

Appendix C1: Inventory of Projects

Project No.	Action Agenda Area	Action Agenda Strategy No.	PSA No.	Priority Science Action title (from 2011-13 BSWP)	Project Title	Name of Principal Investigator or project contact	Recipient or Implementing Institution	Phone no.	Email Address	Start date	End date	Budget	Funding source or LO	Reports and Publications
P1	Habitats	A1, A2, A3	1	Develop analytical tools to identify options for where to protect, where to restore, and where to develop while maintaining desired [freshwater and terrestrial] ecological goods and services.	Building a Puget Sound Wide, Community Watershed Database and Analysis System to Facilitate Science-Based Resource Management and Restoration	Lee Benda	Earth Systems Institute	206-633-1792	LeeBenda@earthsystems.net		#####	\$ 286,723	Competitive award from EPA from FY 2009	
P2	Habitats	A1, A2, A3	1	Develop analytical tools to identify options for where to protect, where to restore, and where to develop while maintaining desired [freshwater and terrestrial] ecological goods and services.	Effect of Forestry on Headwater Streams in Erodible Lithology	Mark Hicks	Washington Dept. of Ecology	360-407-6000	mhic461@ecy.wa.gov.		6/29/2014	\$ 699,827	Competitive award from EPA from FY 2009	
P3	Habitats	A1, A2, A3	1	Develop analytical tools to identify options for where to protect, where to restore, and where to develop while maintaining desired [freshwater and terrestrial] ecological goods and services.	Integrated Modeling and Decision-Support System for Water Management in the Puget Sound Basin	Andrea Copping	Pacific Northwest National Laboratory	1-888-375-7665	andrea.copping@pnnl.gov	1/1/2011	#####	\$ 573,025	Competitive award from EPA from FY 2009	
P4	Habitats	A1, A2, A3	1	Develop analytical tools to identify options for where to protect, where to restore, and where to develop while maintaining desired [freshwater and terrestrial] ecological goods and services.	Strategies for Preserving and Restoring Small Puget Sound Drainages	Wilhelm, Jo	King County DNRP WLRD Science	206-263-6556 / 206-477-4849	jo.wilhelm@kingcounty.gov	28-Aug-13	30-Jun-15	\$ 135,469	WA Department of Ecology	
P5	Habitats	A1, A2, A3	1	Develop analytical tools to identify options for where to protect, where to restore, and where to develop while maintaining desired [freshwater and terrestrial] ecological goods and services.	Integrated watershed management plan using Puget Sound Watershed Characterization Project	Patty Michak	Hood Canal Coordinating Council	360-930-8634	Pmichak@hccc.wa.gov	3/1/2012	12/31/2013 (pending extension)	\$ 341,037	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P6	Habitats	A1, A2, A3	1	Develop analytical tools to identify options for where to protect, where to restore, and where to develop while maintaining desired [freshwater and terrestrial] ecological goods and services.	Watershed based land-use planning	Patty Charnas	Kitsap County	360-337-7098	Pcharnas@co.kitsap.wa.us	12/13/2012	#####	\$ 179,752	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P7	Habitats	A1, A2, A3	1	Develop analytical tools to identify options for where to protect, where to restore, and where to develop while maintaining desired [freshwater and terrestrial] ecological goods and services.	Predictive modeling, protecting coastal salmon streams	Todd Zackey	Tulalip Tribe	360-716-4637	tzackey@tulaliptribes-nsn.gov	1/10/2012	#####	\$ 250,563	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P8	Habitats	A1, A2, A3	1	Develop analytical tools to identify options for where to protect, where to restore, and where to develop while maintaining desired [freshwater and terrestrial] ecological goods and services.	Channel Migration Zone Assessments	Patricia Olson	WA Dept. of Ecology	360-407-7540	Patricia.olson@ecy.wa.gov	1/1/2013	3/31/2014	\$ 132,000	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P9	Habitats	A1, A2, A3	1	Develop analytical tools to identify options for where to protect, where to restore, and where to develop while maintaining desired [freshwater and terrestrial] ecological goods and services.	Island Co. watershed analysis & update of FWPCA	Kira Swanson	Island County	360-678-7811	K.swanson@co.island.wa.us	6/13/2013	6/15/2015	\$ 250,000	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P10	Habitats	A1, A2, A3	2	Use social science to guide development of adaptive management structures that can effectively link [freshwater and terrestrial] restoration science to management decision-making.	How to incorporate cultural ecosystem services into resource management decisions: testing a visualization tool	Bessie Schwarz	Yale		bessie.schwarz@yale.edu	Jun-13	May-13		NSF, Yale, Puget Sound Institute	

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P11	Habitats	A1, A2, A3	2	Use social science to guide development of adaptive management structures that can effectively link [freshwater and terrestrial] restoration science to management decision-making.	NOAA/NWFSC—Defining Target Levels for Puget Sound's Ecosystem Components: A Socio-Ecological approach		NOAA	206-860-3473				\$ 643,810	NOAA	
P12	Habitats	A1, A2, A3	3	Develop ecological indicators; assess baseline conditions; and implement monitoring to measure [freshwater and terrestrial] ecosystem function relative to no net loss.	Long-term monitoring of Lake Washington plankton	Daniel Schindler	University of Washington, Seattle	206-616-6724	deschind@uw.edu	1958	present	\$ 50,000	City of Seattle University of Washington	
P13	Habitats	A1, A2, A3	3	Develop ecological indicators; assess baseline conditions; and implement monitoring to measure [freshwater and terrestrial] ecosystem function relative to no net loss.	Wetlands Change Analysis - Tracking No Net Loss of Wetlands	Michelle Wilcox	Dept. of Ecology	360-407-6185	Michelle.wilcox@ecy.wa.gov		#####	\$ 253,403	Competitive award from EPA from FY 2009	http://www.ecy.wa.gov/programs/sea/wetlands/StatusAndTrends.html
P14	Habitats	A1, A2, A3	3	Develop ecological indicators; assess baseline conditions; and implement monitoring to measure [freshwater and terrestrial] ecosystem function relative to no net loss.	Elwha River Restoration Project: the Dynamics and Downstream Impacts of Fine Sediments Released After Dam Removal		United States Geological Survey	253-552-1600				\$ 350,000	Competitive award from EPA from FY 2009	
P15	Habitats	A1, A2, A3	3	Develop ecological indicators; assess baseline conditions; and implement monitoring to measure [freshwater and terrestrial] ecosystem function relative to no net loss.	Qwuloot/Snohomish estuary restoration monitoring	Casey Rice	NOAA-F, NWFSC	206-860-3307	casimir.rice@noaa.gov	Jun-13	Dec-13	\$ 350,000	NOAA, Tulalip Tribes	
P16	Habitats	A1, A2, A3	3	Develop ecological indicators; assess baseline conditions; and implement monitoring to measure [freshwater and terrestrial] ecosystem function relative to no net loss.	Effects of urbanization on lakes in the greater Seattle area	Daniel Schindler	University of Washington, Seattle	206-616-6725	deschind@uw.edu	1997	present	\$ -	University of Washington	
P17	Habitats	A1, A2, A3	3	Develop ecological indicators; assess baseline conditions; and implement monitoring to measure [freshwater and terrestrial] ecosystem function relative to no net loss.	Marine and Terrestrial Bird Indicators for Puget Sound	Scott Pearson and N.J. Hamel	WDFW	360-902-2524	Scott.Pearson@dfw.wa.gov	1 Sept. 2011	30-Jun-12			http://www.psp.wa.gov/vitalsigns/documents/Pearson%20and%20Hamel%20Bird%20Indicators%202013_Final.pdf
P18	Habitats	A1, A2, A3	3	Develop ecological indicators; assess baseline conditions; and implement monitoring to measure [freshwater and terrestrial] ecosystem function relative to no net loss.	Port Madison bottom trawling	Thomas Quinn	SAFS, University of Washington	206-543-9042	tquinn@u.washington.edu					fishbull.noaa.gov/1113/essington.pdf
P19	Habitats	A1, A2, A3	3	Develop ecological indicators; assess baseline conditions; and implement monitoring to measure [freshwater and terrestrial] ecosystem function relative to no net loss.	Lake Washington fish sampling	Thomas Quinn	SAFS, University of Washington	206-543-9042	tquinn@u.washington.edu					
P20	Habitats	A1, A2, A3	4	Conduct social science studies to describe the key institutional challenges to attaining no net loss and improvements from [freshwater and terrestrial] restoration.	Measuring Watershed and Climate Impacts of the "Environmental Stewardship Footprint": A Framework for the Green-Duwamish Watershed	Clare M. Ryan, Dale Blahna	University of Washington, School of Environmental and Forest Sciences; USDA Forest Service, PNW Research Station	206 616-3987	cmryan@uw.edu	Oct. 2011	Sept. 2014.	\$ 50,000	USDA Forest Service, PNW Research Station	
P21	Habitats	A1, A2, A3	4	Conduct social science studies to describe the key institutional challenges to attaining no net loss and improvements from [freshwater and terrestrial] restoration.	Collaborative Environmental Management for Solving Complex Marine Problems: An evaluation of Puget Sound Salmon Recovery	Nives Dolsak	University of Washington	206 685-2144	nives@uw.edu					
P22	Floodplains	A5	5	Estimate the value of floodplains in terms of the ecosystems services they provide.	Farms, fish and floods initiative	Kris Knight	The Nature Conservancy	360-419-0556	kknight@tnc.org	3/19/2012	9/30/2014	\$ 406,667	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	

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P23	Floodplains	A5	5	Estimate the value of floodplains in terms of the ecosystems services they provide.	[No information]	Mark Buckley	EcoNorthwest	503.724.8445	Not Listed					
P24	Floodplains	A5	6	Develop key ecological indicators and implement monitoring to assess status of floodplains.	Channel Migration Assessments: Providing Puget Sound Communities with Information & Technical Assistance for Shorelines Master Programs, Floodplain Management & Riverine Protection & Restoration Strategies		Dept. of Ecology	360-407-6000				\$ 564,139	Competitive award from EPA from FY 2009	
P25	Floodplains	A5	6	Develop key ecological indicators and implement monitoring to assess status of floodplains.	Assessment of Marine and Floodplain Riparian Vegetation in the Hood Canal and Strait of Juan de Fuca		Point No Point Treaty Council	360-297-3422				\$ 205,592	Tribal implementation assistant grant from EPA	
P26	Floodplains	A5	6	Develop key ecological indicators and implement monitoring to assess status of floodplains.	Floodplains by design – habitat recovery through collective action	Bob Carey	The Nature Conservancy	360-419-9825	bcarey@tnc.org	5/7/2012	#####	\$ 666,667	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P27	Floodplains	A5	7	Improve understanding of the effects of vegetation on dikes and other flood control structures.	Analysis of Vegetation Effects on Levees	Susan Bolton	University of Washington	206 685 7651	sbolton@u.washington.edu	Jan-13	Mar-14	\$ 89,499	King County	
P28	Species and Foodwebs	A6	8	Develop analytical tools to evaluate whether strategies to address factors limiting the productivity of salmon are being implemented in the most effective combinations, at the right times, and with appropriate amounts of effort to lead to recovery.	Lake Sammamish Kokanee Modeling	DeGasperi, Curtis	King County DNRP WLRD Science	(206) 477-4677	curtis.degasperi@kingcounty.gov	Aug-13	Mar-13	\$ 30,408	US Fish & Wildlife	
P29	Species and Foodwebs	A6	9	Identify the causes of apparent decline in marine survival of salmon as they leave their natal rivers and exit Puget Sound.	Salish Sea Marine Survival Project	Michael Schmidt	Long Live The Kings	207 382 9555 x27	MSchmidt@lltk.org			\$ 5,000,000	Washington State via Puget Sound Partnership, Washington Department of Fish and Wildlife, The Pacific Salmon Foundation, The Pacific Salmon Commission's Southern Endowment Fund Committee.	
P30	Species and Foodwebs	A6	9	Identify the causes of apparent decline in marine survival of salmon as they leave their natal rivers and exit Puget Sound.	Puget Sound salmonid tracking	Thomas Quinn	SAFS, University of Washington	206-543-9042	tquinn@u.washington.edu		Mar-14			Goetz, et al. 2013. doi: 10.1111/jfb.12209.
P31	Species and Foodwebs	B5	10	Assess risks imposed by terrestrial and freshwater invasive species.	Combating invasive species	Wendy Brown	WA Invasive Species Council	360-902-3088	Wendy.brown@rco.wa.gov	5/22/2012	9/30/2014	\$ 302,200	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P32	Species and Foodwebs	B5	10	Assess risks imposed by terrestrial and freshwater invasive species.	Costs of living for juvenile Chinook salmon in an increasingly warming and invaded world	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2011	2012		EPA	Kuehne, L.M., Olden, J.D., and J.J. Duda. 2012. Costs of living for juvenile Chinook salmon in an increasingly warming and invaded world. Canadian Journal of Fisheries and Aquatic Sciences 69: 1621-1630.

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P33	Species and Foodwebs	B5	10	Assess risks imposed by terrestrial and freshwater invasive species.	Prey naivety in the behavioural responses of juvenile Chinook (<i>Oncorhynchus tshawytscha</i>) salmon to an invasive predator	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2011	2012		EPA	Kuehne, L.M., and J.D. Olden. 2012. Prey naivety in the behavioural responses of juvenile Chinook (<i>Oncorhynchus tshawytscha</i>) salmon to an invasive predator. <i>Freshwater Biology</i> 57: 1126-1137.
P34	Species and Foodwebs	B5	10	Assess risks imposed by terrestrial and freshwater invasive species.	The aquarium trade as an invasion pathway in the Pacific Northwest	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2011	2012		None	(1) Larson, E.R., Abbott, C.L., Usio, N., Azuma, N., Wood, K.A., Herborg, L-M., and J.D. Olden. 2012. The signal crayfish is not a single species: cryptic diversity and invasions in the Pacific Northwest range of <i>Pacifastacus</i> . <i>Freshwater Biology</i> 57: 1823-1838. (2) Larson, E.R. and J.D. Olden. 2011. The state of crayfish in the Pacific Northwest. <i>Fisheries</i> 36:60-73. (3) Larson, E.R., Busack, C.A., Anderson, J.D. and J.D. Olden. 2010. Widespread distribution of the non-native northern crayfish (<i>Orconectes virilis</i>) in the Columbia River Basin. <i>Northwest Science</i> 84:108-111. (4) Olden, J.D., Adams, J.W. and E.R. Larson. 2009. First record of <i>Orconectes rusticus</i> (Girard, 1852) (Decapoda, Cambaridae) west of the Great Continental Divide in North America. <i>Crustaceana</i> 82:1347-1351. (5) Larson, E.R. and J.D. Olden. 2008. Do schools and golf courses represent emerging pathways for crayfish invasions? <i>Aquatic Invasions</i> 3:465-468.
P35	Species and Foodwebs	B5	10	Assess risks imposed by terrestrial and freshwater invasive species.	The state of native and invasive crayfish in the Pacific Northwest	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2010	ongoing		University of Washington	Strecker, A.L., Campbell, P.M. and J. D. Olden. 2011. The aquarium trade as an invasion pathway in the Pacific Northwest. <i>Fisheries</i> 36:74-85. PDF
P36	Species and Foodwebs	B5	10	Assess risks imposed by terrestrial and freshwater invasive species.	Crayfish occupancy and abundance in lakes of the Pacific Northwest, USA	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2010	2013		University of Washington	Larson, E.R. and J.D. Olden. 2013. Crayfish occupancy and abundance in lakes of the Pacific Northwest. <i>Freshwater Science</i> 32: 94-107.
P37	Species and Foodwebs	B5	10	Assess risks imposed by terrestrial and freshwater invasive species.	Forecasting the vulnerability of Washington lakes to aquatic plant invasions	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2011	2013		Department of Ecology and University of Washington	Tamayo, M. and J.D. Olden. In press. Forecasting the vulnerability of lakes to aquatic plant invasions. <i>Plant Invasive Species Management</i> .
P38	Species and Foodwebs	B5	10	Assess risks imposed by terrestrial and freshwater invasive species.	Assessing lethal dissolved oxygen tolerance for invasive tunicate <i>Ciona savignyi</i> in Puget Sound	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2012	2013		None	Pool, T.K., Luis, S., and J.D. Olden. 2013. Assessing the lethal dissolved oxygen tolerance for the invasive tunicate <i>Ciona savignyi</i> in the Puget Sound. <i>Northwest Science</i> 87: 103-113.
P39	Species and Foodwebs	B5	10	Assess risks imposed by terrestrial and freshwater invasive species.	Does aquatic weed management promote habitat restoration for Olympic mudminnow?	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2012	ongoing		Department of Ecology	
P40	Freshwater	A7	11	Develop robust ecological indicators and implement comprehensive monitoring for stream flows.	Hydrogeomorphic classification of Washington State rivers to support emerging environmental flow management strategies	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2009	2012		NOAA Fisheries	Reidy Liernann, C.A. Olden, J.D., Beechie, T.J., Kennard, M.J., Skidmore, P.B., Konrad, C.P. and H. Imaki. 2012. Hydrogeomorphic classification of Washington State rivers to support emerging environmental flow management strategies. <i>River Research and Applications</i> 28: 1340-1358.
P41	Freshwater	A7	11	Develop robust ecological indicators and implement comprehensive monitoring for stream flows.	Are large-scale flow experiments informing the science and management of freshwater ecosystems?	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu	2011	2013		National Center for Ecological Analysis and Synthesis	Olden, J.D., C. Konrad, T. Melis, M. Kennard, M. Freeman, M. Mims, E. Bray, K. Gido, N. Hemphill, D. Lytle, L. McMullen, M. Pyron, C. Robinson, J. Schmidt and J. Williams. In press. Are large-scale flow experiments informing the science and management of freshwater ecosystems? <i>Frontiers in Ecology and the Environment</i> .
P42	Freshwater	A7	12	Evaluate and improve stream flow targets in terms of their effects on abundance, productivity, distribution, and life-history diversity of salmon.	Peak Flows and Chinook Survival in the Stillaguamish Watershed: Modeling the Relative Importance of Natural and Anthropogenic Factors; Prioritizing Restoration and Protection Actions Utilizing a Parcel-Based GIS Framework		Stillaguamish Tribe, Natural Resources Dept.	425-359-7922				\$ 335,011	Tribal implementation assistant grant from EPA	

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P43	Freshwater	A7	12	Evaluate and improve stream flow targets in terms of their effects on abundance, productivity, distribution, and life-history diversity of salmon.	White River Bioenergetics Project website http://wa.water.usgs.gov/projects/whiteriverbio/summary.htm	Black, Robert Supervisory Hydrologist (Aquatic ecology)	USGS Washington Water Science Center	253-552-1687	rwblack@usgs.gov	2010	2013		King County Water and Land Resources Division	Article "Examining the Impact of River-Management Actions on Aquatic Resources Using 2-D Flow and Bioenergetics Models" by RW Black et al submitted to journal for review Oct 2013.
P44	Freshwater	A7	12	Evaluate and improve stream flow targets in terms of their effects on abundance, productivity, distribution, and life-history diversity of salmon.	Kitsap Co: Improve stream data to protect freshwater ecosystems	David Nash	Kitsap County	360-337-5777 x3082	dnash@co.kitsap.wa.us	6/4/2012	#####	\$ 494,176	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P45	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Mapping Puget Sound Feeder Bluffs	Hugh Shipman (ECY), Jim Johannesson (CGS), Andrea MacLennan (CGS)	Dept. of Ecology	(425) 649-7095 360-647-1845	HSH1461@ECY.WA.GOV, jim@coastalgeo.com, andrea@coastalgeo.com	9/1/2011	#####	\$ 355,500	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P46	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Protecting the Strait of Juan de Fuca Nearshore	Anne Schaffer (CWI), George Kaminski (ECY)	Coastal Watershed Institute	360.461.0799 (360) 407-6797	anne.schaffer@coastalwatershedinstitute.org	4/9/2012	1/31/2014	\$ 320,179	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P47	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Protecting Ecosystem Functions with Sea Level Rise and Cumulative Effects Management Tools	Tina Whitman (FoSJ) Andrea MacLennan (CGS)	Friends of San Juans	360-378-2319 360-647-1845	tina@sanjuans.org, shannon@sanjuans.org, andrea@coastalgeo.com	3/20/2012	1/31/2014	\$ 150,000	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P48	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Model sediment-water interactions in Puget Sound	Karol Erickson	Dept. Ecology and Pacific Northwest National Laboratory	360-407-6000	Karol.Erickson@ecy.wa.gov	9/1/2013	9/30/2015	\$ 377,510	Toxics and Nutrients LO award managed by Dept. of Ecology	
P49	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Population identity of Pacific herring spawning in May 2012 at the Seattle waterfront	Lorenz Hauser	University of Washington	206 685 3270	lhauser@u.washington.edu	Apr-13	Dec-13	\$ 10,996	Washington Department of Fish and Wildlife	
P50	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Local adaptation in Puget Sound Pacific cod (<i>Gadus macrocephalus</i>): phenotypic and genomic differentiation and the conservation of a depleted population in a warming environment	Lorenz Hauser	University of Washington	206 685 3270	lhauser@u.washington.edu	Feb-12	Jan-15	\$ 233,630	Washington Sea Grant	

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P51	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Coastal Habitats in Puget Sound – Effects of Urbanization Task	Dinicola, Richard S. Supervisory Hydrologist (Water resources, groundwater contaminant fate and transport) Conn, Kathleen E. Hydrologist (Emerging contaminants and other toxics) Liedtke, Theresa L. Research Fishery Biologist (Forage Fish, food webs) Takesue, Renee K. Research Geochemist (eelgrass, geochemistry)	Dinicola, Richard S.: USGS Washington Water Science Center Conn, Kathleen E.: USGS Washington Water Science Center Liedtke, Theresa L.: USGS Northwest Fisheries Research Center Takesue, Renee K.: USGS Pacific Coastal Marine Science Center	Dinicola, Richard S. Phone: 253-552-1603 Conn, Kathleen E. Phone: 253-552-1677 Liedtke, Theresa L. Phone: 509-538-2299 x270 Takesue, Renee K. Phone: 831-460-7594	Dinicola, Richard S.: dinicola@usgs.gov Conn, Kathleen E.: kconn@usgs.gov Liedtke, Theresa L.: tliedtke@usgs.gov Takesue, Renee K.: rtakesue@usgs.gov	2006	ongoing	\$ 300,000	USGS Coastal Marine Geology Program	
P52	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	McGlinn Causeway Sediment Transport Modeling	Tarang Khangaonkar and Zhaoqing Yang	Pacific Northwest National Laboratory	(360) 683-4151	tarang.khangaonkar@pnnl.gov, zhaoqing.yang@pnnl.gov	5/2/2011	9/30/2011		Client: NOAA	http://pugetsound.pnnl.gov/PSGB/PSGB_Research/Nearshore_Restoration_ESRP/restoration/McGlinn_cswy_restoration.stm
P53	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Nonlinear Responses to Global Change in Linked Aquatic and Terrestrial Ecosystems and Effects of Multiple Factors on Terrestrial Ecosystems	John Rybczyk (PI) and Tarang Khangaonkar	Western Washington University	(360) 650-2081	John.Rybczyk@wwu.edu, tarang.khangaonkar@pnnl.gov	4/1/2007	3/31/2012		Client: NCEP EPA Star Grant	http://pugetsound.pnnl.gov/PSGB/PSGB_Research/Skagit_SLR_EPA_STAR/Skagit_SLR_EPA_STAR.stm
P54	Habitats	B2, B3	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Land Use Planning Tools for Coastal Habitat - Cumulative Effects of Nearshore Restoration on Habitat and Fish Migration in Northern Puget Sound, Washington	Tarang Khangaonkar	Pacific Northwest National Laboratory	(360) 683-4151	tarang.khangaonkar@pnnl.gov	9/1/2007	4/30/2010		Client: NOAA-CICEET Grant	http://pugetsound.pnnl.gov/PSGB/PSGB_Research/Fish_Migration_Restoration_CICEET/Fish_Migration_Restoration_CICEET.stm
P55	Habitats	B2, B4	13	Develop analytical tools to identify priority areas for [marine and nearshore] protection, restoration, and stewardship.	Fir Island Farm Restoration	Zhaoqing Yang	Pacific Northwest National Laboratory	(360) 683-4151	zhaoqing.yang@pnnl.gov	11/18/2010	5/9/2013		Client: Battelle Memorial Institute, Pacific Northwest Division /Shannon & Wilson, Inc	http://wdfw.wa.gov/lands/wildlife_areas/skagit/fir_island/fir_island_farms_final_feasibility_report.pdf
P56	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Vulnerability and Resilience of Coastal Estuaries	Roger Fuller	The Nature Conservancy	206-343-4344	rfuller@tnc.org		#####	\$ 675,000	Competitive award from EPA from FY 2009	
P57	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Puget Sound Nearshore Ecosystem Restoration Project Selection and Design		United States Fish and Wildlife Service	360-753-9440				\$ 549,922	Competitive award from EPA from FY 2009	http://www.pugetsoundnearshore.org/technical_papers/psner_p_strategies_maps.pdf
P58	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Monitoring and Adaptive Management of the Nisqually Delta Tidal Marsh Restoration: Restoring Ecosystem Function for Salmon		Nisqually Indian Tribe Natural Resources Dept.	Contact: 360-456-5221				\$ 600,000	Competitive award from EPA from FY 2009	

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P59	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	20% More Eelgrass by 2020: Restoration Site Identification, and Investigating Restoration Barriers	Jeff Gaeckle (WADNR)	Washington State Dept. of Natural Resources	(360)902-1030	JEFFREY.GAECKLE@dnr.wa.gov	5/25/2012	6/30/2014	\$ 506,403	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P60	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Port Susan Bay Dike Setback—River Delta	Kat Morgan	The Nature Conservancy	(360) 419-7059	kmorgan@tnc.org	1-Jul-11	Jun-13	\$ 162,450	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P61	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Milltown Island/ South Fork Skagit River Restoration —River Delta	Steve Hinton (SRSC)	Skagit River System Cooperative	360-466-7243	shinton@skagitcoop.org	see note below	see note below	\$ 162,450	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P62	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Quantifying the Impacts of Shoreline Armoring	Eric Beamer (SRSC), Andrea McBride (SRSC)	Skagit River System Cooperative	360-466-7241 360-466-4691	ebeamer@skagitcoop.org, amcbride@skagitcoop.org	6/15/2012	#####	\$ 353,583	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P63	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Social Marketing Strategy to Reduce Puget Sound Shoreline Armoring	Carey Evanson (Colehour+Cohen) Heather Trim (Futurewise) Andrea MacLennan (CGS)	Colehour+Cohen	206-2620363 X 111 206 343-0681 X115 See above	cevanson@colehourcohen.com heather@futurewise.org See above	8/12/2013	5/5/2014	\$ 249,891	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P64	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Marine Shoreline Design Guidance	Randy Carman (WDFW), Bob Barnard (WDFW), Jim Johanneson (CGS)	Dept. of Fish and Wildlife	360-902-2415 360-466-4345, ext 255 360-647-1845	Randy.Carman@dfw.wa.gov, Bob.Barnard@dfw.wa.gov, jim@coastalgeo.com	11/21/2011	#####	\$ 468,712	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	Johanneson, J., A. MacLennan, A. Blue, J. Waggoner, S. Williams, W. Gerstel, R. J. Barnard, R. Carman, and H. Shipman, 2014. Marine Shoreline Design Guidelines. Aquatic Habitat Guidelines program, Washington Department of Fish and Wildlife, Olympia, Washington.
P65	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Monitoring and Adaptive Management of the Nisqually Delta Tidal Marsh Restoration: Restoring Ecosystem Function for Salmon		Nisqually Indian Tribe Natural Resources Dept.	360-456-5221				\$ 600,000	Tribal implementation assistant grant from EPA	
P66	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Evaluating the Ecological Health of Puget Sound's Pelagic Foodweb	Correigh Greene	NOAA-F, NWFSC	206-860-5611	correigh.greene@noaa.gov	8/31/2010	#####	\$ 797,465	US EPA, NMFS, WA DNR	Greene, C.M. C. Rice, L. Rhodes, and B. Beckman, 2012. Evaluating the Ecological Health of Puget Sound's Pelagic Zone. Final report to EPA.
P67	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Qwuloot/Snohomish estuary restoration monitoring	Phil Roni	NOAA-F, NWFSC	206-860-3307	phil.roni@noaa.gov					
P68	Habitats	B2, B4	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Keyport Restoration and Adaptive Management Plan	Jill Brandenberger	Pacific Northwest National Laboratory	(360) 683-4151	Jill.Brandenberger@pnnl.gov	1/29/2009	6/30/2012		Client: Battelle Columbus Operations/Navy Facilities Command - Silverdale, WA	http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-21147Draft.pdf
P69	Habitats	B2, B3	14	Develop adaptive management structures that link [marine and nearshore] restoration science to management decision making.	Impacts of armoring on Puget Sound beaches: diverse effects on diverse scales.	Colton, Jenee	King County DNRP WLRD Science	206-296-1970 / 206477-4667	jenee.colton@kingcounty.gov	1-Feb-10	31-Jan-14	\$ 280,426	Washington Sea Grant	

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P70	Species and Foodwebs	B2, B3	15	Identify the key stressors on eelgrass.	Impacts of Outfalls on Eelgrass	Jeff Gaeckle (WADNR)	Dept. of Natural Resources	(360)902-1030	JEFFREY.GAECKLE@dnr.wa.gov	4/11/2012	4/30/2014	\$ 171,760	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P71	Species and Foodwebs	B2, B3	15	Identify the key stressors on eelgrass.	Milwaukee Dock Eelgrass Restoration	John Vavrinec	Pacific Northwest National Laboratory	(360) 683-4151	john.vavrinec@pnnl.gov	5/12/2011	9/30/2015		NOAA PMEL	
P72	Species and Foodwebs	B2, B3	15	Identify the key stressors on eelgrass.	Eelgrass Protocol	John Vavrinec	Pacific Northwest National Laboratory	(360) 683-4151	john.vavrinec@pnnl.gov				US Army Corps of Engineers	
P73	Species and Foodwebs	B5	16	Develop analytical tools and information to understand the tradeoffs in managing foodwebs of marine species and the multiple stressors affecting those foodwebs.	Can qualitative food-web modeling provide management guidance in data-poor systems?	Tessa Francis	Puget Sound Institute	206-427-7124	tessa@uw.edu	8/1/2012		\$ -	unfunded	
	Species and Foodwebs	B5	17	Implement biological and sociological studies to understand the conservation and sociological roles of marine protected areas for habitat and species protection, ecosystem restoration, and sustaining usual and accustomed tribal fishing areas.										
P74	Species and Foodwebs	B5	18	Implement studies to identify stressors on forage fish.	Demographic structure of Puget Sound herring	Tessa Francis	Puget Sound Institute	206-427-7124	tessa@uw.edu	3/1/2012	6/1/2012		NSF GRFP	Siple, MC, TB Francis and DE Schindler. In Prep. Demographic structure of Pacific herring (<i>Clupea pallasii</i>) in Puget Sound.
P75	Species and Foodwebs	B5	18	Implement studies to identify stressors on forage fish.	Habitat Limitation of Pacific Herring in Puget Sound	Tessa Francis	Puget Sound Institute	206-427-7124	tessa@uw.edu	12/1/2012	#####	\$ 92,500	Puget Sound Institute	
P76	Species and Foodwebs	B5	18	Implement studies to identify stressors on forage fish.	Historical habitat effects on Puget Sound herring	Ole Shelton	NOAA-F, NWFSC	206-860-3209	ole.shelton@noaa.gov	5/1/2013	4/30/2014	\$ 10,000	Puget Sound Institute/NOAA	
P77	Species and Foodwebs	B5	18	Implement studies to identify stressors on forage fish.	Let the predators speak for themselves - an analysis of predator diets	Ole Shelton	NOAA-F, NWFSC	206-860-3209	ole.shelton@noaa.gov	10/1/2013	9/30/2014	\$ -	unfunded	
P78	Species and Foodwebs	B5	18	Implement studies to identify stressors on forage fish.	Shifting baselines in Puget Sound: population abundance of Pacific herring and its use by Native Americans over the millennia	Lorenz Hauser	University of Washington	206 685 3270	lhauser@u.washington.edu	Feb-14	Jan-16	\$ 219,098	Washington Sea Grant	
P79	Species and Foodwebs	B5	18	Implement studies to identify stressors on forage fish.	[No information]	Theresa L. Uedtko	USGS	509-538-2299 x270	tliedtko@usgs.gov					
P80	Species and Foodwebs	B5	19	Implement studies to understand the causes of declines in marine bird abundance.	Causes of decline in abundance of marine birds.	J. K. Gaydos and I. Vilchis	SeaDoc / UC Davis	360-376-3910	jkgaydos@ucdavis.edu					Revised manuscript under review at Conservation Biology
	Species and Foodwebs	B5	20	Conduct studies to identify sources of nutrients that enter Puget Sound that can be used to develop strategies for maintaining water quality for Puget Sound foodwebs.										
P81	Species and Foodwebs	B5	21	Assess risks imposed by marine invasive species.	Water Management Assessment	Allen Pleus (WDFW)	Dept. of Fish and Wildlife and University of Washington	360-902-2724	Allen.Pleus@dfw.wa.gov	4/19/2012	4/30/2014	\$ 139,943	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P82	Species and Foodwebs	B5	21	Assess risks imposed by marine invasive species.	Assessment of Biofouling Threats to Puget Sound	Ian Davidson	Portland State University	503-725-2923	idavidso@pdx.edu	1/1/2013	#####	\$ 149,364	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	

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P83	Contaminants	C1	22	Implement studies on persistent, bioaccumulative chemicals to understand transport, trophic transfer, and associated ecological and human health risk and to ensure that Washington State's water quality standards and sediment management standards are protective of both fish and wildlife and allow human and wildlife consumption.	Juvenile Chinook Salmon Contaminant Monitoring (including WDFW sample collection)	James West	NOAA-F, NWFSC	360-902-2842	james.west@dfw.wa.gov	1/1/2013	8/31/2014	\$ 137,000	Competitive award from EPA from FY 2009	
P84	Contaminants	C1	22	Implement studies on persistent, bioaccumulative chemicals to understand transport, trophic transfer, and associated ecological and human health risk and to ensure that Washington State's water quality standards and sediment management standards are protective of both fish and wildlife and allow human and wildlife consumption.	EPA Loadings Reduction	Conn, Kathleen E. Hydrologist (Emerging contaminants and other toxics) Dinicola, Richard S. Supervisory Hydrologist (Water resources, groundwater contaminant fate and transport)	Conn, Kathleen E.:USGS Washington Water Science Center Dinicola, Richard S.: USGS Washington Water Science Center Project website http://wa.water.usgs.gov/projects/riverloads/	Conn, Kathleen E.: 253-552-1677 Dinicola, Richard S.: 253-552-1603	Conn, Kathleen E.: kconn@usgs.gov Dinicola, Richard S.: dinicola@usgs.gov	Jul-13	Anticipated 12/2013	\$ 698,646	Competitive award from EPA from FY 2009	In Progress. Expected 12/2013
P85	Contaminants	C1	22	Implement studies on persistent, bioaccumulative chemicals to understand transport, trophic transfer, and associated ecological and human health risk and to ensure that Washington State's water quality standards and sediment management standards are protective of both fish and wildlife and allow human and wildlife consumption.	Persistent organic pollutants in the Puget Sound: forage fish and their seabird predators	Thomas P. Good1, Gina M. Ylitalo*1, Scott F. Pearson*2, Peter Hodum*3, (*=co-PI)	NOAA-F, NWFSC	206-860-3469	Not listed	June-13	(Ongoing seabird sampling awaits additional funding)	\$ 35,500	Northwest Fisheries Science Center Internal Grant Program; Washington Department of Fish and Wildlife; University of Puget Sound NWFS Internal Grant (\$35,500) to TPG,GY; in kind support (field research, genetic and stable isotope analyses from WDFW to SFP; in-kind support (lab and freezer space, museum participation in seabird necroPuget Sound Institutes) from UPS to PJH	Good, T. P., S. F. Pearson, P. J. Hodum, D. Boyd, B. F. Anulacion, and G. M. Ylitalo. (In review) Persistent organic pollutants in the diet of rhinoceros auklets (Cerorhinca monocerata) breeding in Puget Sound and the northern California Current: patterns and potential consequences.
P86	Contaminants	C1	22	Implement studies on persistent, bioaccumulative chemicals to understand transport, trophic transfer, and associated ecological and human health risk and to ensure that Washington State's water quality standards and sediment management standards are protective of both fish and wildlife and allow human and wildlife consumption.	Puget Sound Crab and Shrimp Assessment	James West	Dept. of Fish and Wildlife	360-902-2842	james.west@dfw.wa.gov	4/19/2012	7/31/2013	\$ 189,387	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.ecy.wa.gov/puget_sound/docs/fedgrants_toxics_1aawdfw.pdf

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P87	Contaminants	C1	22	Implement studies on persistent, bioaccumulative chemicals to understand transport, trophic transfer, and associated ecological and human health risk and to ensure that Washington State's water quality standards and sediment management standards are protective of both fish and wildlife and allow human and wildlife consumption.	Demonstration Study of the National Monitoring Network for U.S. Coastal Waters and Their Tributaries -- Puget Sound, WA	Kim Harper	Washington State University	Not Found	Not Found	Oct-12	9/1/2015	\$ 200,000	USGS Office of Water Quality	
P88	Contaminants	C1	22	Implement studies on persistent, bioaccumulative chemicals to understand transport, trophic transfer, and associated ecological and human health risk and to ensure that Washington State's water quality standards and sediment management standards are protective of both fish and wildlife and allow human and wildlife consumption.	Development of a Fish Consumption Rate		Northwest Indian Fisheries Commission					\$ 100,000	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.ecy.wa.gov/programs/wq/swqs/curswqsruleactiv.html
P89	Contaminants	C1	22	Implement studies on persistent, bioaccumulative chemicals to understand transport, trophic transfer, and associated ecological and human health risk and to ensure that Washington State's water quality standards and sediment management standards are protective of both fish and wildlife and allow human and wildlife consumption.	Modeling contaminants through Puget Sound food web	Joel Baker	Puget Sound Institute	2532547030	jebaker@uw.edu	8/1/2012		\$ -	unfunded	
P90	Contaminants	C1	23	Describe the availability, feasibility, and safety of alternatives to products and processes that use and release toxic chemicals of concern into the Puget Sound ecosystem.	Pesticide Use Survey	Kelly McLain	Dept. of Agriculture	360-902-2067	kmclain@agr.wa.gov	Jun-12	31-Mar-14	\$ 73,985	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.ecy.wa.gov/puget_sound/docs/fedgrants_nutrients_usgs.pdf
P91	Contaminants	C1	23	Describe the availability, feasibility, and safety of alternatives to products and processes that use and release toxic chemicals of concern into the Puget Sound ecosystem.	Roofing Project	Dale Norton, Ali Kingfisher, Nancy Winters	Dept. of Ecology	360-407-6000	Dale.Norton@ecy.wa.gov	2/22/2012	2/28/2014	\$ 472,839	Toxics and Nutrients LO award managed by Dept. of Ecology	https://fortress.wa.gov/ecy/publications/publications/1303105.pdf
P92	Contaminants	C1	23	Describe the availability, feasibility, and safety of alternatives to products and processes that use and release toxic chemicals of concern into the Puget Sound ecosystem.	Development of a Chemical Hazard- Based Technical Alternative Assessment Guidance (TAAG) Document	Alex Stone	Dept. Ecology and Clean Production Action	360-407-6000	alex.stone@ecy.wa.gov	6/1/2011	#####	\$ 259,550	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.ecy.wa.gov/programs/hwtr/ChemAlternatives/altAssessment.html
P93	Contaminants	C1	23	Describe the availability, feasibility, and safety of alternatives to products and processes that use and release toxic chemicals of concern into the Puget Sound ecosystem.	Establishing a Green Chemistry Center	Indira Balkissoon	Tech Law, Inc	703-818-3243	ibalkissoon@techlawinc.com	1-Jun-13		\$ 550,000	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.ecy.wa.gov/sustainability/greenchem.html
P94	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Modeling PCB/PBDE Loadings Reduction Scenarios for the Lake Washington Watershed	J. Colton	King County	206-296-1970	jenee.colton@kingcounty.gov		6/29/2013	\$ 698,647	Competitive award from EPA from FY 2009	
P95	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Toxic Contaminant Monitoring in Mussels	Jim West (WDFW), Jennifer Lanksbury (WDFW)	Dept. of Fish and Wildlife Jim West	360-902-2842 360-902-2820	James.West@dfw.wa.gov, Jennifer.Lanksbury@dfw.wa.gov	11/28/2011	7/31/2014	\$ 207,620	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P96	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Survival of juvenile chinook salmon outmigrating through contaminated estuaries in Puget Sound	James Meador	NOAA-F, NWFSC	206 860-3321	james.meador@noaa.gov	2011	2013		NOAA base funds	In press. Canadian Journal of Fisheries and Aquatic Sciences

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P97	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Box Model and Storm Data	Dale Norton	Dept. of Ecology	360-407-6000	Dale.Norton@ecy.wa.gov	3/28/2012	4/30/2014	\$ 160,475	Toxics and Nutrients LO award managed by Dept. of Ecology	https://fortress.wa.gov/ecy/publications/summarypages/0903015.html
P98	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Nutrient Synopsis		Dept. of Ecology				6/30/2014	\$ 130,256	Toxics and Nutrients LO award managed by Dept. of Ecology	
P99	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	PBDE Product Ban Enforcement	Josh Grice	Dept. of Ecology	360-407-6000	Joshua.Grice@ecy.wa.gov	1/30/2012	1/31/2014	\$ 255,144	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.ecy.wa.gov/programs/swfa/pbt/pbde.html
P100	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Assessing Stormwater Data	Dale Norton	Washington Department of Ecology	360-407-6765	dale.norton@ecy.wa.gov	Mar-12	30-Apr-14	\$ 60,000	Toxics and Nutrients LO award managed by Dept. of Ecology	
P101	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Two year grant to study the effects of chemicals of emerging concern (CEC) on chinook and staghorn sculpin	James Meador	NOAA-F, NWFSC	206 860-3321	james.meador@noaa.gov	1/1/2013	#####	\$ 220,000	Toxics and Nutrients LO award managed by Dept. of Ecology	
P102	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Coho prespaw mortality (PSM) in Puget Sound urban watersheds	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P103	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Predictive mapping of coho PSM in Central Puget Sound watersheds	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P104	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Future declines in coho population abundance caused by PSM	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P105	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Next generation transcriptional profiling of PSM-affected coho spawners	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P106	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Effectiveness of LID at reducing coho PSM	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P107	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Puget Sound Estuary Program, PBDEs and Chinook Salmon Health	Mary Arkoosh	NOAA-F, NWFSC	541-867-0327	mary.arkoosh@noaa.gov	2011		\$ 314,180		http://www.nwfsc.noaa.gov/
P108	Contaminants	C1	24	Develop integrated monitoring and assessment of toxic chemical sources, exposure, and effects.	Transport and Fate of Nutrient and Pathogen Loadings into Nearshore Puget Sound	Mark Plummer	NOAA-F, NWFSC	206-860-3492	mark.plummer@noaa.gov	2010	???	\$ 632,000	USEPA	
P109	Contaminants	C1	25	Synthesize information on emerging contaminants of concern.	Biomonitoring for Emerging Contaminants	Evan Gallagher	University of Washington	206-616-4739	evang3@uw.edu	1/1/2013	3/30/2015	\$ 500,000	Toxics and Nutrients LO award managed by Dept. of Ecology	http://deohs.washington.edu/
P110	Contaminants	C1	25	Synthesize information on emerging contaminants of concern.	Measurement of PPCPs and PFASs in Elliott Bay Sediments	Maggie Dutch	Dept. of Ecology	360-407-6000	Margaret.Dutch@ecy.wa.gov	6/1/2013	5/30/2014	\$ 102,000	Toxics and Nutrients LO award managed by Dept. of Ecology	
P111	Contaminants	C1	25	Synthesize information on emerging contaminants of concern.	Prioritization of Management/Monitoring of Contaminants of Emerging Concern	Andy James	Puget Sound Institute	253-254-7030	jamesca@uw.edu					
P112	Contaminants	C1	25	Synthesize information on emerging contaminants of concern.	Use of Emerging Contaminants as an investigative tool for pollution investigation and correction	Baker, Miller-Schulze, James	Center for Urban Waters	253 254 7030 x 8009 (JMS) 2532194783 (Andy)	jebaker@uw.edu jschulze@uw.edu jamesca@uw.edu	Dec-13	Jan-14	\$ 42,360	Russell Family Foundation	TBA

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P113	Contaminants	C1	25	Synthesize information on emerging contaminants of concern.	SoundCitizen	Baker, Miller-Schulze	Center for Urban Waters	253 254 7030 x 8009 (JMS)	jebaker@uw.edu jschulze@uw.edu	May 2012 (Movement of program from UW-Seattle)	Current	0	unfunded	
P114	Contaminants	C1	25	Synthesize information on emerging contaminants of concern.	Characterizing Contaminants of Emerging Concern in an impacted low land stream	Andy James and Justin Miller-Schultz King County Environmental Services	Puget Sound Institute	253-254-7031	jamesca@uw.edu					
P115	Runoff from the Environment	C2	26	Develop monitoring and assessment of benthic invertebrates in small streams to evaluate stormwater management and other efforts to protect and restore streams.	Enhancement and Standardization of Benthic Macroinvertebrate Monitoring and Analysis Tools for the Puget Sound Region	Deb Lester	King County Parks and Recreation	(206) 296-8325	Deborah.lester@kingcounty.gov	2010		\$ 699,983	Competitive award from EPA from FY 2009	
P116	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Estimating costs of EPA Stormwater Retrofit	Simmonds, Jim	King County DNRP WLRD Science	206-477-4825	jim.simmonds@kingcounty.gov	1-Jul-10	30-Sep-14	\$ 999,981	Competitive award from EPA from FY 2009	
P117	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Putting science to work to address surface water runoff	Cope, B. (EPA) and M. Roberts (Ecology)	Dept. of Ecology	Mindy Roberts at 360-407-6804	Mindy.Roberts@ecy.wa.gov			\$ 480,584	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P118	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Innovative Penn Cove surface water runoff control project	Greg Cane	Coupeville	360-678-4461 x4	engineer@townofcoupeville.org	9/11/2012	3/30/2014 (pending extension)	\$ 660,697	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P119	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Develop Low Impact Development Module for Western Washington Hydrology Model	Doug Beyerlein	Clear Creek Solutions	425-225-5997	Beyerlein@clearcreeksolutions.com	1/24/2012	6/15/2014	\$ 160,000	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P120	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Expanded/validated predictions for PSM hotspot	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P121	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Neurobehavioral toxicity of copper to juvenile salmon	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P122	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Impacts of pharmaceuticals and other CECs on marine fish	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P123	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Highway runoff toxicity characterization	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P124	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Biological effectiveness of bioretention mesocosms	Nat Scholz	NOAA-F, NWFSC	206 860-3454	nathaniel.scholz@noaa.gov					
P125	Runoff from the Environment	C2	27	Evaluate the effectiveness of low impact development (LID) projects and stormwater management best management practices and programs.	Evaluating the Effectiveness of Water Treatment Residuals as a Bioretention Media Amendment for Phosphorus Control	Andy James, Kurt Marx, Brian Hite City of Tacoma	Puget Sound Institute Washington Stormwater Center	253-254-7032	jamesca@uw.edu					

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Project No.	Action Agenda Area	Action Agenda Strategy No.	PSA No.	Priority Science Action title (from 2011-13 BSWP)	Project Title	Name of Principal Investigator or project contact	Recipient or Implementing Institution	Phone no.	Email Address	Start date	End date	Budget	Funding source or LO	Reports and Publications
P126	Runoff from the Environment	C2	28	Evaluate land uses and associated pollutants that would require treatment beyond sediment removal.	PAHs in Sensitive Freshwater Aquatic Habitat near Railroads in Puget Sound	Dale Norton	Dept. of Ecology	360-407-6000	Dale.Norton@ecy.wa.gov	8/15/2013	3/31/2015	\$ 169,000	Toxics and Nutrients LO award managed by Dept. of Ecology	
P127	Runoff from the Environment	C2	28	Evaluate land uses and associated pollutants that would require treatment beyond sediment removal.	Trends in Polycyclic Aromatic Hydrocarbon Concentrations Sampled in the Tacoma Tideflats	Baker, Miller-Schulze	Baker, Miller-Schulze	253 254 7030 x 8009 (JMS)	jebaker@uw.edu jschulze@uw.edu	Sep-11	Jan-14	0	unfunded	TBA
P128	Runoff from the Environment	C2	29	Evaluate projected environmental benefits of structural stormwater retrofits given varying levels of effort to guide the extent of structural retrofits needed to help meet 2020 ecosystem recovery targets	Develop Project List for Stormwater Retrofits	Sean Ardussi	Puget Sound Regional Council	206-464-7080	Sardussi@psrc.org	6/1/2011	12/1/2011	\$ 123,000	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P129	Runoff from the Environment	C2	29	Evaluate projected environmental benefits of structural stormwater retrofits given varying levels of effort to guide the extent of structural retrofits needed to help meet 2020 ecosystem recovery targets	Hood Canal regional stormwater retrofit plan	Julie Horowitz	Hood Canal Coordinating Council	360-531-0575	jhorowitz@hcc.wa.gov	5/22/2012	4/30/2014	\$ 333,333	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	http://hccc.wa.gov/AquaticRehabilitation/Stormwater+Retrofit+Plan/
	Runoff from the Environment	C2	30	Evaluate individual and combined effects of commonly used pesticides on salmonids, other fish, and their foods.										
P130	Wastewater	C5, C6	31	Evaluate nitrogen reduction in public domain on-site system treatment technologies.	Onsite Septic System Nitrogen Removal		Dept. of Health and University of Washington					\$ 615,130	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.doh.wa.gov/CommunityandEnvironment/WastewaterManagement/OnsiteSewageSystemsOSS.aspx
P131	Wastewater	C5, C6	32	Implement studies of human-related contributions of nitrogen to dissolved oxygen impairments in sensitive Puget Sound marine waters.	Puget Sound Dissolved Oxygen Modeling Study: Development of an Intermediate Scale Water Quality Model	Khangaonkar, T. and W. Long (Pacific NW National Laboratory) and B. Sackmann, T. Mohamedali, and M. Roberts (Department of Ecology)	Dept. of Ecology	Brandon Sackmann at 360-407-6684	bsac461@ecy.wa.gov	10/1/2008	10/1/2013	\$ 699,827	Competitive award from EPA from FY 2009	https://fortress.wa.gov/ecy/publications/SummaryPages/1203049.html https://fortress.wa.gov/ecy/publications/publications/1203049.pdf
P132	Wastewater	C5, C6	32	Implement studies of human-related contributions of nitrogen to dissolved oxygen impairments in sensitive Puget Sound marine waters.	Effect of hypoxia on pelagic food webs	Essington, Horne, Keister, Parker-Stetter	University of Washington	206 616 3698	essing@uw.edu	6/1/2012	6/1/2015	\$ 1,200,000	NSF	
P133	Wastewater	C5, C6	32	Implement studies of human-related contributions of nitrogen to dissolved oxygen impairments in sensitive Puget Sound marine waters.	State of the Science for Shellfish Processes, Sediment Interactions, and Watershed Attenuation of Nitrogen in the Puget Sound Ecosystem	Richard Dinicola	USGS	253-552-1622	dinicola@usgs.gov	6/1/2012	#####	\$ 301,500	Toxics and Nutrients LO award managed by Dept. of Ecology	
P134	Wastewater	C5, C6	32	Implement studies of human-related contributions of nitrogen to dissolved oxygen impairments in sensitive Puget Sound marine waters.	Nutrient Synopsis	Karol Erickson and Christopher Krembs	Dept. of Ecology	360-407-6000	Karol.Erickson@ecy.wa.gov	7/18/2012	6/30/2014	\$ 130,256	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.ecy.wa.gov/programs/eap/Nitrogen/Index.html
P135	Wastewater	C5, C6	32	Implement studies of human-related contributions of nitrogen to dissolved oxygen impairments in sensitive Puget Sound marine waters.	Nutrient Bioextraction: Shellfish at Work	Aimee Christy	Pacific Shellfish Institute		aimee@pacshell.org	Feb-13		\$ 65,276	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.ecy.wa.gov/pugetsound/docs/fedgrantspsi_agreement.pdf
P136	Wastewater	C5, C6	32	Implement studies of human-related contributions of nitrogen to dissolved oxygen impairments in sensitive Puget Sound marine waters.	South Puget Sound Dissolved Oxygen Study: Interim Nutrient Load Summary for 2006-2007	Mindy Roberts	Dept. of Ecology	360-407-6804	Mindy.Roberts@ecy.wa.gov					https://fortress.wa.gov/ecy/publications/SummaryPages/1103057.html https://fortress.wa.gov/ecy/publications/publications/1103001.pdf

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P137	Wastewater	C5, C6	32	Implement studies of human-related contributions of nitrogen to dissolved oxygen impairments in sensitive Puget Sound marine waters.	Review and Synthesis of Available Information to Estimate Human Impacts to Dissolved Oxygen in Hood Canal	Co-PIs: Andrea Ogston, Jeff Cordell, Jason Toft (UW), Helen Berry (DNR)	University of Washington	206-543-0768	ogston@ocean.washington.edu					https://fortress.wa.gov/ecy/publications/SummaryPages/1303016.html
P138	Shellfish	C7	33	Establish and sustain pollution identification and correction (PIC) programs to identify and fix nonpoint pollution problems.	Pollution Identification and Correction: Hood Canal		Hood Canal Coordinating Council	Blake Nelson, 360-236-3307, Mary Knackstedt, 360-236-3319				\$ 99,626	Pathogens LO award from EPA managed by Depts. of Health and Ecology.	http://hccc.wa.gov/AquaticRehabilitation/Regional+PIC/
P139	Shellfish	C7	33	Establish and sustain pollution identification and correction (PIC) programs to identify and fix nonpoint pollution problems.	Pollution Identification and Correction: Kitsap County		Kitsap County	Blake Nelson, 360-236-3307, Mary Knackstedt, 360-236-3320				\$ 473,949	Pathogens LO award from EPA managed by Depts. of Health and Ecology.	
P140	Shellfish	C7	33	Establish and sustain pollution identification and correction (PIC) programs to identify and fix nonpoint pollution problems.	Pollution Identification and Correction: Pierce County		Pierce County	Blake Nelson, 360-236-3307, Mary Knackstedt, 360-236-3321				\$ 282,759	Pathogens LO award from EPA managed by Depts. of Health and Ecology.	
P141	Shellfish	C7	33	Establish and sustain pollution identification and correction (PIC) programs to identify and fix nonpoint pollution problems.	Pollution Identification and Correction: San Juan County		San Juan County	Blake Nelson, 360-236-3307, Mary Knackstedt, 360-236-3322	mrpepys2-0			\$ 472,533	Pathogens LO award from EPA managed by Depts. of Health and Ecology.	
P142	Shellfish	C7	33	Establish and sustain pollution identification and correction (PIC) programs to identify and fix nonpoint pollution problems.	Pollution Identification and Correction: Skagit County		Skagit County	Blake Nelson, 360-236-3307, Mary Knackstedt, 360-236-3323				\$ 400,978	Pathogens LO award from EPA managed by Depts. of Health and Ecology.	
P143	Shellfish	C7	33	Establish and sustain pollution identification and correction (PIC) programs to identify and fix nonpoint pollution problems.	Pollution Identification and Correction: Thurston County		Thurston County	Blake Nelson, 360-236-3307, Mary Knackstedt, 360-236-3324				\$ 426,898	Pathogens LO award from EPA managed by Depts. of Health and Ecology.	
P144	Shellfish	C7	33	Establish and sustain pollution identification and correction (PIC) programs to identify and fix nonpoint pollution problems.	Characterization of Compost Leachates	Markus Flury	Washington State University	253-445-4522	flury@wsu.edu	June 2012	July 2013	\$ 10,000	Washington State Department of Transportation	http://akasha.wsu.edu/~flury/research/compost.html

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P145	Shellfish	C7	34	Research and implement monitoring to understand the specific environmental conditions that produce toxic harmful algal blooms (HABs) and pathogen events.	Harmful Macroalgal Blooms in the Salish Sea Region	Kathryn Van Alstyne and Timothy Nelson	Western Washington University Seattle Pacific University	(360) 293-2189 x-226	kathy.vanalstyne@www.edu tnelson@spu.edu			\$ 909,980	NSF	<p>Nelson, T.A. and B.C. Gregg. 2013. Determination of EC-50 for normal oyster larval development in extracts from bloom-forming green seaweeds. <i>The Nautilus</i> 127(4):156-159.</p> <p>Nelson, TA, Olson, J, Imhoff, L, and Nelson, AV. 2010. Aerial exposure and desiccation tolerances are correlated to species composition in "green tides" of the Salish Sea (northeastern Pacific). <i>Botanica Marina</i> 53:103-111.</p> <p>Nelson, T.A., Haberlin, K., Nelson, A.V., Ribarich, H., Hotchkiss, R., Van Alstyne, K.L., Buckingham, L., Simunds, D.J., and Fredrickson, K. 2008. Ecological and physiological controls of species composition in green macroalgal blooms. <i>Ecology</i> 89:1287-1298.</p> <p>Nelson, T.A., Olson, J.K., Imhoff, L.D. 2009. Using underwater video analysis to determine ulvoid algal cover and overlap with eelgrass over a regional scale. Puget Sound Georgia Basin Ecosystem Conference, Seattle, Washington.</p> <p>van Hees DH, Van Alstyne KL (2013) Effects of emersion, temperature, dopamine, and hypoxia on extracellular oxidant accumulations surrounding the bloom-forming seaweeds <i>Ulva lactuca</i> and <i>Ulvaria obscura</i>. <i>Journal of Experimental Marine Biology and Ecology</i> 448: 207-213 DOI: 10.1016/j.jembe.2013.07.013</p> <p>Van Alstyne KL, Anderson KJ, van Hees DH, Gifford S-A. (2013) Dopamine release by <i>Ulvaria obscura</i> (Chlorophyta): environmental triggers and impacts on the photosynthesis, growth, and survival of the releaser. <i>Journal of Phycology</i> 49: 719-727, DOI: 10.1111/jpy.12081</p> <p>Van Alstyne KL, Flanagan J, Gifford, S.-A. (2011) Recreational clam harvesting affects sediment nutrient remineralization.</p>
P146	Shellfish	C7	34	Research and implement monitoring to understand the specific environmental conditions that produce toxic harmful algal blooms (HABs) and pathogen events.	Determine the ecology of the harmful algae <i>Alexandrium catenella</i> in Puget Sound and model bloom scenarios	Stephanie Moore	NOAA-F, NWFS	206-860-3327	stephanie.moore@noaa.gov	2010	2014	\$ 500,000	NOAA-NMFS, NOS	
P147	Shellfish	C7	34	Research and implement monitoring to understand the specific environmental conditions that produce toxic harmful algal blooms (HABs) and pathogen events.	SoundToxins Partnership Harmful Algal Blooms Monitoring	Vera Trainer Teri King	NOAA NWFS Dept. of Ecology	Teri King: 360.432.3054	For Teri King: guatemala@uw.edu	9/6/2012	8/31/2014	\$ 86,777	Toxics and Nutrients LO award managed by Dept. of Ecology	http://www.soundtoxins.org/
P148	Shellfish	C7	34	Research and implement monitoring to understand the specific environmental conditions that produce toxic harmful algal blooms (HABs) and pathogen events.	Regional Harmful Algal Blooms	Abella, Sally	King County DNR WLRD Science	206-296-8382 / 206-477-4605	sally.abella@kingcounty.gov	1-Jul	Sep-13	\$ 95,355	WA Dept. of Health / CDC	
	Oil Spills	C8	35	Evaluate existing oil spill risk assessments and complete additional risk analyses of higher risk industry sectors to ensure there are appropriate levels of investment in reducing risk.										
P149	Oil Spills	C8	36	Evaluate information on baseline conditions for key species at risk from oil spills and improve these as necessary so that baselines exist that can be used in assessments of natural resource damages.	Addressing Key Threats from Large Oil Spills through Data Analysis and Guidance on Risk Management	Todd Hass (PSP), Andy Carlson	Puget Sound Partnership	(360) 902-8125	Todd.Hass@psp.wa.gov, Andy.Carlson@dfw.wa.gov	8/13/2012	#####	\$ 200,000	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	http://www.seas.gwu.edu/~dorppj/tab4/publications_VTRA_UPdate_Reports.html
P150	Oil Spills	C8	36	Evaluate information on baseline conditions for key species at risk from oil spills and improve these as necessary so that baselines exist that can be used in assessments of natural resource damages.	Local Oil Spill Preparedness and Response Projects	Julia K. Parrish	University of Washington COASST	206.221.6893	jparrish@u.washington.edu			\$ 57,661		

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P151	Cumulative Water Pollution	C9	37	Expand monitoring of freshwater and marine water areas to assess human exposures to pollution during water-contact recreation.	Geographic Expansion of the Puget Sound Seabird Survey and Early On-Scene Training	Toby Ross (Seattle Audubon), Dan Doty (WDFW), John Neel (ECY)	Seattle Audubon Society	206-523-8243, ext. 21	TobyR@seattleaudubon.org, Dan.Doty@dfw.wa.gov, jnee461@ECY.WA.GOV	2/1/2011	8/31/2014	\$ 53,299	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P152	Cumulative Water Pollution	C9	37	Expand monitoring of freshwater and marine water areas to assess human exposures to pollution during water-contact recreation.	Bacterial Pollution at Recreational Puget Sound Beaches	Mary Knackstedt	Dept. of Health	360.464.1232	mary.knackstedt@doh.wa.gov			\$ 238,680	Pathogens LO award from EPA managed by Depts. of Health and Ecology.	http://www.ecy.wa.gov/programs/eap/beach/index.html
P153	Emerging Issues G Ocean Acidification	O.A.	38	Design and implement monitoring for ocean acidification variables across the Puget Sound to understand the status, diversity and range of conditions.	WA Shellfish Initiative Ocean Acidification Blue Ribbon Panel	Penelope Dalton, WSG Klinger and Newton, Co-Directors	Washington Sea Grant	206-685-9215	pdalton@u.washington.edu	3/16/2012	#####	\$ 20,000		http://www.ecy.wa.gov/water/marine/oceanacidification.html
P154	Emerging Issues G Ocean Acidification	O.A.	39	Develop and implement studies to assess the risk and vulnerability of Puget Sound species to ocean acidification.	Planktonic interactions in a changing ocean: Biological responses of <i>Emiliania huxleyi</i> to elevated pCO ₂ and their effects on microzooplankton	Brady Olson, Brooke Love Suzanne Strom	WWU	360-650-2894	Brooke.Love@wwu.edu	2/15/2010	3/31/2014	\$ 557,708	NSF	
P155	Emerging Issues G Ocean Acidification	O.A.	39	Develop and implement studies to assess the risk and vulnerability of Puget Sound species to ocean acidification.	Ocean Acidification: Impacts on copepod populations mediated by changes in prey quality	Brady Olson, Brooke Love (WWU), Julie Kiester (UW)	WWU and University of Washington	360-650-2894	Brooke.Love@wwu.edu	1/6/2013	#####	\$ 540,020	NSF	
P156	Emerging Issues G Ocean Acidification	O.A.	40	Develop adaptation strategies given assessed vulnerability to ocean acidification.	pH Model Scope	Karol Erickson	Dept. of Ecology and Pacific Northwest National Laboratory	360-407-6000	Karol.Erickson@ecy.wa.gov	8/30/2012	6/30/2013	\$ 40,000		
P157	Scientific Tools for Informing Policy	D1	41	Conduct institutional analyses of the overall governance and management structures in which Puget Sound recovery strategies operate.	Social Network analysis of Puget Sound ecosystem recovery scientists	Patrick Christie	University of Washington	206 685-6661	patrickc@u.washington.edu	Spring 2012	6/30/2013	\$ 36,613	Action Agenda implementation award from EPA to Puget Sound Partnership LO	SciencePanelspring2013meeting: http://www.mypugetsound.net/index.php?option=com_docman&task=cat_view&gid=621&Itemid=238
P158	Scientific Tools for Informing Policy	D1	41	Conduct institutional analyses of the overall governance and management structures in which Puget Sound recovery strategies operate.	Social Network analysis of environmental organizations in Puget Sound	Craig Thomas	University of Washington	206 221-3669	thomasc@washington.edu	Spring 2012	6/30/2013	\$ 34,000	Stewardship award from EPA to Puget Sound Partnership LO	SciencePanelspring2013meeting: http://www.mypugetsound.net/index.php?option=com_docman&task=cat_view&gid=621&Itemid=238
P159	Scientific Tools for Informing Policy	D1	42	Conduct integrated risk assessments of the impacts of different pressures on the Puget Sound ecosystem.	Multi-scale Soundwide pressure assessment: methods (USGS) & assessment (TBD)	Bill Labiosa	Puget Sound Partnership (USGS & tbd)	206-220-4563	blabiosa@usgs.gov	Aug-12	4/30/2014	\$ 440,000	Action Agenda implementation award from EPA to Puget Sound Partnership LO	
P160	Scientific Tools for Informing Policy	D1	43	Develop a systematic, transparent, and ecologically-based prioritization tool for near-term actions in the Action Agenda that will support evolutionary learning and adaptation.	Decision-analytic approach to LIO prioritization of pressures and strategies/actions	Richard Anderson	Puget Sound Institute (Anderson)	2532547030	rmanders@uw.edu	Jul-12	6/30/2014	\$ 242,116	Action Agenda implementation award from EPA to Puget Sound Partnership LO	
P161	Coordinated Ecosystem Monitoring	D3	44	Implement and sustain a comprehensive, coordinated monitoring program to understand the status of the Puget Sound and the effectiveness of recovery actions.	Monitoring program coordination	Ken Dzinbal	Puget Sound Partnership	360.464.1222	ken.dzinbal@psp.wa.gov	Jul-11	6/30/2014	\$ 1,224,000	Action Agenda implementation award from EPA to Puget Sound Partnership LO	
P162	Coordinated Ecosystem Monitoring	D3	44	Implement and sustain a comprehensive, coordinated monitoring program to understand the status of the Puget Sound and the effectiveness of recovery actions.	Evolution of ecosystem indicators	Sandie O'Neill	WDFW	Not listed	Not Listed	Apr-13	6/30/2014	\$ 102,000	Action Agenda implementation award from EPA to Puget Sound Partnership LO	
P163	Coordinated Ecosystem Monitoring	D3	44	Implement and sustain a comprehensive, coordinated monitoring program to understand the status of the Puget Sound and the effectiveness of recovery actions.	Land Use Regulation Environmental Effectiveness and Compliance	Gino Lucchetti	King County DNRP WLRD Science	206-296-8366 / 206-477-4759	gino.lucchetti@kingcounty.gov	Dec-13	Dec-13	\$ 624,732	Competitive award from EPA from FY 2009	

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P164	Coordinated Ecosystem Monitoring	D3	44	Implement and sustain a comprehensive, coordinated monitoring program to understand the status of the Puget Sound and the effectiveness of recovery actions.	WRIA 9 Marine Shoreline Monitoring and Compliance	Higgins, Kollin (King County)	King County DNRP WLRD Science	206-296-8026/ 206-447-4711	kollin.higgins@kingcounty.gov	6/4/2012	1/31/2014	\$ 43,703	Marine and Nearshore Protection and Restoration award managed by WDFW and DNR	
P165	Coordinated Ecosystem Monitoring	D3	44	Implement and sustain a comprehensive, coordinated monitoring program to understand the status of the Puget Sound and the effectiveness of recovery actions.	Pathogen Data Management and Reporting System		Washington State Dept. of Health					\$ 550,000	Pathogens LO award from EPA managed by Depts. of Health and Ecology.	
P166	Coordinated Ecosystem Monitoring	D3	44	Implement and sustain a comprehensive, coordinated monitoring program to understand the status of the Puget Sound and the effectiveness of recovery actions.	High Resolution Marine Water Quality Monitoring	Jan Newton	University of Washington	(206) 543-9152	newton@apl.washington.edu	9/6/2012	#####	\$ 125,000	Toxics and Nutrients LO award managed by Dept. of Ecology	http://orca.ocean.washington.edu/index.shtml
P167	Coordinated Ecosystem Monitoring	D3	44	Implement and sustain a comprehensive, coordinated monitoring program to understand the status of the Puget Sound and the effectiveness of recovery actions.	Ferry-Based Monitoring	Carol Maloy	Dept. of Ecology	360-407-6000	Carol.Maloy@ecy.wa.gov	10/22/2012	4/30/2015	\$ 261,107	Toxics and Nutrients LO award managed by Dept. of Ecology	
P168	Coordinated Ecosystem Monitoring	D3	44	Implement and sustain a comprehensive, coordinated monitoring program to understand the status of the Puget Sound and the effectiveness of recovery actions.	Stormwater Center	Joel Baker	University of Washington	253-254-7025	jebaker@washington.edu	Nov-11	1-Nov-12	\$ 27,000	Toxics and Nutrients LO award managed by Dept. of Ecology	
P169	Coordinated Ecosystem Monitoring	D3	44	Implement and sustain a comprehensive, coordinated monitoring program to understand the status of the Puget Sound and the effectiveness of recovery actions.	Measure program performance and use adaptive management to continuously improve programs	Scott Collyard	Washington Department of Ecology	360-407-6455	scott.collyard@ecy.wa.gov	Dec-12	1-Oct-16	\$ 150,000	Toxics and Nutrients LO award managed by Dept. of Ecology	
P170	Human Dimensions in Ecosystems	D7	45	Develop assessments of ecosystem services to help decision makers make informed decisions about restoration and protection.	Mapping recreation in the Hood Canal	Adi Hanein	University of Washington	Not Listed	ahanein@uw.edu	Jun-13	Jan-14		NSF and UW	
P171	Human Dimensions in Ecosystems	D7	45	Develop assessments of ecosystem services to help decision makers make informed decisions about restoration and protection.	Upper Nisqually ecosystem services demonstration	David Troutt	Nisqually Indian Tribe	360-456-5221	troutt.david@nisqually-nsn.gov	5/30/2012	#####	\$ 227,560	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P172	Human Dimensions in Ecosystems	D7	45	Develop assessments of ecosystem services to help decision makers make informed decisions about restoration and protection.	Watershed services market demonstration projects	Craig Partridge	WA Dept. of Natural Resources	360-902-1028	craig.partridge@dnr.wa.gov	2/1/2012	Closed	\$ 241,015	Grant from EPA to Watershed Protection and Restoration LO, managed by Depts. of Ecology and Commerce	
P173	Human Dimensions in Ecosystems	D7	45	Develop assessments of ecosystem services to help decision makers make informed decisions about restoration and protection.	The Values of Place: Recreation and Cultural Ecosystem Services in Puget Sound	Kai Chan Kristen Sheeran Mike Mertens Cheryl Chen, Noah Enelow Mollie Chapman Sarah Klain	University of British Columbia, Ecotrust	604-822-0400	kaichan@ires.ubc.ca				Puget Sound Institute/PSP	
P174	Human Dimensions in Ecosystems	D7	45	Develop assessments of ecosystem services to help decision makers make informed decisions about restoration and protection.	Evaluating Community Well-being in Relation to Shellfish as a Place- Based Cultural Ecosystem Service of the Puget Sound Region of the Salish Sea	Jamie Donatuto Melissa Poe Robin Gregory Terre Satterfield	Swinomish Indian Tribal Community NOAA/NWFSC Northwest Sustainability Institute University of British Columbia	Not Found	Not Found					

Appendix C1: Inventory of Projects

Project No.	Action Agenda Area	Action Agenda Strategy No.	PSA No.	Priority Science Action title (from 2011-13 BSWP)	Project Title	Name of Principal Investigator or project contact	Recipient or Implementing Institution	Phone no.	Email Address	Start date	End date	Budget	Funding source or LO	Reports and Publications
P175	Human Dimensions in Ecosystems	D7	45	Develop assessments of ecosystem services to help decision makers make informed decisions about restoration and protection.	Valuing killer whales, Chinook salmon and the ecosystem services they provide to people in the Puget Sound Region	Rob Williams Rashid Sumalla Andres Cisneros-Montemayor	University of St Andrews, Scottish Oceans Institute Fisheries Centre, University of British Columbia	(206) 221-6374	canada@uw.edu					
P176	Human Dimensions in Ecosystems	D7	46	Develop socioeconomic indicators to help measure and report on the human dimensions in ecosystem recovery.	Human Wellbeing (Quality of Life) Indicators in Hood Canal	Kelly Biedenweg	Stanford	2532547030	kbied@uw.edu	Sep-12	Oct-13	\$ 40,000	NSF, Puget Sount Institute and HCCC	http://www.eopugetsound.org/articles/report-developing-human-wellbeing-indicators-hood-canal-watershed
P177	Human Dimensions in Ecosystems	D7	46	Develop socioeconomic indicators to help measure and report on the human dimensions in ecosystem recovery.	Developing cultural indicators for salmon habitat restoration	Kelly Biedenweg	Stanford	2532547030	kbied@uw.edu	Sep-12	2013	\$ 30,000	NSF and TNC	
P178	Human Dimensions in Ecosystems	D7	47	Conduct a baseline literature review of social science research and a survey of data to identify resources and gaps that can be readily available and used by ecosystem recovery planners and practitioners.	Sound Behavior Index	Dave Ward	Puget Sound Partnership	206.462.2275	dave.ward@psp.wa.gov					PSP Sound Behavior & Social Capital (S)
P179	Human Dimensions in Ecosystems	D7	48	Evaluate the most effective combinations of regulatory, incentive, and educational programs for different demographics in Puget Sound.	Human Dimensions of Puget Sound Ecosystem Health and Recovery: Social Sciences Scale and Scope	Kathy Wolf	University of Washington/USFS	206 616-5758	kwolf@uw.edu	\$ 37,500				UW (Wolf & Rozance) Human Dimensions of Puget Sound Ecosystem Health: Chapter Ch2B of the Puget Sound Science Update[5] (old NEP)
P180	Habitats	B2, B3	[none]	[none]	Effects of lake shoreline development on terrestrial-aquatic resource subsidies	Julian D. Olden	University of Washington	206-616-3112	olden@u.washington.edu					
P181	Species and Foodwebs	B5	[none]	[none]	Hybridization in Puget Sound rockfish	Lorenz Hauser	University of Washington	206 685 3270	lhauser@u.washington.edu					