries Commission	vhs	shapefile report from database	

## Count of Data Files by Type for Priority Species

Type of Data	No. of files
<b>Brazilian elodea</b>	<b>total files: 12</b>
shapefile	3
report	2
anecdotal report	2
annual management reports	1
distribution map	1
herbarium records	1
image	1
press	1
<b>common reed</b>	<b>total files: 14</b>
shapefile	8
image	2
spreadsheet - xls	2
herbarium record	1
spatial	1
<b>gypsy moths</b>	<b>total files: 8</b>
shapefile	5
annual report	1
hardcopy trap records	1
powerpoint describing program	1
<b>hydrilla</b>	<b>total files: 8</b>
report	4
shapefile	2
herbarium record	1
image	1

Type of Data	No. of files
<b>knapweeds</b>	<b>total files: 39</b>
shapefile	23
report	4
distribution map	3
	2
herbarium records	1
spreadsheet - xls	1
spreadsheet	1
Observations with mile marker locations	1
map of single population	1
lat/long and coverage	1
map of coverage	1
<b>nutria</b>	<b>total files: 9</b>
image	2
	1
anecdotal report	1
csv	1
database	1
management report	1
spreadsheet - xls	1
report	1
	0
<b>spartina</b>	<b>total files: 29</b>
shapefile	18
spreadsheet - xls	2
report	2
anecdotal report	2
image	1
image - aerial extent	1
herbarium records	1
annual report	1
images	1

Type of Data	No. of files
<b>tunicates</b>	<b>total files: 16</b>
report	4
online report	2
shapefile	1
project report	1
progress report	1
spreadsheet	1
image	1
geodatabase	1
biennial report to legislature	1
abundance and recruitment data	1
peer-reviewed lit on survey	1
poster	1
<b>variable leaf milfoil</b>	<b>total files: 5</b>
shapefile	2
grant report	1
report	1
image	1
<b>VHS type IVa (Viral Hemorrhagic Septicemia Virus IVa genotype)</b>	<b>total files: 2</b>
report from database	1
shapefile	1
<b>wood-boring beetles</b>	<b>total files: 4</b>
shapefile	3
shapefiles	1
<b>zebra, quagga mussels</b>	<b>total files: 2</b>
Shapefile	1
excell spreadsheet	1

# Programs Targeting Gypsy Moth

Lead Organization	Program Type	All Priority Species addressed by Program
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## State

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WA Department of Agriculture	detection	gymo
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**TOTAL PROGRAMS: 1**

# Programs Targeting Knapweed

Lead Organization	Program Type	All Priority Species addressed by Program
<b>City</b>		
<b>Bellingham Parks &amp; Recreation Department</b>	prevention; detection; eradication; control; monitoring	knap
<b>County</b>		
<b>Conservation District, Clallam County</b>	prevention; detection; education/outreach	knap
<b>Noxious Weed Control Board, Clallam County</b>	control; monitoring	knap
<b>Noxious Weed Control Board, Island County</b>	prevention; detection; eradication; education/outreach	knap
<b>Noxious Weed Control Board, Jefferson County</b>	prevention; detection; eradication; control; monitoring; education/outreach; policy	knap; phrag
<b>Noxious Weed Control Board, King County</b>	control	knap
<b>Noxious Weed Control Board, King County</b>	prevention; detection; eradication; control; monitoring; education/outreach	knap; phrag
<b>Noxious Weed Control Board, Kitsap County</b>	prevention; detection; control; monitoring; education/outreach; policy	knap; spar
<b>Noxious Weed Control Board, Lewis County</b>	control; monitoring	knap
<b>Noxious Weed Control Board, Mason County</b>	prevention; detection; eradication; control; education/outreach	knap
<b>Noxious Weed Control Board, Pierce County</b>	control; education/outreach; enforcement	knap
<b>Noxious Weed Control Board, San Juan County</b>	detection; control; monitoring	knap; spar
<b>Noxious Weed Control Board, Skagit County</b>	control	knap
<b>Noxious Weed Control Board, Snohomish County</b>	detection; control; monitoring; funding	knap
<b>Noxious Weed Control Board, Thurston County</b>	prevention; detection; eradication; control; monitoring; education/outreach	knap
<b>Noxious Weed Control Board, Whatcom County</b>	prevention; detection; eradication; control; monitoring; education/outreach	knap
<b>San Juan County Public Works</b>	detection; control; monitoring	knap

Lead Organization	Program Type	All Priority Species addressed by Program
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## Federal

National Park, Mount Rainier	detection; monitoring; control	knap
National Park, North Cascades	prevention; detection; control	knap
National Park, Olympic	control	knap
US Forest Service - Olympic National Forest	prevention; detection; eradication; control; monitoring	knap

## Research

Oregon State University	education/outreach; policy	kudz; knap; phrag
University of Washington	detection; education/outreach	kudz; vlmi; brel; hyd; knap; phrag; spar
Washington State University	control; education/outreach; research	knap

## State

Noxious Weed Control Board, Washington State	education/outreach; funding; policy	kudz; vlmi; brel; hyd; knap; spar
WA Department of Agriculture	detection; eradication; control; funding	knap
WA Department of Agriculture	eradication; control; funding	knap; phrag
WA Department of Natural Resources	control; eradication	knap
WA Department of Natural Resources	detection; prevention; control; eradication; monitoring; education/outreach; funding	knap; spar;
WA Department of Transportation	prevention; detection; eradication; control; monitoring; education/outreach; funding	knap; phrag
WA State Parks & Recreation Commission	prevention; detection; eradication; control; monitoring; education/outreach	knap

## Tribe

Swinomish Tribe	control; eradication; monitoring	knap; spar
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**TOTAL PROGRAMS: 32**

# Programs Targeting Kudzu

Lead Organization	Program Type	All Priority Species addressed by Program
<b>County</b>		
Noxious Weed Control Board, Island County	prevention; detection; education/outreach	kudz; vlmi; hyd
Noxious Weed Control Board, King County	prevention; detection; education/outreach	kudz; vlmi; hyd
Noxious Weed Control Board, Kitsap County	prevention; detection; education/outreach	kudz
Noxious Weed Control Board, Lewis County	detection; education/outreach	brel; hyd; kudz; vlmi
Noxious Weed Control Board, Snohomish County	detection; education/outreach	kudz
<b>Federal</b>		
US Forest Service - Olympic National Forest	detection	kudz; vlmi; brel; hyd; phrag; spar
<b>Research</b>		
Oregon State University	education/outreach; policy	kudz; knap; phrag
University of Washington	detection; education/outreach	kudz; vlmi; brel; hyd; knap; phrag; spar
<b>State</b>		
Noxious Weed Control Board, Washington State	education/outreach; funding; policy	kudz; vlmi; brel; hyd; knap; spar
WA Department of Agriculture	detection; education/outreach; funding	kudz
WA Department of Transportation	detection; monitoring; education/outreach	kudz; brel; hyd
<b>TOTAL PROGRAMS: 11</b>		

# Programs Targeting Nutria

Lead Organization	Program Type	All Priority Species addressed by Program
<b>Federal</b>		
US Department of Agriculture	control	nutr
US Fish & Wildlife Service	education/outreach; control; funding	nutr; tun
US Geological Survey	other: tracking distribution	zemu; vlmi; brel; hyd; nutr; tun; spar
<b>Research</b>		
Portland State University	policy	nutr
University of Washington	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar
<b>State</b>		
Puget Sound Partnership	prevention; education/outreach	spar; tun; nutr
<b>Tribe</b>		
Northwest Indian Fisheries Commission	prevention; detection; control; monitoring	nutr
<b>TOTAL PROGRAMS: 7</b>		

# Programs Targeting Common Reed

Lead Organization	Program Type	All Priority Species addressed by Program
<b>County</b>		
<b>Conservation District, Clallam County</b>	detection	phrag
<b>Noxious Weed Control Board, Island County</b>	detection; education/outreach	phrag
<b>Noxious Weed Control Board, Jefferson County</b>	prevention; detection; eradication; control; monitoring; education/outreach; policy	knap; phrag
<b>Noxious Weed Control Board, King County</b>	control	phrag
<b>Noxious Weed Control Board, King County</b>	prevention; detection; eradication; control; monitoring; education/outreach	knap; phrag
<b>Noxious Weed Control Board, Kitsap County</b>	detection; control; monitoring; education/outreach; policy	phrag
<b>Noxious Weed Control Board, Mason County</b>	prevention; detection; education/outreach	brel; hyd; phrag; spar
<b>Noxious Weed Control Board, San Juan County</b>	detection	brel; phrag
<b>Noxious Weed Control Board, Snohomish County</b>	prevention; detection; control; monitoring; education/outreach	phrag
<b>Noxious Weed Control Board, Thurston County</b>	prevention; detection; eradication	phrag
<b>Noxious Weed Control Board, Whatcom County</b>	eradication; control; monitoring; education/outreach	phrag
<b>Federal</b>		
<b>US Forest Service - Olympic National Forest</b>	detection	kudz; vlmi; brel; hyd; phrag; spar
<b>Research</b>		
<b>Oregon State University</b>	education/outreach; policy	kudz; knap; phrag
<b>University of Washington</b>	detection; education/outreach	kudz; vlmi; brel; hyd; knap; phrag; spar
<b>University of Washington</b>	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar

Lead Organization	Program Type	All Priority Species addressed by Program
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**State**

<b>WA Department of Agriculture</b>	detection; eradication; control; education/outreach	phrag
<b>WA Department of Agriculture</b>	eradication; control; funding	knap; phrag
<b>WA Department of Ecology</b>	detection; monitoring; funding	phrag
<b>WA Department of Transportation</b>	prevention; detection; eradication; control; monitoring; education/outreach; funding	knap; phrag
<b>WA State Parks &amp; Recreation Commission</b>	detection; ?	phrag

**TOTAL PROGRAMS: 20**

# Programs Targeting Tunicates

Lead Organization	Program Type	All Priority Species addressed by Program
<b>City</b>		
Metro Parks Tacoma	education/outreach	zemu; tun; spar
<b>County</b>		
Noxious Weed Control Board, Island County	education/outreach	tun
<b>Federal</b>		
US Fish & Wildlife Service	education/outreach; control; funding	nutr; tun
US Geological Survey	other: tracking distribution	zemu; vlmi; brel; hyd; nutr; tun; spar
<b>NGO</b>		
Nahkeeta Northwest	prevention; detection; monitoring; education/outreach	caul; spar; tun
Reef Environmental Education Foundation	detection; monitoring; education/outreach	tun
<b>Research</b>		
University of Washington	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar
<b>State</b>		
Puget Sound Partnership	prevention; education/outreach	spar; tun; nutr
<b>Tribe</b>		
Northwest Indian Fisheries Commission	prevention; detection; eradication; control; monitoring; education/outreach; funding; policy	zemu; tun
Skokomish Tribe	prevention; detection; control	tun; zemu
<b>TOTAL PROGRAMS: 10</b>		

# Programs Targeting VHS type IVa

Lead Organization	Program Type	All Priority Species addressed by Program
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## Federal

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US Fish & Wildlife Service	detection	vhs
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## Tribe

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Northwest Indian Fisheries Commission	detection	vhs
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**TOTAL PROGRAMS: 2**

# Programs Targeting Variable Leaf Milfoil

Lead Organization	Program Type	All Priority Species addressed by Program
<b>County</b>		
Noxious Weed Control Board, Island County	prevention; detection; education/outreach	kudz; vlmi; hyd
Noxious Weed Control Board, King County	prevention; detection; education/outreach	kudz; vlmi; hyd
Noxious Weed Control Board, Kitsap County	detection; education/outreach	vlmi
Noxious Weed Control Board, Lewis County	detection; education/outreach	brel; hyd; kudz; vlmi
Noxious Weed Control Board, Mason County	prevention; education/outreach	vlmi
Noxious Weed Control Board, Pierce County	eradication; control	vlmi
Noxious Weed Control Board, Thurston County	prevention; detection; eradication; control; monitoring	vlmi
Noxious Weed Control Board, Whatcom County	education/outreach	vlmi
<b>Federal</b>		
US Forest Service - Olympic National Forest	detection	kudz; vlmi; brel; hyd; phrag; spar
US Geological Survey	other: tracking distribution	zemu; vlmi; brel; hyd; nutr; tun; spar
<b>Research</b>		
University of Washington	detection; education/outreach	kudz; vlmi; brel; hyd; knap; phrag; spar
University of Washington	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar
<b>State</b>		
Noxious Weed Control Board, Washington State	education/outreach; funding; policy	kudz; vlmi; brel; hyd; knap; spar
WA Department of Ecology	detection; eradication; control; monitoring; funding	vlmi
<b>TOTAL PROGRAMS: 14</b>		

# Programs Targeting Brazilian elodea

Lead Organization	Program Type	All Priority Species addressed by Program
<b>County</b>		
<b>Conservation District, Jefferson County</b>	eradication; control; monitoring; education/outreach	brel
<b>Noxious Weed Control Board, Island County</b>	prevention; detection; eradication; monitoring; education/outreach	brel
<b>Noxious Weed Control Board, King County</b>	prevention; detection; eradication; control; monitoring; education/outreach	brel
<b>Noxious Weed Control Board, Kitsap County</b>	control	brel
<b>Noxious Weed Control Board, Lewis County</b>	detection; education/outreach	brel; hyd; kudz; vlmi
<b>Noxious Weed Control Board, Mason County</b>	prevention; detection; education/outreach	brel; hyd; phrag; spar
<b>Noxious Weed Control Board, San Juan County</b>	detection	brel; phrag
<b>Noxious Weed Control Board, Whatcom County</b>	detection; monitoring; education/outreach	brel
<b>Skagit County Public Works</b>	control; monitoring	brel
<b>Snohomish County Surface Water Management</b>	prevention; control; eradication; monitoring	brel
<b>Federal</b>		
<b>US Forest Service - Olympic National Forest</b>	detection	kudz; vlmi; brel; hyd; phrag; spar
<b>US Geological Survey</b>	other: tracking distribution	zemu; vlmi; brel; hyd; nutr; tun; spar
<b>Research</b>		
<b>University of Washington</b>	detection; education/outreach	kudz; vlmi; brel; hyd; knap; phrag; spar
<b>University of Washington</b>	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar
<b>University of Washington</b>	education/outreach	brel
<b>University of Washington</b>	prevention; education/outreach; research	brel
<b>State</b>		
<b>Noxious Weed Control Board, Washington State</b>	education/outreach; funding; policy	kudz; vlmi; brel; hyd; knap; spar
<b>WA Department of Ecology</b>	detection; control; monitoring; funding; research	brel
<b>WA Department of Natural Resources</b>	detection; prevention; control; eradication; monitoring; education/outreach; funding	brel; spar;

Lead Organization	Program Type	All Priority Species addressed by Program
<b>WA Department of Transportation</b>	detection; monitoring; education/outreach	kudz; brel; hyd

**Tribe**

<b>Northwest Indian Fisheries Commission</b>	prevention; policy	brel; hyd
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**TOTAL PROGRAMS: 21**

# Programs Targeting Feral Swine

Lead Organization	Program Type	All Priority Species addressed by Program
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## Research

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University of Washington	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar
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**TOTAL PROGRAMS: 1**

# Programs Targeting Gypsy Moth

Lead Organization	Program Type	All Priority Species addressed by Program
<b>WA Department of Fish and Wildlife</b>	prevention; detection	kudz; vlmi; brel; hyd
<b>County</b>		
<b>King County Lakes Stewardship</b>	eradication; monitoring	hyd
<b>Noxious Weed Control Board, Island County</b>	prevention; detection; education/outreach	kudz; vlmi; hyd
<b>Noxious Weed Control Board, King County</b>	prevention; detection; education/outreach	kudz; vlmi; hyd
<b>Noxious Weed Control Board, Kitsap County</b>	prevention; detection; monitoring; education/outreach; policy	hyd
<b>Noxious Weed Control Board, Lewis County</b>	detection; education/outreach	brel; hyd; kudz; vlmi
<b>Noxious Weed Control Board, Mason County</b>	prevention; detection; education/outreach	brel; hyd; phrag; spar
<b>Noxious Weed Control Board, Thurston County</b>	prevention	hyd
<b>Noxious Weed Control Board, Whatcom County</b>	detection; education/outreach	hyd
<b>Snohomish County Surface Water Management</b>	prevention; education/outreach	hydr
<b>Federal</b>		
<b>US Department of Agriculture</b>	prevention; detection; control; eradication; education/outreach; monitoring; enforcement	caul; hyd
<b>US Forest Service - Olympic National Forest</b>	detection	kudz; vlmi; brel; hyd; phrag; spar
<b>US Geological Survey</b>	other: tracking distribution	zemu; vlmi; brel; hyd; nutr; tun; spar
<b>Research</b>		
<b>University of Washington</b>	detection; education/outreach	kudz; vlmi; brel; hyd; knap; phrag; spar
<b>University of Washington</b>	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar

Lead Organization	Program Type	All Priority Species addressed by Program
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**State**

<b>Noxious Weed Control Board, Washington State</b>	education/outreach; funding; policy	kudz; vlmi; brel; hyd; knap; spar
<b>WA Department of Ecology</b>	detection; eradication; monitoring; funding	hyd
<b>WA Department of Transportation</b>	detection; monitoring; education/outreach	kudz; brel; hyd

**Tribe**

<b>Northwest Indian Fisheries Commission</b>	prevention; policy	brel; hyd
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**TOTAL PROGRAMS: 19**

# Programs Targeting Spartina

Lead Organization	Program Type	All Priority Species addressed by Program
<b>City</b>		
Metro Parks Tacoma	education/outreach	zemu; tun; spar
<b>County</b>		
Conservation District, Clallam County	education/outreach	spar
Noxious Weed Control Board, Island County	prevention; detection; eradication; monitoring; education/outreach	spar
Noxious Weed Control Board, King County	prevention; detection; monitoring; education/outreach	spar
Noxious Weed Control Board, Kitsap County	prevention; detection; control; monitoring; education/outreach; policy	knap; spar
Noxious Weed Control Board, Mason County	prevention; detection; education/outreach	brel; hyd; phrag; spar
Noxious Weed Control Board, San Juan County	detection; control; monitoring	knap; spar
Noxious Weed Control Board, Skagit County	control; eradication	spar
Noxious Weed Control Board, Snohomish County	prevention; detection; eradication; control; monitoring; education/outreach; funding; policy	spar
Noxious Weed Control Board, Thurston County	prevention; monitoring	spar
Noxious Weed Control Board, Whatcom County	Eradication; control; detection; education/outreach; monitoring; prevention	spar
<b>Federal</b>		
US Fish & Wildlife Service	control; funding; education/outreach	spar
US Forest Service - Olympic National Forest	detection	kudz; vlmi; brel; hyd; phrag; spar
US Geological Survey	other: tracking distribution	zemu; vlmi; brel; hyd; nutr; tun; spar
<b>NGO</b>		
Nahkeeta Northwest	prevention; detection; monitoring; education/outreach	caul; spar; tun
People for Puget Sound	detection; eradication; control; monitoring; education/outreach	spar

Lead Organization	Program Type	All Priority Species addressed by Program
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## Research

University of Washington	detection; education/outreach	kudz; vlmi; brel; hyd; knap; phrag; spar
University of Washington	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar
University of Washington	research; funding	spar

## State

Noxious Weed Control Board, Washington State	education/outreach; funding; policy	kudz; vlmi; brel; hyd; knap; spar
Puget Sound Partnership	prevention; education/outreach	spar; tun; nutr
WA Department of Agriculture	eradication	spar
WA Department of Ecology	control; eradication	spar
WA Department of Natural Resources	detection; prevention; control; eradication; monitoring; education/outreach; funding	brel; spar;
WA Department of Natural Resources	detection; prevention; control; eradication; monitoring; education/outreach; funding	knap; spar;
WA State Parks & Recreation Commission	detection; eradication; control; monitoring	spar

## Tribe

Stillaguamish Tribe	eradication	spar
Swinomish Tribe	control; eradication; monitoring	knap; spar

**TOTAL PROGRAMS: 28**

# Programs Targeting Wood-Boring Beetles

Lead Organization	Program Type	All Priority Species addressed by Program
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## State

<b>WA Department of Agriculture</b>	detection; education	wbb
<b>WA Department of Natural Resources</b>	detection; monitoring; education/outreach; policy	wbb

**TOTAL PROGRAMS: 2**

# Programs Targeting Zebra, Quagga Mussels

Lead Organization	Program Type	All Priority Species addressed by Program
<b>City</b>		
Metro Parks Tacoma	education/outreach	zemu; tun; spar
<b>Federal</b>		
US Fish & Wildlife Service	control; education/outreach; monitoring; policy; prevention; research	caul; zemu
US Fish & Wildlife Service	prevention; detection; funding; education/outreach	zemu
US Geological Survey	other: tracking distribution	zemu; vlmi; brel; hyd; nutr; tun; spar
<b>Research</b>		
University of Washington	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar
<b>State</b>		
WA Department of Ecology	detection	zemu
WA State Parks & Recreation Commission	prevention; detection; education/outreach	zemu
<b>Tribe</b>		
Northwest Indian Fisheries Commission	prevention; detection; eradication; control; monitoring; education/outreach; funding; policy	zemu; tun
Skokomish Tribe	prevention; detection; control	tun; zemu
<b>TOTAL PROGRAMS: 9</b>		

# Programs Targeting Caulerpa

Lead Organization	Program Type	All Priority Species addressed by Program
<b>Federal</b>		
<b>US Department of Agriculture</b>	prevention; detection; control; eradication; education/outreach; monitoring; enforcement	caul; hyd
<b>US Fish &amp; Wildlife Service</b>	control; education/outreach; monitoring; policy; prevention; research	caul; zemu
<b>NGO</b>		
<b>Nahkeeta Northwest</b>	prevention; detection; monitoring; education/outreach	caul; spar; tun
<b>Research</b>		
<b>University of Washington</b>	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar
<b>TOTAL PROGRAMS: 4</b>		

# Organizations Collecting Data on Priority Species

Organization	Type of Work	Type of Data
<b>Brazilian elodea</b>		
<b>County</b>		
Noxious Weed Control Board, Jefferson County	-	anecdotal report
Noxious Weed Control Board, King County	presence/absence	shapefile
	presence/absence	image
	presence/absence	anecdotal report
Skagit County Public Works	Presence	report
	presence/absence; management efforts	annual management reports
<b>Research</b>		
University of Washington Herbarium, Burke Museum	observation	herbarium records
	presence/absence	shapefile
<b>State</b>		
WA Department of Agriculture	presence/absence	distribution map
WA Department of Ecology	presence	press
	presence/absence	shapefile
	related water quality attributes	report

## common reed

## County

<b>Noxious Weed Control Board, Jefferson County</b>	observation	shapefile
<b>Noxious Weed Control Board, King County</b>	presence/absence	shapefile
<b>Noxious Weed Control Board, Thurston County</b>		shapefile
<b>Noxious Weed Control Board, Whatcom County</b>	observation; management efforts	shapefile
	presence/absence; management efforts	image

## NGO

<b>EarthCorps</b>	Presence	spatial
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## Research

<b>University of Washington Herbarium, Burke Museum</b>	observation	herbarium record
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## State

<b>WA Department of Agriculture</b>	presence/absence	shapefile
<b>WA Department of Ecology</b>	presence/absence	shapefile
<b>WA Department of Transportation</b>	observation	shapefile
<b>WA State Parks &amp; Recreation Commission</b>	Presence	shapefile
	presence/absence	spreadsheet - xls
	presence/absence	spreadsheet - xls
<b>Washington Sea Grant</b>	observation	image

**gypsy moths****State**

<b>WA Department of Agriculture</b>	presence/absence	hardcopy trap records
	presence/absence	shapefile
	presence/absence	powerpoint describing program
	presence/absence	annual report
	presence/absence	shapefile

**hydrilla****County**

<b>King County Lakes Stewardship</b>	presence/absence	shapefile
	presence/absence; management efforts	report
	presence/absence; management efforts	report
	presence/absence; management efforts	image

**Research**

<b>University of Washington Herbarium, Burke Museum</b>	observation	herbarium record
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**State**

<b>WA Department of Ecology</b>	absence	report
	presence/absence	shapefile
	presence; successful eradication	report

## knapweeds

## County

<b>Noxious Weed Control Board, Clallam County</b>	presence/absence	shapefile
	presence/absence	shapefile
<b>Noxious Weed Control Board, Jefferson County</b>	presence/absence	shapefile
	presence/absence	shapefile
	presence/absence	shapefile
<b>Noxious Weed Control Board, King County</b>	presence/absence	shapefile
<b>Noxious Weed Control Board, Kitsap County</b>	observation; management efforts	shapefile
<b>Noxious Weed Control Board, Lewis County</b>	observation	shapefile
<b>Noxious Weed Control Board, Pierce County</b>	observation; management efforts	spreadsheet
<b>Noxious Weed Control Board, San Juan County</b>		shapefile
	presence/absence	map of coverage
<b>Noxious Weed Control Board, Skagit County</b>	0	
	observation; management efforts	map of single population
<b>Noxious Weed Control Board, Thurston County</b>		shapefile
<b>Noxious Weed Control Board, Whatcom County</b>	presence/absence	shapefile
<b>San Juan County Public Works</b>	presence/absence	shapefile
	presence/absence	shapefile
	presence/absence	shapefile
	presence/absence	shapefile

## Federal

<b>National Park, Mount Rainier</b>	presence/absence	Observations with mile marker locations
<b>National Park, Olympic</b>	0	
	observation	lat/long and coverage

## Research

<b>Oregon State University</b>		shapefile
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Organization	Type of Work	Type of Data
University of Washington Herbarium, Burke Museum	observation	herbarium records

## State

WA Department of Agriculture	presence/absence	distribution map
	presence/absence	distribution map
	presence/absence	distribution map
WA Department of Transportation	observation	shapefile
WA State Parks & Recreation Commission	Presence	shapefile
	Presence	shapefile
	presence/absence	report
	presence/absence	report
	presence/absence	spreadsheet - xls
	presence/absence	report
	presence/absence	report

## Tribe

Swinomish Tribe	presence/absence	shapefile
	presence/absence	shapefile

**nutria****Federal****US Department of Agriculture**

observation; management efforts

spreadsheet - xls

**US Geological Survey**

presence/absence; management efforts; introduction pathways; observation

database

**Research****Portland State University**

0

presence

image

presence/absence; management efforts management report

**University of Washington**

observation

Observation

csv

observation; management efforts

anecdotal report

**State****Washington Sea Grant**

observation

image

## spartina

## County

<b>Noxious Weed Control Board, Jefferson County</b>	presence/absence	anecdotal report
<b>Noxious Weed Control Board, King County</b>	presence/absence	anecdotal report
<b>Noxious Weed Control Board, San Juan County</b>		shapefile
	presence/absence	images
	presence/absence	image - aerial extent

## NGO

<b>People for Puget Sound</b>	presence/absence	shapefile
	presence/absence	shapefile

## Research

<b>Oregon State University</b>	management efforts	spreadsheet - xls
<b>University of Washington Herbarium, Burke Museum</b>	observation	herbarium records

## State

<b>WA Department of Agriculture</b>	presence/absence	shapefile
	presence/absence; management efforts	shapefile
	presence/absence; management efforts; transport pathways	annual report

Organization	Type of Work	Type of Data
<b>WA State Parks &amp; Recreation Commission</b>	Presence	shapefile
	presence/absence	report
	presence/absence	report
	presence/absence	spreadsheet - xls
<b>Washington Sea Grant</b>	observation	image
<b>Tribe</b>		
<b>Swinomish Tribe</b>	presence/absence	shapefile
	presence/absence	shapefile

## tunicates

**WA Department of Fish & Wildlife**

biennial report to legislature

Presence

geodatabase

Presence

report

presence/absence; management efforts report

**NGO****REEF Environmental Education Foundation**

poster

image

observation

online report

observation

online report

**Research****Tulane University**

presence/absence

peer-reviewed lit on survey

presence/absence

abundance and recruitment data

**State****WA Department of Fish & Wildlife**

biennial report to legislature

Presence

report

Presence

geodatabase

presence/absence; management efforts report

**WA Department of Natural Resources**

presence/absence

report

**Tribe****Skokomish Tribe**

Presence

shapefile

presence/absence

project report

presence/absence; management efforts progress report

**variable leaf milfoil**

**County**

<b>Noxious Weed Control Board, Pierce County</b>	presence/absence; management efforts	grant report
<b>Noxious Weed Control Board, Thurston County</b>	presence/absence	shapefile

**State**

<b>WA Department of Ecology</b>		image
	presence/absence	shapefile
	presence; eradication efforts	report

**VHS type IVa (Viral Hemorrhagic Septicemia Virus IVa genotype)**

**Tribe**

<b>Northwest Indian Fisheries Commission</b>	presence/absence	shapefile
	presence/absence	report from database

**wood-boring beetles**

**State**

<b>WA Department of Agriculture</b>	Presence	shapefiles
	Presence	shapefile
	Presence	shapefile
	Presence	shapefile

**zebra, quagga mussels**

0	Shapefile
0	excell spreadsheet

## Organizations Working on Priority Species in Puget Sound Basin

Organization	Organization Type	Priority Species
Bellingham Parks & Recreation Department	City	knap
Chehalis River Basin Land Trust	NGO	
Conservation District, Clallam County	County	knap; phrag; spar
Conservation District, Jefferson County	County	brel
EarthCorps	NGO	
Friends of the Cedar River Watershed	NGO	wbb
Herrera Environmental Consultants	Private	
King County Lakes Stewardship	County	erad; monit; hyd; brel
Metro Parks Tacoma	City	zemu; tun; spar
Mountains to Sound Greenway	NGO	knap
Nahkeeta Northwest	NGO	caul; spar; tun
National Forest, Mt. Baker-Snoqualmie	Federal	knap
National Park, Mount Rainier	Federal	knap
National Park, Mount Rainier	Federal	knap
National Park, Olympic	Federal	knap
Northwest Indian Fisheries Commission	Tribe	vhs
Northwest Indian Fisheries Commission	Tribe	brel; hyd; nutr; zemu; tun
Noxious Weed Control Board, Clallam County	County	knap; phrag
Noxious Weed Control Board, Island County	County	brel; spar; knap; kudz; vlmi; hyd; phrag; tun
Noxious Weed Control Board, Jefferson County	County	knap; phrag; brel; spar
Noxious Weed Control Board, King County	County	brel; knap; phrag; kudz; vlmi; hyd; spar
Noxious Weed Control Board, King County	County	phrag; knap
Noxious Weed Control Board, King County	County	spar; knap; phrag; brel; vlmi
Noxious Weed Control Board, King County	County	brel
Noxious Weed Control Board, Kitsap County	County	brel; hyd; knap; spar; kudz; phrag; vlmi
Noxious Weed Control Board, Lewis County	County	knap; brel
Noxious Weed Control Board, Mason County	County	brel; hyd; phrag; spar; knap; vlmi

Organization	Organization Type	Priority Species
Noxious Weed Control Board, Pierce County	County	knap; vlmi
Noxious Weed Control Board, Pierce County	County	knap; vlmi
Noxious Weed Control Board, San Juan County	County	spar
Noxious Weed Control Board, San Juan County	County	knap
Noxious Weed Control Board, Skagit County	County	knap; nutr; spar
Noxious Weed Control Board, Skamania County	County	knap; nutr
Noxious Weed Control Board, Snohomish County	County	knap; phrag; spar
Noxious Weed Control Board, Thurston County	County	hyd; knap; phrag; spar; vlmi; brel
Noxious Weed Control Board, Washington State	State	kudz; vlmi; brel; hyd; knap; spar
Noxious Weed Control Board, Whatcom County	County	brel; vlmi; hyd; knap; phrag
Oregon State University	Research	spar; phrag; knap;
Pacific States Marine Fisheries Commission		caul; tun; zemu
Padilla Bay Reserve	Federal	spar
People for Puget Sound	NGO	spar
Portland State University	Research	nutr
Reef Environmental Education Foundation	NGO	tun
Reef Environmental Education Foundation	NGO	tun
San Juan County Public Works	County	knap
Seattle Public Utilities	City	wbb
Seattle Urban Nature Project (now EarthCorps)	NGO	
Skagit County Public Works	County	brel; hyd; vlmi
Skokomish Tribe	Tribe	tun
Skokomish Tribe (SKT)	Tribe	tun
Snohomish County Surface Water Management	County	brel; hyd
Stillaguamish Tribe	Tribe	spar; vhs
Swinomish Tribe	Tribe	knap; spar
Tulane University	Research	tun
University of Washington	Research	nutr
University of Washington	Research	brel

Organization	Organization Type	Priority Species
University of Washington	Research	nutr
University of Washington - Friday Harbor Labs	Research	tun
University of Washington Herbarium, Burke Museum	Research	kudz; vlmi; brel; hyd; knap; phrag; spar
University of Washington/Carnegie Mellon University		nutr
US Department of Agriculture	Federal	nutr
US Fish & Wildlife Service	Federal	brel; spar; nutr; tun; zemu
US Fish & Wildlife Service	Federal	tun; vhs
US Forest Service	Federal	gymo
US Forest Service - Mount Baker-Snoqualmie National Forest	Federal	knap
US Forest Service - Olympic National Forest	Federal	knap; kudz; vlmi; brel; hyd; phrag; spar
US Geological Survey	Federal	zemu; vlmi; brel; hyd; nutr; tun; spar
US Geological Survey	Federal	vhs
WA Department of Agriculture	State	spar
WA Department of Agriculture	State	gymo
WA Department of Agriculture	State	wbb
WA Department of Agriculture	State	spar
WA Department of Agriculture	State	knap; kudz; phrag
WA Department of Agriculture	State	wbb
WA Department of Agriculture	State	gymo; spar
WA Department of Ecology	State	brel; hyd; phrag; vlmi
WA Department of Ecology	State	vlmi; phrag; spar; brel; zemu
WA Department of Ecology	State	hyd; brel; phrag
WA Department of Fish & Wildlife		tun
WA Department of Fish & Wildlife	State	brel; hyd; vhs; nutr; tun; spar; vlmi; zemu
WA Department of Fish & Wildlife	State	tun
WA Department of Fish & Wildlife	State	zemu; nutr; tun
WA Department of Fish & Wildlife	State	nutr
WA Department of Fish & Wildlife	State	knap; kudz; vlmi; brel; hyd; spar
WA Department of Fish & Wildlife	State	vhs

Organization	Organization Type	Priority Species
<b>WA Department of Fish &amp; Wildlife</b>	State	tun
<b>WA Department of Natural Resources</b>	State	wbb
<b>WA Department of Natural Resources - Pacific Cascade Region</b>	State	knap; spar; mult
<b>WA Department of Transportation</b>	State	knap; phrag; kudz; brel; hyd
<b>WA Department of Transportation</b>	State	knap; phrag
<b>WA State Parks &amp; Recreation Commission</b>	State	knap; phrag; spar; zemu
<b>Washington Sea Grant</b>	State	brel; zemu; fesw; vlmi; brel; hyd; vhs; nutr; phrag; caul; tun; spar
<b>Washington State University Extension</b>	State	knap
<b>WSU King County Extension</b>	Research	knap

# Brazilian elodea

Lead Organization	Priority Species Targeted
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## Control

Conservation District, Jefferson County	brel
Noxious Weed Control Board, King County	brel
Noxious Weed Control Board, Kitsap County	brel
Skagit County Public Works	brel
US Fish & Wildlife Service	brel; spar
WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar
WA Department of Ecology	brel
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar

## Detection

Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, King County	brel
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, San Juan County	brel; phrag
Noxious Weed Control Board, Whatcom County	brel
University of Washington	kudz; vlmi; brel; hyd; knap; phrag; spar
US Forest Service - Olympic National Forest	kudz; vlmi; brel; hyd; phrag; spar
WA Department of Ecology	brel
WA Department of Fish & Wildlife	kudz; vlmi; brel; hyd
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Transportation	kudz; brel; hyd

## Education/Outreach

Conservation District, Jefferson County	brel
Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, King County	brel
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
Noxious Weed Control Board, Whatcom County	brel
University of Washington	brel
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Transportation	kudz; brel; hyd
Washington Sea Grant	brel
Washington Sea Grant	zemu; fesw; vlmi; brel; hyd; vhs; nutr; phrag; caul; tun; spar

## Enforcement

WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
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Lead Organization	Priority Species Targeted
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## Eradication

Conservation District, Jefferson County	brel
Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, King County	brel
WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar

## Funding

Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
US Fish & Wildlife Service	brel; spar
WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar
WA Department of Ecology	brel

## Monitoring

Conservation District, Jefferson County	brel
Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, King County	brel
Noxious Weed Control Board, Whatcom County	brel
Skagit County Public Works	brel
WA Department of Ecology	brel
WA Department of Transportation	kudz; brel; hyd

## Policy

Northwest Indian Fisheries Commission	brel; hyd
Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar

## Prevention

Northwest Indian Fisheries Commission	brel; hyd
Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, King County	brel
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
University of Washington	brel
WA Department of Fish & Wildlife	kudz; vlmi; brel; hyd
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar

## Research

University of Washington	brel
US Geological Survey	zemu; vlmi; brel; hyd; nutr; tun; spar
WA Department of Ecology	brel

# Caulerpa

Lead Organization

Priority Species Targeted

## Detection

Nahkeeta Northwest

caul; spar; tun

## Education/Outreach

Nahkeeta Northwest

caul; spar; tun

Washington Sea Grant

zemu; fesw; vlmi; brel; hyd; vhs; nutr;  
phrag; caul; tun; spar

## Monitoring

Nahkeeta Northwest

caul; spar; tun

# Feral Swine

Lead Organization

Priority Species Targeted

## Control

WA Department of Fish & Wildlife

fesw

## Education/Outreach

Washington Sea Grant

zemu; fesw; vlmi; brel; hyd; vhs; nutr;  
phrag; caul; tun; spar

# Gypsy Moths

Lead Organization

Priority Species Targeted

## Control

US Forest Service

gymo

## Detection

WA Department of Agriculture

gymo

# Hydrilla

## Lead Organization

## Priority Species Targeted

### Control

WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar

### Detection

Noxious Weed Control Board, Island County	kudz; vlmi; hyd
Noxious Weed Control Board, King County	kudz; vlmi; hyd
Noxious Weed Control Board, Kitsap County	hyd
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, Whatcom County	hyd
University of Washington	kudz; vlmi; brel; hyd; knap; phrag; spar
US Forest Service - Olympic National Forest	kudz; vlmi; brel; hyd; phrag; spar
WA Department of Ecology	hyd
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Fish & Wildlife	kudz; vlmi; brel; hyd
WA Department of Transportation	kudz; brel; hyd

### Education/Outreach

Noxious Weed Control Board, Island County	kudz; vlmi; hyd
Noxious Weed Control Board, King County	kudz; vlmi; hyd
Noxious Weed Control Board, Kitsap County	hyd
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
Noxious Weed Control Board, Whatcom County	hyd
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Transportation	kudz; brel; hyd
Washington Sea Grant	zemu; fesw; vlmi; brel; hyd; vhs; nutr; phrag; caul; tun; spar

### Enforcement

WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
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### Eradication

King County Lakes Stewardship	hyd
WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar
WA Department of Ecology	hyd

### Funding

Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar
WA Department of Ecology	hyd

Lead Organization	Priority Species Targeted
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## Monitoring

King County Lakes Stewardship	hyd
Noxious Weed Control Board, Kitsap County	hyd
WA Department of Ecology	hyd
WA Department of Transportation	kudz; brel; hyd

## Policy

Northwest Indian Fisheries Commission	brel; hyd
Noxious Weed Control Board, Kitsap County	hyd
Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar

## Prevention

Northwest Indian Fisheries Commission	brel; hyd
Noxious Weed Control Board, Island County	kudz; vlmi; hyd
Noxious Weed Control Board, King County	kudz; vlmi; hyd
Noxious Weed Control Board, Kitsap County	hyd
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, Thurston County	hyd
WA Department of Fish & Wildlife	kudz; vlmi; brel; hyd
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar

## Research

US Geological Survey	zemu; vlmi; brel; hyd; nutr; tun; spar
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# Knapweeds

Lead Organization	Priority Species Targeted
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## Control

Bellingham Parks & Recreation Department	knap
Mountains to Sound Greenway	knap
National Park, Mount Rainier	knap
National Park, Olympic	knap
Noxious Weed Control Board, Clallam County	knap
Noxious Weed Control Board, Jefferson County	knap; phrag
Noxious Weed Control Board, King County	knap
Noxious Weed Control Board, King County	knap; phrag
Noxious Weed Control Board, Kitsap County	knap; spar
Noxious Weed Control Board, Mason County	knap
Noxious Weed Control Board, San Juan County	knap
Noxious Weed Control Board, Snohomish County	knap
Noxious Weed Control Board, Thurston County	knap
Noxious Weed Control Board, Whatcom County	knap
San Juan County Public Works	knap
Swinomish Tribe	knap; spar
US Forest Service - Mount Baker-Snoqualmie National Forest	knap
US Forest Service - Olympic National Forest	knap
WA Department of Agriculture	knap
WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Fish & Wildlife	knap
WA Department of Transportation	knap; phrag
WA State Parks & Recreation Commission	knap
WSU King County Extension	knap

## Funding

Noxious Weed Control Board, Snohomish County	knap
Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
US Forest Service - Mount Baker-Snoqualmie National Forest	knap
WA Department of Agriculture	knap
WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Transportation	knap; phrag

## Control

WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar
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## Detection

Noxious Weed Control Board, Island County	kudz; vlmi; hyd
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Noxious Weed Control Board, King County	kudz; vlmi; hyd
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Noxious Weed Control Board, Kitsap County	kudz
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Noxious Weed Control Board, Snohomish County	kudz
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University of Washington	kudz; vlmi; brel; hyd; knap; phrag; spar
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US Forest Service - Olympic National Forest	kudz; vlmi; brel; hyd; phrag; spar
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WA Department of Agriculture	kudz
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WA Department of Fish & Wildlife	kudz; vlmi; brel; hyd
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WA Department of Transportation	kudz; brel; hyd
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## Education/Outreach

Noxious Weed Control Board, Island County	kudz; vlmi; hyd
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Noxious Weed Control Board, King County	kudz; vlmi; hyd
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Noxious Weed Control Board, Kitsap County	kudz
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Noxious Weed Control Board, Snohomish County	kudz
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Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
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Oregon State University	kudz; knap; phrag
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WA Department of Agriculture	kudz
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WA Department of Transportation	kudz; brel; hyd
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## Eradication

WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar
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## Funding

Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
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WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar
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WA Department of Agriculture	kudz
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## Monitoring

WA Department of Transportation	kudz; brel; hyd
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## Policy

Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
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Oregon State University	kudz; knap; phrag
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**Prevention**

<b>Noxious Weed Control Board, Island County</b>	kudz; vlmi; hyd
<b>Noxious Weed Control Board, King County</b>	kudz; vlmi; hyd
<b>Noxious Weed Control Board, Kitsap County</b>	kudz
<b>WA Department of Fish &amp; Wildlife</b>	kudz; vlmi; brel; hyd

# Nutria

Lead Organization

Priority Species Targeted

## Control

Northwest Indian Fisheries Commission	nutr
US Department of Agriculture	nutr
WA Department of Fish & Wildlife	zemu; nutr; tun
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Fish & Wildlife	nutr

## Detection

Northwest Indian Fisheries Commission	nutr
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Fish & Wildlife	zemu; nutr; tun

## Education/Outreach

US Fish & Wildlife Service	nutr; tun
WA Department of Fish & Wildlife	nutr
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
Washington Sea Grant	zemu; fesw; vlmi; brel; hyd; vhs; nutr; phrag; caul; tun; spar

## Enforcement

WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
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## Eradication

WA Department of Fish & Wildlife	zemu; nutr; tun
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## Monitoring

Northwest Indian Fisheries Commission	nutr
WA Department of Fish & Wildlife	zemu; nutr; tun

## Policy

Portland State University	nutr
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## Prevention

Northwest Indian Fisheries Commission	nutr
WA Department of Fish & Wildlife	zemu; nutr; tun
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Fish & Wildlife	nutr

## Research

US Geological Survey	zemu; vlmi; brel; hyd; nutr; tun; spar
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# Common Reed

Lead Organization	Priority Species Targeted
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## Control

Noxious Weed Control Board, Jefferson County	knap; phrag
Noxious Weed Control Board, King County	knap; phrag
Noxious Weed Control Board, King County	phrag
Noxious Weed Control Board, Kitsap County	phrag
Noxious Weed Control Board, Snohomish County	phrag
Noxious Weed Control Board, Whatcom County	phrag
WA Department of Agriculture	kudz; vlmi; brel; hyd; knap; phrag; spar
WA Department of Agriculture	phrag
WA Department of Transportation	knap; phrag

## Detection

Conservation District, Clallam County	phrag
Noxious Weed Control Board, Island County	phrag
Noxious Weed Control Board, Jefferson County	knap; phrag
Noxious Weed Control Board, King County	knap; phrag
Noxious Weed Control Board, Kitsap County	phrag
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, San Juan County	brel; phrag
Noxious Weed Control Board, Snohomish County	phrag
Noxious Weed Control Board, Thurston County	phrag
University of Washington	kudz; vlmi; brel; hyd; knap; phrag; spar
US Forest Service - Olympic National Forest	kudz; vlmi; brel; hyd; phrag; spar
WA Department of Agriculture	phrag
WA Department of Ecology	phrag
WA Department of Transportation	knap; phrag
WA State Parks & Recreation Commission	phrag

### Education/Outreach

Noxious Weed Control Board, Island County	phrag
Noxious Weed Control Board, Jefferson County	knap; phrag
Noxious Weed Control Board, King County	knap; phrag
Noxious Weed Control Board, Kitsap County	phrag
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, Snohomish County	phrag
Noxious Weed Control Board, Whatcom County	phrag
Oregon State University	kudz; knap; phrag
WA Department of Agriculture	phrag
WA Department of Transportation	knap; phrag
Washington Sea Grant	zemu; fesw; vlmi; brel; hyd; vhs; nutr; phrag; caul; tun; spar

### Eradication

Noxious Weed Control Board, Jefferson County	knap; phrag
Noxious Weed Control Board, King County	knap; phrag
Noxious Weed Control Board, Thurston County	phrag
Noxious Weed Control Board, Whatcom County	phrag
WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Agriculture	phrag
WA Department of Transportation	knap; phrag

### Funding

WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Ecology	phrag
WA Department of Transportation	knap; phrag

### Monitoring

Noxious Weed Control Board, Jefferson County	knap; phrag
Noxious Weed Control Board, King County	knap; phrag
Noxious Weed Control Board, Kitsap County	phrag
Noxious Weed Control Board, Snohomish County	phrag
Noxious Weed Control Board, Whatcom County	phrag
WA Department of Ecology	phrag
WA Department of Transportation	knap; phrag

### Policy

Noxious Weed Control Board, Jefferson County	knap; phrag
Noxious Weed Control Board, Kitsap County	phrag
Oregon State University	kudz; knap; phrag

**Prevention**

<b>Noxious Weed Control Board, Jefferson County</b>	knap; phrag
<b>Noxious Weed Control Board, King County</b>	knap; phrag
<b>Noxious Weed Control Board, Mason County</b>	brel; hyd; phrag; spar
<b>Noxious Weed Control Board, Snohomish County</b>	phrag
<b>Noxious Weed Control Board, Thurston County</b>	phrag
<b>WA Department of Transportation</b>	knap; phrag

Lead Organization	Priority Species Targeted
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## Control

Noxious Weed Control Board, Kitsap County	knap; spar
Noxious Weed Control Board, Snohomish County	spar
People for Puget Sound	spar
Swinomish Tribe	knap; spar
US Fish & Wildlife Service	brel; spar
WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Fish & Wildlife	spar
WA Department of Natural Resources	spar
WA State Parks & Recreation Commission	spar

## Detection

Nahkeeta Northwest	caul; spar; tun
Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, King County	spar
Noxious Weed Control Board, Kitsap County	knap; spar
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, Snohomish County	spar
People for Puget Sound	spar
University of Washington	kudz; vlmi; brel; hyd; knap; phrag; spar
US Forest Service - Olympic National Forest	kudz; vlmi; brel; hyd; phrag; spar
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Fish & Wildlife	spar
WA Department of Natural Resources	spar
WA State Parks & Recreation Commission	spar

Lead Organization	Priority Species Targeted
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## Education/Outreach

Conservation District, Clallam County	spar
Metro Parks Tacoma	zemu; tun; spar
Nahkeeta Northwest	caul; spar; tun
Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, King County	spar
Noxious Weed Control Board, Kitsap County	knap; spar
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, Snohomish County	spar
Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
People for Puget Sound	spar
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Natural Resources	spar
Washington Sea Grant	zemu; fesw; vlmi; brel; hyd; vhs; nutr; phrag; caul; tun; spar

## Enforcement

WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
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## Eradication

Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, Snohomish County	spar
People for Puget Sound	spar
Stillaguamish Tribe	spar
Swinomish Tribe	knap; spar
WA Department of Agriculture	spar
WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Fish & Wildlife	spar
WA State Parks & Recreation Commission	spar

## Funding

Noxious Weed Control Board, Snohomish County	spar
Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
US Fish & Wildlife Service	brel; spar
WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Fish & Wildlife	spar
WA Department of Natural Resources	spar

## Monitoring

Nahkeeta Northwest	caul; spar; tun
Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, King County	spar
Noxious Weed Control Board, Kitsap County	knap; spar
Noxious Weed Control Board, Snohomish County	spar
Noxious Weed Control Board, Thurston County	spar
People for Puget Sound	spar
Swinomish Tribe	knap; spar
WA Department of Fish & Wildlife	spar
WA State Parks & Recreation Commission	spar

## Policy

Noxious Weed Control Board, Kitsap County	knap; spar
Noxious Weed Control Board, Snohomish County	spar
Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
WA Department of Fish & Wildlife	spar

## Prevention

Noxious Weed Control Board, Island County	brel; spar
Noxious Weed Control Board, King County	spar
Noxious Weed Control Board, Kitsap County	knap; spar
Noxious Weed Control Board, Mason County	brel; hyd; phrag; spar
Noxious Weed Control Board, Snohomish County	spar
Noxious Weed Control Board, Thurston County	spar
WA Department of Fish & Wildlife	spar
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Natural Resources	spar

## Research

US Geological Survey	zemu; vlmi; brel; hyd; nutr; tun; spar
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# Tunicates

Lead Organization

Priority Species Targeted

## Control

Northwest Indian Fisheries Commission	zemu; tun
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Fish & Wildlife	zemu; nutr; tun

## Detection

Nahkeeta Northwest	caul; spar; tun
Northwest Indian Fisheries Commission	zemu; tun
Reef Environmental Education Foundation	tun
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
WA Department of Fish & Wildlife	zemu; nutr; tun

## Education/Outreach

Metro Parks Tacoma	zemu; tun; spar
Nahkeeta Northwest	caul; spar; tun
Northwest Indian Fisheries Commission	zemu; tun
Noxious Weed Control Board, Island County	tun
Reef Environmental Education Foundation	tun
US Fish & Wildlife Service	nutr; tun
WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
Washington Sea Grant	zemu; fesw; vlmi; brel; hyd; vhs; nutr; phrag; caul; tun; spar

## Enforcement

WA Department of Fish & Wildlife	brel; hyd; vhs; nutr; tun; spar
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## Eradication

Northwest Indian Fisheries Commission	zemu; tun
WA Department of Fish & Wildlife	zemu; nutr; tun

## Funding

Northwest Indian Fisheries Commission	zemu; tun
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## Monitoring

Nahkeeta Northwest	caul; spar; tun
Northwest Indian Fisheries Commission	zemu; tun
Reef Environmental Education Foundation	tun
WA Department of Fish & Wildlife	zemu; nutr; tun

## Policy

Northwest Indian Fisheries Commission	zemu; tun
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**Prevention****Northwest Indian Fisheries Commission**

zemu; tun

**WA Department of Fish & Wildlife**

brel; hyd; vhs; nutr; tun; spar

**WA Department of Fish & Wildlife**

zemu; nutr; tun

**Research****US Geological Survey**

zemu; vlmi; brel; hyd; nutr; tun; spar

# VHS type IVa

Lead Organization

Priority Species Targeted

## Control

WA Department of Fish & Wildlife

brel; hyd; vhs; nutr; tun; spar

## Detection

Northwest Indian Fisheries Commission

vhs

WA Department of Fish & Wildlife

brel; hyd; vhs; nutr; tun; spar

## Education/Outreach

WA Department of Fish & Wildlife

brel; hyd; vhs; nutr; tun; spar

Washington Sea Grant

zemu; fesw; vlmi; brel; hyd; vhs; nutr;  
phrag; caul; tun; spar

## Enforcement

WA Department of Fish & Wildlife

brel; hyd; vhs; nutr; tun; spar

## Prevention

WA Department of Fish & Wildlife

brel; hyd; vhs; nutr; tun; spar

# Variable Leaf Milfoil

## Lead Organization

## Priority Species Targeted

### Control

Noxious Weed Control Board, Pierce County	vlmi
Noxious Weed Control Board, Thurston County	vlmi
WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Ecology	vlmi

### Detection

Noxious Weed Control Board, Island County	kudz; vlmi; hyd
Noxious Weed Control Board, King County	kudz; vlmi; hyd
Noxious Weed Control Board, Kitsap County	vlmi
Noxious Weed Control Board, Thurston County	vlmi
University of Washington	kudz; vlmi; brel; hyd; knap; phrag; spar
US Forest Service - Olympic National Forest	kudz; vlmi; brel; hyd; phrag; spar
WA Department of Ecology	vlmi
WA Department of Fish & Wildlife	kudz; vlmi; brel; hyd
WA Department of Fish & Wildlife	vlmi

### Education/Outreach

Noxious Weed Control Board, Island County	kudz; vlmi; hyd
Noxious Weed Control Board, King County	kudz; vlmi; hyd
Noxious Weed Control Board, Kitsap County	vlmi
Noxious Weed Control Board, Mason County	vlmi
Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
Noxious Weed Control Board, Whatcom County	vlmi
WA Department of Fish & Wildlife	vlmi
Washington Sea Grant	zemu; fesw; vlmi; brel; hyd; vhs; nutr; phrag; caul; tun; spar

### Enforcement

WA Department of Fish & Wildlife	vlmi
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### Eradication

Noxious Weed Control Board, Pierce County	vlmi
Noxious Weed Control Board, Thurston County	vlmi
WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Ecology	vlmi

### Funding

Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
WA Department of Agriculture	kudz, vlmi; brel; hyd; knap; phrag; spar
WA Department of Ecology	vlmi

### Monitoring

Noxious Weed Control Board, Thurston County	vlmi
WA Department of Ecology	vlmi

### Policy

Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
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### Prevention

Noxious Weed Control Board, Island County	kudz; vlmi; hyd
Noxious Weed Control Board, King County	kudz; vlmi; hyd
Noxious Weed Control Board, Mason County	vlmi
Noxious Weed Control Board, Thurston County	vlmi
WA Department of Fish & Wildlife	kudz; vlmi; brel; hyd
WA Department of Fish & Wildlife	vlmi

### Research

US Geological Survey	zemu; vlmi; brel; hyd; nutr; tun; spar
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# Wood-boring Beetle

Lead Organization	Priority Species Targeted
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## Detection

WA Department of Agriculture	wbb
WA Department of Natural Resources	wbb

## Education/Outreach

WA Department of Natural Resources	wbb
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## Monitoring

WA Department of Natural Resources	wbb
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## Policy

WA Department of Natural Resources	wbb
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# Zebra, Quagga Mussel

Lead Organization

Priority Species Targeted

## Control

Northwest Indian Fisheries Commission

zemu; tun

WA Department of Fish & Wildlife

zemu; nutr; tun

## Detection

Northwest Indian Fisheries Commission

zemu; tun

Puget Sound Action Team

zemu

WA Department of Ecology

zemu

WA Department of Fish & Wildlife

zemu

WA Department of Fish & Wildlife

zemu; nutr; tun

WA State Parks & Recreation Commission

zemu

## Education/Outreach

Metro Parks Tacoma

zemu; tun; spar

Northwest Indian Fisheries Commission

zemu; tun

WA Department of Fish & Wildlife

zemu

WA State Parks & Recreation Commission

zemu

Washington Sea Grant

zemu; fesw; vlmi; brel; hyd; vhs; nutr;  
phrag; caul; tun; spar

## Enforcement

WA Department of Fish & Wildlife

zemu

## Eradication

Northwest Indian Fisheries Commission

zemu; tun

WA Department of Fish & Wildlife

zemu; nutr; tun

## Funding

Northwest Indian Fisheries Commission

zemu; tun

## Monitoring

Northwest Indian Fisheries Commission

zemu; tun

WA Department of Fish & Wildlife

zemu; nutr; tun

## Policy

Northwest Indian Fisheries Commission

zemu; tun

WA Department of Fish & Wildlife

zemu

## Prevention

Northwest Indian Fisheries Commission

zemu; tun

US Fish & Wildlife Service

zemu

WA Department of Fish & Wildlife

zemu

WA Department of Fish & Wildlife

zemu; nutr; tun

WA State Parks & Recreation Commission

zemu

**Research**

**US Geological Survey**

zemu; vlmi; brel; hyd; nutr; tun; spar

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## Table C Organizations with programs targeted at priority species

OrgLead	ProgSpecies	ProgType
<b>100th Meridian Initiative</b>	zemu	control; detection; education/outreach; eradication; monitoring; prevention; policy
<b>Conservation District; Pierce County</b>	brel	control; eradication
<b>Mountains to Sound Greenway Trust</b>	knap	detection; eradication; control; monitoring
<b>National Oceanic and Atmospheric Administration</b>	vhs	research
<b>Pacific Marine States Fisheries Commission</b>	caul; tun; zemu	prevention; policy; education/outreach
<b>Puget Sound Action Team</b>	zemu	detection
<b>Seattle Urban Nature</b>	phrag	monitoring; education/outreach
<b>US Forest Service - Mount Baker - Snoqualmie National Forest</b>	knap	prevention; detection; control; monitoring; education/outreach; funding
<b>WA Department of Fish and Wildlife</b>	nutr	prevention; control; education/outreach
	caul; tun; zemu	prevention; policy
	nutr	prevention; detection; eradication; control; monitoring; education/outreach; enforcement
	tun	prevention; detection; eradication; control; monitoring; education/outreach; enforcement
	kudz; vlmi; brel; hyd	prevention; detection
	zemu	prevention; detection; education/outreach; policy; enforcement
	spar, phrag	prevention; detection; eradication; control; monitoring; funding; policy; education/outreach; enforcement
	knap	prevention; detection; control
	vhs	detection
	<b>Washington Conservation Commission</b>	multiple
<b>Washington Invasive Species Council</b>	multiple	prevention; education/outreach; policy; funding
<b>City</b>		

OrgLead	ProgSpecies	ProgType
<b>Bellingham Parks &amp; Recreation Department</b>	knap	prevention; detection; eradication; control; monitoring
<b>Metro Parks Tacoma</b>	zemu; tun; spar	education/outreach

## County

<b>Conservation District, Clallam County</b>	spar	education/outreach
	phrag	detection
	knap	prevention; detection; education/outreach
<b>Conservation District, Jefferson County</b>	brcl	eradication; control; monitoring; education/outreach
<b>King County Lakes Stewardship</b>	hyd	eradication; monitoring
<b>Noxious Weed Control Board, Clallam County</b>	knap	control; monitoring
<b>Noxious Weed Control Board, Island County</b>	phrag	detection; education/outreach
	kudz; vlmi; hyd	prevention; detection; education/outreach
	knap	prevention; detection; eradication; education/outreach
	tun	education/outreach
	spar	prevention; detection; eradication; monitoring; education/outreach
	brcl	prevention; detection; eradication; monitoring; education/outreach
	phrag	prevention; detection; eradication; control; monitoring; education/outreach; policy
<b>Noxious Weed Control Board, Jefferson County</b>	spar	prevention; detection; monitoring; education/outreach
	brcl	prevention; detection; eradication; control; monitoring; education/outreach
	knap; phrag	prevention; detection; eradication; control; monitoring; education/outreach
	kudz; vlmi; hyd	prevention; detection; education/outreach
	phrag	control
	knap	control

OrgLead	ProgSpecies	ProgType
<b>Noxious Weed Control Board, Kitsap County</b>	kudz	prevention; detection; education/outreach
	knap; spar	prevention; detection; control; monitoring; education/outreach; policy
	hyd	prevention; detection; monitoring; education/outreach; policy
	phrag	detection; control; monitoring; education/outreach; policy
	brel	control
	vlni	detection; education/outreach
<b>Noxious Weed Control Board, Lewis County</b>	brel; hyd; kudz; vlni	detection; education/outreach
	knap	control; monitoring
<b>Noxious Weed Control Board, Mason County</b>	vlni	prevention; education/outreach
	brel; hyd; phrag; spar	prevention; detection; education/outreach
	knap	prevention; detection; eradication; control; education/outreach
<b>Noxious Weed Control Board, Pierce County</b>	vlni	eradication; control
	knap	control; education/outreach; enforcement
<b>Noxious Weed Control Board, San Juan County</b>	brel; phrag	detection
	knap; spar	detection; control; monitoring
<b>Noxious Weed Control Board, Skagit County</b>	spar	control; eradication
	knap	control
<b>Noxious Weed Control Board, Snohomish County</b>	phrag	prevention; detection; control; monitoring; education/outreach
	knap	detection; control; monitoring; funding
	kudz	detection; education/outreach
	spar	prevention; detection; eradication; control; monitoring; education/outreach; funding; policy
	hyd	prevention
<b>Noxious Weed Control Board, Thurston County</b>	hyd	prevention

OrgLead	ProgSpecies	ProgType
<b>Noxious Weed Control Board, Thurston County</b>	knap	prevention; detection; eradication; control; monitoring; education/outreach
	phrag	prevention; detection; eradication
	vlimi	prevention; detection; eradication; control; monitoring
	spar	prevention; monitoring
<b>Noxious Weed Control Board, Whatcom County</b>	brel	detection; monitoring; education/outreach
	hyd	detection; education/outreach
	knap	prevention; detection; eradication; control; monitoring; education/outreach
	phrag	eradication; control; monitoring; education/outreach
	vlimi	education/outreach
	spar	Eradication; control; detection; education/outreach; monitoring; prevention
<b>San Juan County Public Works</b>	knap	detection; control; monitoring
<b>Skagit County Public Works</b>	brel	control; monitoring
<b>Snohomish County Surface Water Management</b>	brel	prevention; control; eradication; monitoring
	hydr	prevention; education/outreach

**Federal**

<b>National Park, Mount Rainier</b>	knap	detection; monitoring; control
<b>National Park, North Cascades</b>	knap	prevention; detection; control
<b>National Park, Olympic</b>	knap	control
<b>US Department of Agriculture</b>	nutr	control
	caul; hyd	prevention; detection; control; eradication; education/outreach; monitoring; enforcement
<b>US Fish &amp; Wildlife Service</b>	spar	control; funding; education/outreach
	nutr; tun	education/outreach; control; funding
	zemu	prevention; detection; funding; education/outreach
	vhs	detection

OrgLead	ProgSpecies	ProgType
US Fish & Wildlife Service	caul; zemu	control; education/outreach; monitoring; policy; prevention; research
US Forest Service - Olympic National Forest	kudz; vlmi; brel; hyd; phrag; spar	detection
	knap	prevention; detection; eradication; control; monitoring
US Geological Survey	zemu; vlmi; brel; hyd; nutr; tun; spar	other: tracking distribution

## NGO

Cascade Land Conservancy	multiple	eradication; control; education/outreach
Nahkeeta Northwest	caul; spar; tun	prevention; detection; monitoring; education/outreach
People for Puget Sound	spar	detection; eradication; control; monitoring; education/outreach
Reef Environmental Education Foundation	tun	detection; monitoring; education/outreach

## Research

Oregon State University	kudz; knap; phrag	education/outreach; policy
Portland State University	nutr	policy
University of Washington	brel	prevention; education/outreach; research
	brel	education/outreach
	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar	education/outreach
	kudz; vlmi; brel; hyd; knap; phrag; spar	detection; education/outreach
	spar	research; funding
Washington State University	knap	control; education/outreach; research

## State

Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar	education/outreach; funding; policy
Puget Sound Partnership	spar; tun; nutr	prevention; education/outreach
WA Department of Agriculture	gymo	detection
	wbb	detection; education

OrgLead	ProgSpecies	ProgType
<b>WA Department of Agriculture</b>	knap	detection; eradication; control; funding
	kudz	detection; education/outreach; funding
	phrag	detection; eradication; control; education/outreach
	knap; phrag	eradication; control; funding
	spar	eradication
<b>WA Department of Ecology</b>	zemu	detection
	vlni	detection; eradication; control; monitoring; funding
	phrag	detection; monitoring; funding
	hyd	detection; eradication; monitoring; funding
	brel	detection; control; monitoring; funding; research
	spar	control; eradication
<b>WA Department of Natural Resources</b>	knap; spar;	detection; prevention; control; eradication; monitoring; education/outreach; funding
	brel; spar;	detection; prevention; control; eradication; monitoring; education/outreach; funding
	wbb	detection; monitoring; education/outreach; policy
	knap	control; eradication
<b>WA Department of Transportation</b>	kudz; brel; hyd	detection; monitoring; education/outreach
	knap; phrag	prevention; detection; eradication; control; monitoring; education/outreach; funding
<b>WA State Parks &amp; Recreation Commission</b>	knap	prevention; detection; eradication; control; monitoring; education/outreach
	zemu	prevention; detection; education/outreach
	spar	detection; eradication; control; monitoring
	phrag	detection; ?

**Tribe**

<b>Northwest Indian Fisheries Commission</b>	vhs	detection
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OrgLead	ProgSpecies	ProgType
<b>Northwest Indian Fisheries Commission</b>	zemu; tun	prevention; detection; eradication; control; monitoring; education/outreach; funding; policy
	nutr	prevention; detection; control; monitoring
	brel; hyd	prevention; policy
<b>Skokomish Tribe</b>	tun; zemu	prevention; detection; control
<b>Stillaguamish Tribe</b>	spar	eradication
<b>Swinomish Tribe</b>	knap; spar	control; eradication; monitoring

# Table F. Organizations Working on Priority Species

# CONTROL

Organization	All Priority Species Targeted
<b>City</b>	
<b>Bellingham Parks &amp; Recreation Department</b>	knap
<b>County</b>	
<b>Conservation District, Jefferson County</b>	brel
<b>Noxious Weed Control Board, Clallam County</b>	knap
<b>Noxious Weed Control Board, Jefferson County</b>	knap; phrag
<b>Noxious Weed Control Board, King County</b>	knap
	phrag
	brel
	knap; phrag
<b>Noxious Weed Control Board, Kitsap County</b>	knap; spar
	phrag
	brel
<b>Noxious Weed Control Board, Lewis County</b>	knap
<b>Noxious Weed Control Board, Mason County</b>	knap
<b>Noxious Weed Control Board, Pierce County</b>	vlmi
	knap
<b>Noxious Weed Control Board, San Juan County</b>	knap; spar
<b>Noxious Weed Control Board, Skagit County</b>	spar
	knap
<b>Noxious Weed Control Board, Snohomish County</b>	phrag
	spar
	knap
<b>Noxious Weed Control Board, Thurston County</b>	vlmi
	knap
<b>Noxious Weed Control Board, Whatcom County</b>	knap
	phrag
	spar
<b>San Juan County Public Works</b>	knap
<b>Skagit County Public Works</b>	brel
<b>Snohomish County Surface Water Management</b>	brel

**Federal**

<b>National Park, Mount Rainier</b>	knap
<b>National Park, North Cascades</b>	knap
<b>National Park, Olympic</b>	knap
<b>US Department of Agriculture</b>	caul; hyd nutr
<b>US Fish &amp; Wildlife Service</b>	spar nutr; tun caul; zemu
<b>US Forest Service - Olympic National Forest</b>	knap

**NGO**

<b>Cascade Land Conservancy</b>	multiple
<b>People for Puget Sound</b>	spar

**Research**

<b>Washington State University</b>	knap
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**State**

<b>WA Department of Agriculture</b>	phrag knap knap; phrag
<b>WA Department of Ecology</b>	vlmi brel spar
<b>WA Department of Natural Resources</b>	knap; spar; knap brel; spar;
<b>WA Department of Transportation</b>	knap; phrag
<b>WA State Parks &amp; Recreation Commission</b>	spar knap

**Tribe**

<b>Northwest Indian Fisheries Commission</b>	zemu; tun nutr
<b>Skokomish Tribe</b>	tun; zemu
<b>Swinomish Tribe</b>	knap; spar

Organization

All Priority Species Targeted

## City

**Bellingham Parks & Recreation Department**

knap

## County

**Conservation District, Clallam County**

knap

phrag

**Noxious Weed Control Board, Island County**

brel

phrag

kudz; vlmi; hyd

knap

spar

**Noxious Weed Control Board, Jefferson County**

knap; phrag

**Noxious Weed Control Board, King County**

brel

knap; phrag

kudz; vlmi; hyd

spar

**Noxious Weed Control Board, Kitsap County**

kudz

phrag

vlmi

knap; spar

hyd

**Noxious Weed Control Board, Lewis County**

brel; hyd; kudz; vlmi

**Noxious Weed Control Board, Mason County**

knap

brel; hyd; phrag; spar

**Noxious Weed Control Board, San Juan County**

brel; phrag

knap; spar

**Noxious Weed Control Board, Snohomish County**

spar

phrag

kudz

knap

**Noxious Weed Control Board, Thurston County**

phrag

vlmi

knap

**Noxious Weed Control Board, Whatcom County**

brel

knap

spar

hyd

**San Juan County Public Works**

knap

**Federal**

National Park, Mount Rainier	knap
National Park, North Cascades	knap
US Department of Agriculture	caul; hyd
US Fish & Wildlife Service	vhs
	zemu
US Forest Service - Olympic National Forest	kudz; vlmi; brel; hyd; phrag; spar
	knap

**NGO**

Nahkeeta Northwest	caul; spar; tun
People for Puget Sound	spar
Reef Environmental Education Foundation	tun

**Research**

University of Washington	kudz; vlmi; brel; hyd; knap; phrag; spar
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**State**

WA Department of Agriculture	gymo
	phrag
	wbb
	kudz
	knap
WA Department of Ecology	hyd
	vlmi
	zemu
	phrag
	brel
WA Department of Natural Resources	brel; spar;
	wbb
	knap; spar;
WA Department of Transportation	knap; phrag
	kudz; brel; hyd
WA State Parks & Recreation Commission	knap
	phrag
	zemu
	spar

**Tribe****Northwest Indian Fisheries Commission**

vhs

nutr

zemu; tun

**Skokomish Tribe**

tun; zemu

# EDUCATION and OUTREACH

Organization

All Priority Species Targeted

City

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**Metro Parks Tacoma**

zemu; tun; spar

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**County**

<b>Conservation District, Clallam County</b>	knap
	spar
<b>Conservation District, Jefferson County</b>	brel
<b>Noxious Weed Control Board, Island County</b>	brel
	knap
	spar
	kudz; vlmi; hyd
	phrag
	tun
<b>Noxious Weed Control Board, Jefferson County</b>	knap; phrag
<b>Noxious Weed Control Board, King County</b>	spar
	brel
	knap; phrag
	kudz; vlmi; hyd
<b>Noxious Weed Control Board, Kitsap County</b>	vlmi
	knap; spar
	phrag
	kudz
	hyd
<b>Noxious Weed Control Board, Lewis County</b>	brel; hyd; kudz; vlmi
<b>Noxious Weed Control Board, Mason County</b>	brel; hyd; phrag; spar
	knap
<b>Noxious Weed Control Board, Pierce County</b>	vlmi
	knap
	spar
<b>Noxious Weed Control Board, Snohomish County</b>	phrag
	kudz
	knap
<b>Noxious Weed Control Board, Thurston County</b>	knap
<b>Noxious Weed Control Board, Whatcom County</b>	brel
	hyd
	knap
	phrag
	spar
	vlmi
<b>Snohomish County Surface Water Management</b>	hydr

**Federal**

<b>US Department of Agriculture</b>	caul; hyd
<b>US Fish &amp; Wildlife Service</b>	caul; zemu
	zemu
	nutr; tun
	spar

**NGO**

<b>Cascade Land Conservancy</b>	multiple
<b>Nahkeeta Northwest</b>	caul; spar; tun
<b>People for Puget Sound</b>	spar
<b>Reef Environmental Education Foundation</b>	tun

**Research**

<b>Oregon State University</b>	kudz; knap; phrag
<b>University of Washington</b>	kudz; vlmi; brel; hyd; knap; phrag; spar
	brel
	brel
	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; t
<b>Washington State University</b>	knap

**State**

<b>Noxious Weed Control Board, Washington State</b>	kudz; vlmi; brel; hyd; knap; spar
<b>Puget Sound Partnership</b>	spar; tun; nutr
<b>WA Department of Agriculture</b>	phrag
	kudz
<b>WA Department of Natural Resources</b>	brel; spar;
	wbb
	knap; spar;
<b>WA Department of Transportation</b>	kudz; brel; hyd
	knap; phrag
<b>WA State Parks &amp; Recreation Commission</b>	zemu
	knap

**Tribe**

<b>Northwest Indian Fisheries Commission</b>	zemu; tun
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# ERADICATION

Organization

All Priority Species Targeted

## City

Bellingham Parks & Recreation Department	knap
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## County

Conservation District, Jefferson County	brel
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King County Lakes Stewardship	hyd
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Noxious Weed Control Board, Island County	knap
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	brel
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	spar
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Noxious Weed Control Board, Jefferson County	knap; phrag
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Noxious Weed Control Board, King County	knap; phrag
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	brel
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Noxious Weed Control Board, Mason County	knap
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Noxious Weed Control Board, Pierce County	vlmi
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Noxious Weed Control Board, Skagit County	spar
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Noxious Weed Control Board, Snohomish County	spar
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Noxious Weed Control Board, Thurston County	vlmi
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	knap
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	phrag
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Noxious Weed Control Board, Whatcom County	spar
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	phrag
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	knap
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Snohomish County Surface Water Management	brel
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## Federal

US Department of Agriculture	caul; hyd
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US Forest Service - Olympic National Forest	knap
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## NGO

Cascade Land Conservancy	multiple
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People for Puget Sound	spar
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**State****WA Department of Agriculture**

phrag

knap

knap; phrag

spar

**WA Department of Ecology**

vlmi

hyd

spar

**WA Department of Natural Resources**

knap

brel; spar;

knap; spar;

**WA Department of Transportation**

knap; phrag

**WA State Parks & Recreation Commission**

spar

knap

**Tribe****Northwest Indian Fisheries Commission**

zemu; tun

**Stillaguamish Tribe**

spar

**Swinomish Tribe**

knap; spar

# FUNDING

Organization

All Priority Species Targeted

## County

Noxious Weed Control Board, Snohomish County

knap

spar

## Federal

US Fish & Wildlife Service

spar

zemu

nutr; tun

## Research

University of Washington

spar

## State

Noxious Weed Control Board, Washington State

kudz; vlmi; brel; hyd; knap; spar

WA Department of Agriculture

knap; phrag

kudz

knap

WA Department of Ecology

brel

hyd

phrag

vlmi

WA Department of Natural Resources

knap; spar;

brel; spar;

WA Department of Transportation

knap; phrag

## Tribe

Northwest Indian Fisheries Commission

zemu; tun

# MONITORING

Organization

All Priority Species Targeted

## City

**Bellingham Parks & Recreation Department** knap

## County

**Conservation District, Jefferson County** brel

**Noxious Weed Control Board, Clallam County** knap

**Noxious Weed Control Board, Jefferson County** knap; phrag

**Noxious Weed Control Board, King County** knap

phrag

brel

knap; phrag

**Noxious Weed Control Board, Kitsap County** knap; spar

phrag

brel

**Noxious Weed Control Board, Lewis County** knap

**Noxious Weed Control Board, Mason County** knap

**Noxious Weed Control Board, Pierce County** vlmi

knap

**Noxious Weed Control Board, San Juan County** knap; spar

**Noxious Weed Control Board, Skagit County** spar

knap

**Noxious Weed Control Board, Snohomish County** phrag

spar

knap

**Noxious Weed Control Board, Thurston County** vlmi

knap

**Noxious Weed Control Board, Whatcom County** knap

phrag

spar

**San Juan County Public Works** knap

**Skagit County Public Works** brel

**Snohomish County Surface Water Management** brel

**Federal**

National Park, Mount Rainier	knap
National Park, North Cascades	knap
National Park, Olympic	knap
US Department of Agriculture	caul; hyd
	nutr
US Fish & Wildlife Service	spar
	nutr; tun
	caul; zemu
US Forest Service - Olympic National Forest	knap

**NGO**

Cascade Land Conservancy	multiple
People for Puget Sound	spar

**Research**

Washington State University	knap
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**State**

WA Department of Agriculture	phrag
	knap
	knap; phrag
WA Department of Ecology	vlmi
	brl
	spar
WA Department of Natural Resources	knap; spar;
	knap
	brl; spar;
WA Department of Transportation	knap; phrag
WA State Parks & Recreation Commission	spar
	knap

**Tribe**

Northwest Indian Fisheries Commission	zemu; tun
	nutr
Skokomish Tribe	tun; zemu
Swinomish Tribe	knap; spar

## Organization

## All Priority Species Targeted

### County

Noxious Weed Control Board, Jefferson County	knap; phrag
Noxious Weed Control Board, Kitsap County	knap; spar
	hyd
	phrag
Noxious Weed Control Board, Snohomish County	spar

### Federal

US Fish & Wildlife Service	caul; zemu
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### Research

Oregon State University	kudz; knap; phrag
Portland State University	nutr

### State

Noxious Weed Control Board, Washington State	kudz; vlmi; brel; hyd; knap; spar
WA Department of Natural Resources	wbb

### Tribe

Northwest Indian Fisheries Commission	zemu; tun
	brel; hyd

# PREVENTION

Organization

All Priority Species Targeted

## City

Bellingham Parks & Recreation Department

knap

## County

Conservation District, Clallam County

knap

Noxious Weed Control Board, Island County

kudz; vlmi; hyd

knap

brel

spar

Noxious Weed Control Board, Jefferson County

knap; phrag

Noxious Weed Control Board, King County

brel

knap; phrag

kudz; vlmi; hyd

spar

Noxious Weed Control Board, Kitsap County

hyd

knap; spar

kudz

Noxious Weed Control Board, Mason County

vlmi

knap

brel; hyd; phrag; spar

Noxious Weed Control Board, Snohomish County

spar

phrag

Noxious Weed Control Board, Thurston County

knap

phrag

spar

vlmi

hyd

Noxious Weed Control Board, Whatcom County

knap

spar

Snohomish County Surface Water Management

hydr

brel

## Federal

National Park, North Cascades

knap

US Department of Agriculture

caul; hyd

US Fish & Wildlife Service

zemu

caul; zemu

US Forest Service - Olympic National Forest

knap

**NGO**

<b>Nahkeeta Northwest</b>	caul; spar; tun
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**Research**

<b>University of Washington</b>	brel
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**State**

<b>Puget Sound Partnership</b>	spar; tun; nutr
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<b>WA Department of Natural Resources</b>	brel; spar;
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	knap; spar;
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<b>WA Department of Transportation</b>	knap; phrag
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<b>WA State Parks &amp; Recreation Commission</b>	zemu
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	knap
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**Tribe**

<b>Northwest Indian Fisheries Commission</b>	nutr
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	brel; hyd
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	zemu; tun
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<b>Skokomish Tribe</b>	tun; zemu
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# Table G Spatial Extent of Programs

Organization	Program Type	ProgSpecies
<b>City, Bellingham</b>		
Bellingham Parks & Recreation Department	prevention; detection; eradication; control; monitoring	knap
<b>City, Seattle</b>		
Seattle Urban Nature	monitoring; education/outreach	phrag
<b>City, Tacoma</b>		
Metro Parks Tacoma	education/outreach	zemu; tun; spar
<b>County, Clallam</b>		
Conservation District, Clallam County	prevention; detection; education/outreach	knap
	detection	phrag
	education/outreach	spar
Noxious Weed Control Board, Clallam County	control; monitoring	knap
<b>County, Island</b>		
Noxious Weed Control Board, Island County	prevention; detection; eradication; education/outreach	knap
	prevention; detection; eradication; monitoring; education/outreach	brel
	prevention; detection; education/outreach	kudz; vlmi; hyd
	detection; education/outreach	phrag
	education/outreach	tun
	prevention; detection; eradication; monitoring; education/outreach	spar
<b>County, Jefferson</b>		
Conservation District, Jefferson County	eradication; control; monitoring; education/outreach	brel
Noxious Weed Control Board, Jefferson County	prevention; detection; eradication; control; monitoring; education/outreach; policy	knap; phrag

Organization	Program Type	ProgSpecies
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### County, King

King County Lakes Stewardship	eradication; monitoring	hyd
Noxious Weed Control Board, King County	prevention; detection; monitoring; education/outreach	spar
	control	knap
	control	phrag
	prevention; detection; education/outreach	kudz; vlmi; hyd
	prevention; detection; eradication; control; monitoring; education/outreach	knap; phrag
	prevention; detection; eradication; control; monitoring; education/outreach	brel
WA Department of Ecology	detection; eradication; monitoring; funding	hyd

### County, Kitsap

Noxious Weed Control Board, Kitsap County	control	brel
	detection; control; monitoring; education/outreach; policy	phrag
	prevention; detection; monitoring; education/outreach; policy	hyd
	prevention; detection; education/outreach	kudz
	detection; education/outreach	vlmi
	prevention; detection; control; monitoring; education/outreach; policy	knap; spar

### County, Lewis

Noxious Weed Control Board, Lewis County	control; monitoring	knap
	detection; education/outreach	brel; hyd; kudz; vlmi

### County, Mason

Noxious Weed Control Board, Mason County	prevention; detection; eradication; control; education/outreach	knap
	prevention; detection; education/outreach	brel; hyd; phrag; spar
	prevention; education/outreach	vlmi

### County, Pierce

Noxious Weed Control Board, Pierce County	control; education/outreach; enforcement	knap
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Organization	Program Type	ProgSpecies
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### County, Pierce (Ohop Lake)

Conservation District; Pierce County	control; eradication	brel
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### County, Pierce; County, Thurston

Noxious Weed Control Board, Pierce County	eradication; control	vlmi
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WA Department of Ecology	detection; eradication; control; monitoring; funding	vlmi
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### County, San Juan

Noxious Weed Control Board, San Juan County	detection; control; monitoring	knap; spar
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	detection	brel; phrag
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San Juan County Public Works	detection; control; monitoring	knap
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### County, Skagit

Noxious Weed Control Board, Skagit County	control	knap
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	control; eradication	spar
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Skagit County Public Works	control; monitoring	brel
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### County, Skagit (Padilla Bay, Samish Bay)

WA Department of Ecology	control; eradication	spar
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### County, Snohomish

Noxious Weed Control Board, Snohomish County	prevention; detection; eradication; control; monitoring; education/outreach; funding; policy	spar
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	prevention; detection; control; monitoring; education/outreach	phrag
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	detection; education/outreach	kudz
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	detection; control; monitoring; funding	knap
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### County, Thurston

Noxious Weed Control Board, Thurston County	prevention; detection; eradication; control; monitoring; education/outreach	knap
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	prevention; detection; eradication	phrag
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	prevention	hyd
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	prevention; detection; eradication; control; monitoring	vlmi
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	prevention; monitoring	spar
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Organization	Program Type	ProgSpecies
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## County, Whatcom

<b>Noxious Weed Control Board, Whatcom County</b>	detection; monitoring; education/outreach	brel
	detection; education/outreach	hyd
	eradication; control; monitoring; education/outreach	phrag
	education/outreach	vlmi
	prevention; detection; eradication; control; monitoring; education/outreach	knap

## national

<b>100th Meridian Initiative</b>	control; detection; education/outreach; eradication; monitoring; prevention; policy	zemu
<b>US Department of Agriculture</b>	prevention; detection; control; eradication; education/outreach; monitoring; enforcement	caul; hyd
<b>US Fish &amp; Wildlife Service</b>	control; education/outreach; monitoring; policy; prevention; research	caul; zemu

## National Forest, Olympic

<b>US Forest Service - Olympic National Forest</b>	prevention; detection; eradication; control; monitoring	knap
	detection	kudz; vlmi; brel; hyd; phrag; spar

## National Park, Mount Rainier

<b>National Park, Mount Rainier</b>	detection; monitoring; control	knap
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## National Park, North Cascades

<b>National Park, North Cascades</b>	prevention; detection; control	knap
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## National Park, Olympic

<b>National Park, Olympic</b>	control	knap
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## Pacific Coast

<b>Pacific Marine States Fisheries Commission</b>	prevention; policy; education/outreach	caul; tun; zemu
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## Puget Sound

<b>WA Department of Fish and Wildlife</b>	prevention; detection; eradication; control; monitoring; education/outreach; enforcement	tun
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Organization	Program Type	ProgSpecies
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## Puget Sound Basin

<b>Nahkeeta Northwest</b>	prevention; detection; monitoring; education/outreach	caul; spar; tun
<b>Northwest Indian Fisheries Commission</b>	prevention; policy	brel; hyd
	prevention; detection; control; monitoring	nutr
	prevention; detection; eradication; control; monitoring; education/outreach; funding; policy	zemu; tun
<b>People for Puget Sound</b>	detection; eradication; control; monitoring; education/outreach	spar
<b>Puget Sound Action Team</b>	detection	zemu
<b>Puget Sound Partnership</b>	prevention; education/outreach	spar; tun; nutr
<b>Reef Environmental Education Foundation</b>	detection; monitoring; education/outreach	tun

## Regional

<b>Cascade Land Conservancy</b>	eradication; control; education/outreach	multiple
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## Reservation, Skokomish

<b>Skokomish Tribe</b>	prevention; detection; control	tun; zemu
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## Reservation, Stillaguamish

<b>Stillaguamish Tribe</b>	eradication	spar
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## Reservation, Swinomish

<b>Swinomish Tribe</b>	control; eradication; monitoring	knap; spar
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## Snohomish County

<b>Snohomish County Surface Water Management</b>	prevention; control; eradication; monitoring	brel
	prevention; education/outreach	hydr

Organization	Program Type	ProgSpecies
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## Washington State

<b>National Oceanic and Atmospheric Administration</b>	research	vhs
<b>Northwest Indian Fisheries Commission</b>	detection	vhs
<b>Noxious Weed Control Board, Washington State</b>	education/outreach; funding; policy	kudz; vlmi; brel; hyd; knap; spar
<b>Oregon State University</b>	education/outreach; policy	kudz; knap; phrag
<b>Portland State University</b>	policy	nutr
<b>University of Washington</b>	prevention; education/outreach; research	brel
	detection; education/outreach	kudz; vlmi; brel; hyd; knap; phrag; spar
	research; funding	spar
	education/outreach	brel
	education/outreach	zemu; fesw; vlmi; brel; hyd; nutr; phrag; caul; tun; spar
<b>US Department of Agriculture</b>	control	nutr
<b>US Fish &amp; Wildlife Service</b>	prevention; detection; funding; education/outreach	zemu
	education/outreach; control; funding	nutr; tun
	detection	vhs
	control; funding; education/outreach	spar
<b>US Geological Survey</b>	other: tracking distribution	zemu; vlmi; brel; hyd; nutr; tun; spar
<b>WA Department of Agriculture</b>	detection; eradication; control; education/outreach	phrag
	detection; education	wbb
	eradication; control; funding	knap; phrag
	detection; education/outreach; funding	kudz
	detection; eradication; control; funding	knap
	detection	gymo
	eradication	spar
<b>WA Department of Ecology</b>	detection; control; monitoring; funding; research	brel
	detection; monitoring; funding	phrag
	detection	zemu
<b>WA Department of Fish and Wildlife</b>	prevention; detection; control	knap
	detection	vhs

Organization	Program Type	ProgSpecies
<b>WA Department of Fish and Wildlife</b>	prevention; detection; eradication; control; monitoring; education/outreach; enforcement	nutr
	prevention; detection	kudz; vlmi; brel; hyd
	prevention; policy	caul; tun; zemu
	prevention; detection; education/outreach; policy; enforcement	zemu
	prevention; detection; eradication; control; monitoring; funding; policy; education/outreach; enforcement	spar, phrag
	prevention; control; education/outreach	nutr
<b>WA Department of Natural Resources</b>	detection; prevention; control; eradication; monitoring; education/outreach; funding	knap; spar;
	detection; prevention; control; eradication; monitoring; education/outreach; funding	brel; spar;
	detection; monitoring; education/outreach; policy	wbb
<b>WA Department of Transportation</b>	detection; monitoring; education/outreach	kudz; brel; hyd
	prevention; detection; eradication; control; monitoring; education/outreach; funding	knap; phrag
<b>WA State Parks &amp; Recreation Commission</b>	prevention; detection; education/outreach	zemu
	detection; eradication; control; monitoring	spar
	detection; ?	phrag
	prevention; detection; eradication; control; monitoring; education/outreach	knap
<b>Washington Conservation Commission</b>	prevention; detection; eradication; control; education/outreach	multiple
<b>Washington Invasive Species Council</b>	prevention; education/outreach; policy; funding	multiple
<b>Washington State University</b>	control; education/outreach; research	knap

### Washington State (on DNR agriculture and grazing lands)

<b>WA Department of Natural Resources</b>	control; eradication	knap
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Organization	Program Type	ProgSpecies
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**Whatcom County**

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<b>Noxious Weed Control Board, Whatcom County</b>	Eradication; control; detection; education/outreach; monitoring; prevention	spar
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**WRIA 7 (near Mountains to Sound Greenway)**

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<b>Mountains to Sound Greenway Trust</b>	detection; eradication; control; monitoring	knap
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