

Component	Factors	Sub-factors	Name	Source	Data link	Information link	type	raster resolution	
Base Data			Watershed boundaries	U.S. Department of Agriculture, Natural Resources Conservation Service, National Cartography and Geospatial Center. 2009. <i>Complete Digital Hydrologic Unit Boundary Layer to the Subwatershed (12-digit) 6th level</i> . Vector digital data. Fort Worth, Texas: U.S. Department of Agriculture.	<a href="ftp://ftp.ftw.nrcs.usda.gov/wbd/">ftp://ftp.ftw.nrcs.usda.gov/wbd/</a>		vector: polygon	1:24000	
Focal Fish Species	Presence/absence		BLM 5th-field Fish Distribution	U.S. Bureau of Land Management. 2012. BLM 5th-field Fish Distribution. Unpublished Excel spreadsheet. U.S. Bureau of Land Management.	Unpublished		spreadsheet		
	Population size		Draft Pacific lamprey population data	U.S. Fish and Wildlife Service. 2010a. Pacific Lamprey (Lampetra tridentata) Draft Assessment and Template for Conservation Measures. Portland, OR: U.S. Fish and Wildlife Service, October.; ———. 2010b. Pacific Lamprey Current Population Size. Vector digital data. Portland, OR: U.S. Fish and Wildlife Service, October.	Draft, not yet published	<a href="http://www.fws.gov/filedownloads/ftp_lamprevlit/USFW%20Pacific%20Lamprey%20Draft%20Assessment%20and%20Template%20for%20Conservation%20Measures%2010.29.10.pdf">http://www.fws.gov/filedownloads/ftp_lamprevlit/USFW%20Pacific%20Lamprey%20Draft%20Assessment%20and%20Template%20for%20Conservation%20Measures%2010.29.10.pdf</a>	vector: polygon		
	Stream Habitat Density		Pink salmon linear habitat	StreamNet, Pacific States Marine Fisheries Commission. 2010. StreamNet Generalized Fish Distribution, All Species Combined (July 2010). Vector digital data. Portland, OR: StreamNet, Pacific States Marine Fisheries Commission, July 7. <a href="http://www.streamnet.org/mapping_apps.cfm">http://www.streamnet.org/mapping_apps.cfm</a> .	<a href="http://www.streamnet.org/mapping_apps.cfm">http://www.streamnet.org/mapping_apps.cfm</a>	<a href="ftp://ftp.streamnet.org/pub/streamnet/gisdata/map_data_biological/FishDist_MSHv3_January2012/FishD_AllSpecies_January2012.xml">ftp://ftp.streamnet.org/pub/streamnet/gisdata/map_data_biological/FishDist_MSHv3_January2012/FishD_AllSpecies_January2012.xml</a>	vector: line		
	Intrinsic potential		CLAMS Intrinsic Potential data Data	Miller, Dan, Kelly Burnett, Kelly Christiansen, and Sharon Clarke. Coastal Landscape Analysis and Modeling Study Stream Intrinsic Potential Data. Vector digital data. Corvallis, OR: USDA Forest Service, Pacific Northwest Region.	<a href="http://www.fsl.orst.edu/clams/data_dem10.html">http://www.fsl.orst.edu/clams/data_dem10.html</a>				
			Additional Salmon and Steelhead Intrinsic Potential Data	Earth Systems Institute. Unpublished. Chinook, Coho, and Steelhead Intrinsic Potential. Vector digital data via email correspondence from Dr. Kelly Christiansen.	Not available for download online				
Vulnerability to Climate Change	Vulnerability to Air Temperature Change		Max temp for July, August. Historic, A1B 2010-2039; 2030 - 2059; 2080 - 2099	Climate Impacts Group. 2009a. <i>Delta Method Runs of Tmax monthly averages for July, August, using the A1B Scenario</i> . Raster digital data. Seattle, WA: University of Washington.	<a href="http://www.hydro.washington.edu/2860/products/primary_data/">http://www.hydro.washington.edu/2860/products/primary_data/</a>		raster	6097m	
			Base flow index	Wolock, David. 2003. <i>Base-Flow Index Grid for the Conterminous United States</i> . Raster digital data. Lawrence, KS: U.S. Geological Survey.	<a href="http://ks.water.usgs.gov/pubs/abstracts/of.03-263.htm">http://ks.water.usgs.gov/pubs/abstracts/of.03-263.htm</a>		raster	1000m	
	Vulnerability to Flow Regime Change		Historic and projected maximum snow-water equivalent	Climate Impacts Group. 2009b. <i>Historic and Modeled Maximum Snow Water Equivalent</i> . Raster digital data. Seattle, WA: University of Washington.	<a href="http://www.hydro.washington.edu/2860/products/primary_data/">http://www.hydro.washington.edu/2860/products/primary_data/</a>		raster	6097m	
			Historic and projected October-March precipitation	Climate Impacts Group. 2009c. <i>Historic and Modeled October-March Precipitation</i> . Raster digital data. Seattle, WA: University of Washington.	<a href="http://www.hydro.washington.edu/2860/products/primary_data/">http://www.hydro.washington.edu/2860/products/primary_data/</a>		raster	6097m	
Vulnerability to Wildfire		Projected wildfire risk	Haak, Amy L., Jack E Williams, Daniel J. Isaak, Albert H. Todd, C.C. Muhlfeld, J.L. Kershner, Robert E. Gresswell, S.W. Hostetler, and Helen M. Neville. ———. 2010b. Results of LANDFIRE wildfire analysis. Raster digital data. Reston, VA: U.S. Geological Survey.; 2010a. The Potential Influence of Changing Climate on the Persistence of Salmonids of the Inland West. Open-File Report. Reston, VA: U.S. Geological Survey.	Not available for download online	<a href="http://pubs.usgs.gov/of/2010/1236/">http://pubs.usgs.gov/of/2010/1236/</a>	raster	844m		
Watershed Condition	Water quality		Washington 303(d) streams	Washington State Department of Ecology. 2009. <i>2008 Washington Water Quality Assessment, 303(b) Report and 303(d) List</i> . Vector digital data. Olympia, WA: Washington State Department of Ecology, February 23.	<a href="http://www.ecy.wa.gov/services/gis/data/data.htm#w">http://www.ecy.wa.gov/services/gis/data/data.htm#w</a>	<a href="http://www.ecy.wa.gov/services/gis/data/watqual/303d08.htm">http://www.ecy.wa.gov/services/gis/data/watqual/303d08.htm</a>	vector: polygon		
			Oregon 303(d) streams	Oregon Department of Environmental Quality, Water Quality Division. 2008. <i>Water Quality - 2004/2006 Integrated Report including 303d Streams &amp; Lakes</i> . Vector digital data. Oregon Department of Environmental Quality, Water Quality Division, January 7.	<a href="http://www.deq.state.or.us/wq/assessment/rpt0406.htm">http://www.deq.state.or.us/wq/assessment/rpt0406.htm</a>	<a href="http://www.oregon.gov/DAS/EISPD/GEO/docs/metadata/orlakeswaterquality_0406v2.htm">http://www.oregon.gov/DAS/EISPD/GEO/docs/metadata/orlakeswaterquality_0406v2.htm</a>	Vector: line and polygon		
			Idaho 303(d) streams	Idaho Department of Environmental Quality. 2004. <i>2008 Final Integrated Report 305B/303D for Idaho</i> . Vector digital data. Boise, ID: Idaho Department of Environmental Quality, April 30.	<a href="http://cloud.insideidaho.org/webApps/util/zip.ashx?fn=http://cloud.insideidaho.org/data/ideq/streams305b2008_id_ideq">http://cloud.insideidaho.org/webApps/util/zip.ashx?fn=http://cloud.insideidaho.org/data/ideq/streams305b2008_id_ideq</a>	<a href="http://cloud.insideidaho.org/webApps/metadataViewer/default.aspx?path=G%3a%5cdata%5scanonymous%5cideq%5cstreams305b2008_id_ideq%5cIDEQ305B_2008_Strms.shp.xml">http://cloud.insideidaho.org/webApps/metadataViewer/default.aspx?path=G%3a%5cdata%5scanonymous%5cideq%5cstreams305b2008_id_ideq%5cIDEQ305B_2008_Strms.shp.xml</a>	vector: line		
	Water quality (cont'd)		Protected areas	Conservation Biology Institute. 2010. <i>Protected Areas Database US 1.1 (CBI Edition)   Data Basin</i> . Vector digital data. Corvallis, OR: Conservation Biology Institute, May 1.	<a href="http://databasin.org/protected-center/features/PAD-US-CBI">http://databasin.org/protected-center/features/PAD-US-CBI</a>			vector: polygon	
			Point-source pollution	National Fish Habitat Board. 2011. <i>National Fish Habitat Action Plan (NFHAP) catchment spatial data for Idaho, Oregon and Washington</i> . Vector digital data. Michigan: National Biological Information Infrastructure, March 2.	<a href="http://ecosystems.usgs.gov/fishhabitat/">http://ecosystems.usgs.gov/fishhabitat/</a>			vector: polygon	
	Development		Roads	U.S. Department of Commerce, U.S. Census Bureau, Geography Division. 2010. TIGER/Line Shapefile All Roads County-based Shapefiles for Idaho, Oregon and Washington. Vector digital data. Washington, DC: U.S. Department of Commerce, U.S. Census Bureau, Geography Division.	<a href="http://www.census.gov/geo/www/tiger/tgrshp2010/tgrshp2010.html">http://www.census.gov/geo/www/tiger/tgrshp2010/tgrshp2010.html</a>			vector: line	
			Streams	U.S. Environmental Protection Agency, and U.S. Geological Survey. 2005. <i>National Hydrography Dataset Plus - NHDPlus. Regions 16, 17, 18</i> . Spatial digital data. Washington, DC: U.S. Environmental Protection Agency and U.S. Geological Survey.	<a href="http://www.horizon-systems.com/nhdplus/data.php">http://www.horizon-systems.com/nhdplus/data.php</a>			vector: polygon	
		Impervious Surfaces	Fry, J., G. Xian, S. Jin, J. Dewitz, C. Homer, L. Yang, C. Barnes, N. Herold, and J. Wickham. 2011. <i>National Land Cover Database 2006 Percent Developed Imperviousness</i> . Raster digital data. MRLC.gov.	<a href="http://www.mrlc.gov/nlcd06_data.php">http://www.mrlc.gov/nlcd06_data.php</a>			raster	30m	

Component	Factors	Sub-factors	Name	Source	Data link	Information link	type	raster resolution
Watershed Condition (cont'd)	Agriculture		Crops and pasture	U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS), Research and Development Division (RDD), Geospatial Information Branch (GIB), Spatial Analysis Research Section (SARS). 2011. USDA National Agricultural Statistics Service 2010 Cropland Data Layer. Raster digital data. Washington, DC: USDA, NASS Marketing and Information Services Office.	<a href="http://nassgeodata.gmu.edu/CropScape/">http://nassgeodata.gmu.edu/CropScape/</a>	<a href="http://www.nass.usda.gov/research/Cropland/SARS1a.htm">http://www.nass.usda.gov/research/Cropland/SARS1a.htm</a>	raster	30m
Vulnerability to Invasion	Evidence of Current Invasion		Non-native species occurrences	U.S. Geological Survey. 2011. Nonindigenous Aquatic Species Database. <i>USGS</i> .	Must request data	<a href="http://nas.er.usgs.gov">http://nas.er.usgs.gov</a>	vector: point	
	Distance to Sources of Introduction: Pathways	Roads	Roads	U.S. Department of Commerce, U.S. Census Bureau, Geography Division. 2010. TIGER/Line Shapefile All Roads County-based Shapefiles for Idaho, Oregon and Washington. Vector digital data. Washington, DC: U.S. Department of Commerce, U.S. Census Bureau, Geography Division.	<a href="http://www.census.gov/geo/www/tiger/tgrshp2010/tgrshp2010.html">http://www.census.gov/geo/www/tiger/tgrshp2010/tgrshp2010.html</a>		vector: line	
		Waterbodies	Waterbodies	U.S. Environmental Protection Agency, and U.S. Geological Survey. 2005. <i>National Hydrography Dataset Plus - NHDPlus. Regions 16, 17, 18</i> . Spatial digital data. Washington, DC: U.S. Environmental Protection Agency and U.S. Geological Survey.	<a href="http://www.horizon-systems.com/nhdplus/data.php">http://www.horizon-systems.com/nhdplus/data.php</a>		vector: polygon	
	Reservoirs and Impoundments	Waterbodies	Waterbodies	Lehner, Bernhard, and Petra Doell. 2004a. Global Lakes and Wetlands Database - Level 1 (large lakes and reservoirs). Vector digital data. Global Lakes and Wetlands Database. Germany: World Wildlife Fund, July.	<a href="http://app.databasin.org/app/pages/datasetPage.jsp?id=d618891c26494d40aa3068aba153dd63">http://app.databasin.org/app/pages/datasetPage.jsp?id=d618891c26494d40aa3068aba153dd63</a>		vector: polygon	
				———. 2004b. Global Lakes and Wetlands Database - Level 2 (small lakes and reservoirs, rivers). Vector digital data. Global Lakes and Wetlands Database. Germany: World Wildlife Fund, July.	<a href="http://app.databasin.org/app/pages/datasetPage.jsp?id=03cc8ad8d6df453aa641f1730e2bcffc">http://app.databasin.org/app/pages/datasetPage.jsp?id=03cc8ad8d6df453aa641f1730e2bcffc</a>		vector: polygon	
		Dams		U.S. Army Corps of Engineers. 2006. <i>National Inventory of Dams</i> . Vector digital data. Alexandria, VA: U.S. Army Corps of Engineers.	Not available for download online	<a href="http://geo.usace.army.mil/pgis/f?p=397:12:">http://geo.usace.army.mil/pgis/f?p=397:12:</a>	vector: point	
		Waterbodies		ESRI. 2006. <i>U.S. National Atlas Water Feature Areas</i> . Vector digital data. Redlands, CA: ESRI, October 1.	Proprietary data		vector: polygon	
		Dams		State of the Salmon. 2006. <i>Assessment of Dams and Reservoirs, unpublished</i> . Vector digital data. Portland, OR: Wild Salmon Center.	Unpublished		vector: point	
		Protected areas		Conservation Biology Institute. 2010. <i>Protected Areas Database US 1.1 (CBI Edition)   Data Basin</i> . Vector digital data. Corvallis, OR: Conservation Biology Institute, May 1.	<a href="http://databasin.org/protected-center/features/PAD-US-CBI">http://databasin.org/protected-center/features/PAD-US-CBI</a>		vector: polygon	
		Boating facilities in Idaho		Idaho Department of Parks and Recreation. 2006. <i>Boating Facilities of Idaho</i> . Vector digital data. Boise, ID: Idaho Department of Parks and Recreation, March 15.	<a href="http://cloud.insideidaho.org/webApps/metadataViewer/default.aspx?path=G%3a\data\anonymous\idpr\boatFac_id_idpr.shp.xml">http://cloud.insideidaho.org/webApps/metadataViewer/default.aspx?path=G%3a\data\anonymous\idpr\boatFac_id_idpr.shp.xml</a>		vector: point	
		Boating facilities in Oregon		Oregon Department of Parks and Recreation. 1989. <i>Inventory of Oregon Coastal Beach Access Sites</i> . Vector digital data. Salem, OR: Oregon Department of Parks and Recreation.	<a href="http://www.oregon.gov/DAS/EISPD/GEO/alphalist.shtm#B">http://www.oregon.gov/DAS/EISPD/GEO/alphalist.shtm#B</a>		vector: point	
		Boating facilities in Washington		Washington State Interagency Committee for Outdoor Recreation. 2004. <i>Motorized Boat Launches and Moorage Facilities of Washington State</i> . Vector digital data. Olympia, WA: Washington State Interagency Committee For Outdoor Recreation.	Must request data	<a href="http://www.rco.wa.gov/maps/boat.shtml">http://www.rco.wa.gov/maps/boat.shtml</a>	vector: point	
		Deepwater ports		Anon. 2012. List of deep-water ports. <i>Wikipedia, The Free Encyclopedia</i> . February 23.	<a href="http://en.wikipedia.org/wiki/List_of_deep-water_ports">http://en.wikipedia.org/wiki/List_of_deep-water_ports</a>		text	-
	Distance to Sources of Introduction: Sources	Recreational Areas and Boat Access	Marinas in Idaho	Manta Media Inc. 2011. Marinas in Idaho. <a href="http://www.manta.com">www.manta.com</a> .	<a href="http://www.manta.com/mb_44_B51ED_13/marinas/idaho">http://www.manta.com/mb_44_B51ED_13/marinas/idaho</a>		text	-
			Marinas in Oregon	Oregon Interactive Corporation. 2011a. Marinas in Oregon. <a href="http://www.oregon.com">Oregon.com</a> .	<a href="http://www.oregon.com/recreation/marinas">http://www.oregon.com/recreation/marinas</a>		text	-
			Marinas in Washington	RANG Ltd. 2012. Marinas in Washington (WA) USA. <i>PortFocus: Ports Harbours Marinas Worldwide</i> .	<a href="http://portfocus.com/united_states_america/zz_marinas_in_wa/">http://portfocus.com/united_states_america/zz_marinas_in_wa/</a>		text	-
			Marinas in Washington	Washington Ports Association. 2006. Marinas. <a href="http://www.washingtonports.org">www.washingtonports.org</a> .	<a href="http://www.washingtonports.org/issues_areas/marina.asp">http://www.washingtonports.org/issues_areas/marina.asp</a>		text	-
			Marinas in Washington	Marinas.com. 2011. Washington Marinas - WA Marinas boat slips yacht slips Washington United States. <a href="http://marinas.com">marinas.com</a> .	<a href="http://marinas.com/browse/marina/US/WA/">http://marinas.com/browse/marina/US/WA/</a>		text	-
			Port of Allyn	MarineFuel.com. 2012. Port of Allyn Dock Marina in BELFAIR. <a href="http://marinefuel.com">marinefuel.com</a> .	<a href="http://marinefuel.com/e-marina/washington/belfair/port-of-allyn-dock/">http://marinefuel.com/e-marina/washington/belfair/port-of-allyn-dock/</a>		text	-
			Port of Port Angeles	Port of Port Angeles. 2004. Port of Port Angeles, Washington State. <a href="http://www.portofpa.com">www.portofpa.com</a> .	<a href="http://www.portofpa.com/">http://www.portofpa.com/</a>		text	-
			Port of Seattle	Port of Seattle. 2011. Port of Seattle   Maritime Industrial Center. <a href="http://www.portseattle100.org">www.portseattle100.org</a> .	<a href="http://www.portseattle100.org/properties/maritime-industrial-center">http://www.portseattle100.org/properties/maritime-industrial-center</a>		text	-
			Ports in Oregon	Oregon Interactive Corporation. 2011b. Ports of Oregon. <a href="http://www.oregon.com">Oregon.com</a> .	<a href="http://www.oregon.com/recreation/ports">http://www.oregon.com/recreation/ports</a>		text	-
			Hatcheries and fish propagation facilities	Hatcheries	Hatcheries	StreamNet Project, Pacific States Marine Fisheries Commission. 2009. <i>Hatchery Facilities (StreamNet, August 2009)</i> . Vector digital data. Portland, OR: StreamNet.	<a href="http://www.streamnet.org/mapping_apps.cfm">http://www.streamnet.org/mapping_apps.cfm</a>	<a href="ftp://ftp.streamnet.org/pub/streamnet/gisdata/map_data_physical/HatchFacilities_200908.htm">ftp://ftp.streamnet.org/pub/streamnet/gisdata/map_data_physical/HatchFacilities_200908.htm</a>
	Hatcheries in Idaho	Idaho State Department of Agriculture. 2006. <i>Commercial Fish Facilities Mailing List</i> . Text location data. Boise, ID: Idaho State Department of Agriculture.			<a href="http://www.agri.idaho.gov/Categories/Animals/fishFarms/fishmailing.php">http://www.agri.idaho.gov/Categories/Animals/fishFarms/fishmailing.php</a>		text	-
	Hatcheries in Idaho	Idaho Fish and Game. 2011. <i>Fish Hatcheries</i> . Text location data. Boise, ID: Idaho Fish and Game.			<a href="http://fishandgame.idaho.gov/cms/fish/hatcheries/">http://fishandgame.idaho.gov/cms/fish/hatcheries/</a>		text	-
	Hatcheries in Oregon	Oregon Department of Fish and Wildlife. 2011a. <i>Private Hatchery Locations in Oregon</i> . Unpublished Excel spreadsheet. Salem, Oregon: Oregon Department of Fish and Wildlife.					spreadsheet	

Component	Factors	Sub-factors	Name	Source	Data link	Information link	type	raster resolution
Vulnerability to Invasion (cont'd)	Distance to Sources of Introduction: Sources (cont'd)	Hatcheries and fish propagation facilities (cont'd)	Hatcheries in Oregon	Oregon Department of Fish and Wildlife. 2006a. <i>ODFW Visitors Guide Wildlife Areas and Hatcheries</i> . Text location data. Salem, OR: Oregon Department of Fish and Wildlife.	<a href="http://www.dfw.state.or.us/resources/visitors/wildlife_areas_hatcheries.asp">http://www.dfw.state.or.us/resources/visitors/wildlife_areas_hatcheries.asp</a>		text	-
			Hatcheries in Oregon	Oregon Department of Fish and Wildlife. 2006b. <i>Hatchery Facilities of Oregon</i> . Vector digital data. Salem, OR: Oregon Department of Fish and Wildlife, May 3.	<a href="http://nrimp.dfw.state.or.us/nrimp/default.aspx?pn=hatchdata">http://nrimp.dfw.state.or.us/nrimp/default.aspx?pn=hatchdata</a>		vector: point	
			Hatcheries in Washington	Washington Department of Fish and Wildlife. 2011. <i>Hatchery Facilities   Washington Department of Fish &amp; Wildlife</i> . Text location data. Olympia, WA: Idaho Fish and Game.	<a href="http://wdfw.wa.gov/hatcheries/facilities.php">http://wdfw.wa.gov/hatcheries/facilities.php</a>		text	-
			Population density	Hanser, Steve. 2000. <i>Population Density in the Western United States (Individuals / ha)</i> . Raster digital data. Boise, ID: U.S. Geological Survey. <a href="http://sagemap.wr.usgs.gov/ftp/regional/usgs/popdens_hf.zip">sagemap.wr.usgs.gov/ftp/regional/usgs/popdens_hf.zip</a>	<a href="http://sagemap.wr.usgs.gov/ftp/regional/usgs/popdens_hf.zip">http://sagemap.wr.usgs.gov/ftp/regional/usgs/popdens_hf.zip</a>		raster	90m

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