Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Salt Creek	SCA#1	HRA	The Salt Creek estuary and salt marsh is partially disconnected from the mainstem of Salt Creek by a 1,000 foot long, 10 foot high road which was installed in the early 1920's (Shaffer et al. 2006). WDFW and the landowner of the road are working together to restore the function of the Salt Creek estuary with the specific collective goals of: 1) Improving fish access; 2) Decreasing mosquito populations, and; 3) Possibly provide additional water storage during high flows, while maintaining the current level of access (Shaffer et al. 2006). Based upon these goals WDFW and the land owner have proposed at a minimum, replacing the two failed box culverts with a minimum of 6 foot diameter round concrete culverts (Shaffer et al. 2006).	Estuary and Nearshore Processes and Habitat Conditions	High	Salt Creek Recovery Strategy 2	2/3	Salt Creek Recovery Goal 1	WDFW		
Salt Creek	SCA#2	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Estuary and Nearshore Processes and Habitat Conditions	High	Salt Creek Recovery Strategy 3	1	Salt Creek Recovery Goal 1	Not Defined		
Salt Creek	SCA#3a	HRA	Install fish passable culvert on Hart Creek (Camp Hayden Road). A fish passable culvert will provide access to approximately 0.1 miles of low gradient (<4%) fish habitat.	Habitat Connectivity	Medium	Salt Creek Recovery Strategy 5	2	Salt Creek Recovery Goal 2	Clallam County		
Salt Creek	SCA#3b	HRA	Implement comprehensive fish passage program directed at Kreaman Creek and tributaries. Currently 5 culverts partially or totally block access to 0.37, 1.08, 0.38, 0.50, and 0.40 miles of <1%, 1-2%, 2-4%, 4-8%, and 8-20% gradient habitat respectively.	Habitat Connectivity	Medium	Salt Creek Recovery Strategy 5	2	Salt Creek Recovery Goal 2	Not Defined		
Salt Creek	SCA#3c	HRA	The Nordstrom Creek SR 112 culvert is a partial fish barrier, replacing this structure with a fully passable stream crossing structure will enhance fish passage to 0.78, 1.27, 0.81, and 0.48 miles of 1-2%, 2-4%, 4-8% and 8-20% gradient habitat respectively.	Habitat Connectivity	Medium	Salt Creek Recovery Strategy 5	2	Salt Creek Recovery Goal 2	WDOT		
Salt Creek	SCA#3d	HRA	The Falls Creek (tributary to Nordstrom Creek) SR 112 culvert is a partial barrier. Replacement of this stream crossing will provide passage to 1.15, 0.45, and 0.49 miles of 1-2%, 2-4%, and 4-8% gradient habitat respectively	Habitat Connectivity	Medium	Salt Creek Recovery Strategy 5	2	Salt Creek Recovery Goal 2	WDOT		
Salt Creek	SCA#3e	HRA	Conduct fish passage culvert inventory in upper Nordstrom, Wasankari, and Lijendahl creeks. Prioritize and replace fish barriers within this portion of the watershed.	Habitat Connectivity	Medium	Salt Creek Recovery Strategy 5	1/2	Salt Creek Recovery Goal 2	Various		
Salt Creek	SCA#4	RM&E and HRA	Assess series of constructed private ponds throughout the watershed for fish passage issues affecting habitat connectivity. Prioritize streams/ponds for fish passage improvements and implement fish passage restoration program.	Habitat Connectivity	Medium	Salt Creek Recovery Strategy 5	2	Salt Creek Recovery Goal 2	Not Defined		
Salt Creek	SCA#5	PA	Advocate for the enforcement of existing regulations that protect and provide for fish passage.	Habitat Connectivity	Medium	Salt Creek Recovery Strategy 4	1	Salt Creek Recovery Goal 2	Various		
Salt Creek	SCA#6	PA	Advocate implementation of the Hatchery Scientific Review Group (HSRG) recommendations set for forth in the 2004 Hatchery Reform Report (HSRG 2004), which recommend no hatchery fish outplanting into the Salt Creek watershed.	Biological Processes	Medium	Salt Creek Recovery Strategy 6	1	Salt Creek Recovery Goal 3	WDFW and Tribes		
Salt Creek	SCA#7	PA	Advocate the adoption of harvest management regulations that ensure salmonid spawning escapement is sufficient to maintain, protect, and/or restore salmonid VSP parameters.	Biological Processes	Medium	Salt Creek Recovery Strategy 7	1	Salt Creek Recovery Goal 3	WDFW and Tribes		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Salt Creek	SCA#8	RM&E and PA	Implement and/or continue to implement population abundance monitoring.	Biological Processes	Medium	Salt Creek Recovery Strategy 7	1	Salt Creek Recovery Goal 3	WDFW and Tribes		
Salt Creek	SCA#9	HRA and PA	Reintroduction and management of beaver (*Castor canadensis)* in portions of the Salt Creek watershed could help restore wetland functions. Potential areas for consideration should include low gradient streams without significant human infrastructure (e.g., the mainstem below river mile 5.0, Kreaman Creek, Oien Creek, unnamed tributaries 19.0009 and 19.0010).	Hydrologic Processes	Medium	Salt Creek Recovery Strategy 8	3	Salt Creek Recovery Goal 4	Not Defined		
Salt Creek	SCA#10	HRA	Reforestation of unutilized pastures and other open areas could help improve hydrologic processes.	Hydrologic Processes	Medium	Salt Creek Recovery Strategy 8	3	Salt Creek Recovery Goal 4	Various		
Salt Creek	SCA#11	HRA	Reduce road related hydrologic impacts by reducing road densities and/or disconnecting road systems from the stream network.	Hydrologic Processes	Medium	Salt Creek Recovery Strategy 8	3	Salt Creek Recovery Goal 4	Various		
Salt Creek	SCA#12	PA	Limit future water withdrawals from the Salt Creek watershed through the implementation of the WRIA 19 Watershed Plan (WRIA 19 Planning Unit 2010).	Hydrologic Processes	Medium	Salt Creek Recovery Strategy 8	1	Salt Creek Recovery Goal 4	DOE		
Salt Creek	SCA#13	HRA	Inventory roads for maintenance (use existing RMAP and other available data), side cast removal, and drainage structure improvements. Prioritize for project actions.	Sediment Processes	Low	Salt Creek Recovery Strategy 9 & 10	3	Salt Creek Recovery Goal 5	Various		
Salt Creek	SCA#14	HRA	Reforest riparian and floodplain areas to increase stream bank integrity and reduce bank erosion (see also Section 7.1.1.6).	Sediment Processes	Low	Salt Creek Recovery Strategy 11	3	Salt Creek Recovery Goal 5	Various		
Salt Creek	SCA#15	HRA	Treatment of channel incision in the mainstem of Salt Creek from RM 0.5 to 6.0 (note RM 2.5 to 3.5 were treated with LWD placement in 2006.	Riparian and Floodplain Processes and Conditions	High	Salt Creek Recovery Strategy 12	3/4	Salt Creek Recovery Goal 6	Elwha Tribe, private landowners		
Salt Creek	SCA#16	HRA	Develop and implement a treatment plan for channel incision from RM 0 to RM 1.0 in Nordstrom Creek.	Riparian and Floodplain Processes and Conditions	High	Salt Creek Recovery Strategy 12	3/4	Salt Creek Recovery Goal 6	Elwha Tribe, private landowners		
Salt Creek	SCA#17	HRA	Develop and implement restoration treatment that includes the abandonment of the Camp Hayden spur road, LWD placement, and riparian planting. This will help restore channel migration processes and reconnect portions of the floodplain with the mainstem.	Riparian and Floodplain Processes and Conditions	High	Salt Creek Recovery Strategy 12	3/4	Salt Creek Recovery Goal 6	Elwha Tribe, private landowners		
Salt Creek	SCA#18	RM&E and HRA	Evaluate the Thompson Road Bridge across mainstem Salt Creek for impacts to flood flow and floodplain	Riparian and Floodplain Processes and Conditions	High	Salt Creek Recovery Strategy 12	1/3	Salt Creek Recovery Goal 6	Not Defined		
Salt Creek	SCA#19	HRA	Replace undersized Oien Road Bridge across mainstem Salt Creek	Riparian and Floodplain Processes and Conditions	High	Salt Creek Recovery Strategy 12	3	Salt Creek Recovery Goal 6	Not Defined		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Salt Creek	SCA#20	HRA	Implement riparian restoration projects within the 54 degraded riparian stream segments identified by McHenry et al. (2004). A total of 18.2 linear miles of riparian habitat could benefit from riparian restoration treatments. In addition, they identified 4.3 miles of stream adjacent roads within these 54 riparian segments that are affecting riparian conditions. For detailed riparian segment level data please refer to Table 20 in McHenry et al. (2004).	Riparian and Floodplain Processes and Conditions	High	Salt Creek Recovery Strategy 13	3	Salt Creek Recovery Goal 6	Various		
Salt Creek	SCA#21	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Riparian and Floodplain Processes and Conditions	High	Salt Creek Recovery Strategy 13	1	Salt Creek Recovery Goal 6	Not Defined		
Salt Creek	SCA#22	RM&E and PA	Map and delineate channel migration zones within the Salt Creek watershed.	Riparian and Floodplain Processes and Conditions	High	Salt Creek Recovery Strategy 13	1	Salt Creek Recovery Goal 6	Clallam County and others		
Salt Creek	SCA#23	PA	Advocate and support a WRIA 19 representative of the North Olympic Peninsula Lead Entity (NOPLE) to participate in the Forest and Fish policy group. Individual would provide a conduit for information between the forest practices AM program and the salmon recovery efforts of NOPLE.	Riparian and Floodplain Processes and Conditions	High	Salt Creek Recovery Strategy 14	na	Salt Creek Recovery Goal 6	NOPLE		
Salt Creek	SCA#24	HRA	Work with landowners to develop comprehensive stream restoration and habitat access program for Barr Creek (Falls Creek tributary)	Habitat and LWD Conditions	Medium	Salt Creek Recovery Strategies 5, 13, 15, 16	1-4	Salt Creek Recovery Goal 7	Not Defined		
Salt Creek	SCA#25	HRA	Work with landowner(s) to develop comprehensive stream restoration program on lower Salt, Kreaman, and Hart creeks. The project area is located on lower Salt Creek and includes unconstrained portions of the floodplain channel, as well as lower Kreaman Creek, which enters Salt Creek across its floodplain. An unnamed tributary, Hart Creek drains into Salt Creek after crossing Camp Hayden Road.	Habitat and LWD Conditions	Medium	Salt Creek Recovery Strategies 5, 13, 15, 16	1-4	Salt Creek Recovery Goal 7	Not Defined		
Salt Creek	SCA#26	HRA	Work with landowner to develop comprehensive stream restoration program on Bear Cree. The project area includes approximately 0.5 miles of Bear Creek south of Liljedahl Road.	Habitat and LWD Conditions	Medium	Salt Creek Recovery Strategies 13 and 16	3/4	Salt Creek Recovery Goal 7	Not Defined		
Salt Creek	SCA#27	RM&E	Implement long-term surface water quality monitoring program (e.g., temperature, dissolved oxygen, pH, conductivity, turbidity, BIBI). Also include monitoring of hydrocarbons and other potential contaminants.	Water Quality Conditions	Low	Salt Creek Recovery Strategy 17	1	Salt Creek Recovery Goal 8	Not Defined		
Salt Creek	SCA#28	PA	Advocate for effective implementation and enforcement of Forest Practice Rules and County Critical Areas Ordinances.	Water Quality Conditions	Low	Salt Creek Recovery Strategy 18	na	Salt Creek Recovery Goal 8	Not Defined		
Lyre River	LRA#1	RM&E and HRA	To the west of the mouth of the Lyre River investigate impacts of bulkhead structure to physical habitat forming processes and sediment movement within the drift cell.	Estuary and Nearshore Processes and Habitat Conditions	Medium	Lyre River Recovery Strategy 2	1/3	Lyre River Recovery Goal 1	Not Defined		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Lyre River	LRA#2	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Estuary and Nearshore Processes and Habitat Conditions	Medium	Lyre River Recovery Strategy 3	1	Lyre River Recovery Goal 1	Not Defined		
Lyre River	LRA#3a	HRA	Work with Clallam County PUD, WDOT, WDNR, and private landowners to assess, prioritize, and correct potential fish barriers in the Nelson Creek subbasin.	Habitat Connectivity	Low	Lyre River Recovery Strategy 5	2	Lyre River Recovery Goal 2	Various		
Lyre River	LRA#3b	HRA	The mainstem of Susie Creek is free of fish barriers, however, the status of barriers in tributaries to Susie Creek is undocumented. Work with WDNR and private landowners to assess, prioritize, and correct potential fish barriers in tributaries to the Susie Creek subbasin.	Habitat Connectivity	Low	Lyre River Recovery Strategy 5	1/2	Lyre River Recovery Goal 2	Various		
Lyre River	LRA#4	PA	Advocate implementation of the Hatchery Scientific Review Group (HSRG) recommendations set for forth in the 2004 Hatchery Reform Report (HSRG 2004), which recommend the discontinuation of hatchery outplanting in the Lyre River watershed.	Biological Processes	Medium	Lyre River Recovery Strategy 6	1	Lyre River Recovery Goal 3	WDFW and Tribes		
Lyre River	LRA#5	PA	Advocate the adoption of harvest management regulations that ensure salmonid spawning escapement is sufficient to maintain, protect, and/or restore salmonid VSP parameters.	Biological Processes	Medium	Lyre River Recovery Strategy 7	1	Lyre River Recovery Goal 3	WDFW and Tribes		
Lyre River	LRA#6	RM&E and PA	Implement and/or continue to implement population abundance monitoring.	Biological Processes	Medium	Lyre River Recovery Strategy 7	1	Lyre River Recovery Goal 3	WDFW and Tribes		
Lyre River	LRA#7	HRA	Reforestation of riparian forest and wetlands associated with floodplains to improve hydrologic processes related to flood capacity within the flood plain areas.	Hydrologic Processes	Low	Lyre River Recovery Strategy 8	3	Lyre River Recovery Goal 4	Not Defined		
Lyre River	LRA#8	HRA	Reduce road related hydrologic impacts by reducing road densities and/or disconnecting road systems from the stream network.	Hydrologic Processes	Low	Lyre River Recovery Strategy 8	3	Lyre River Recovery Goal 4	Various		
Lyre River	LRA#9	PA	Limit future water withdrawals from the Lyre River watershed through the implementation of the WRIA 19 Watershed Plan (WRIA 19 Planning Unit 2010).	Hydrologic Processes	Low	Lyre River Recovery Strategy 8	1	Lyre River Recovery Goal 4	DOE		
Lyre River	LRA#10	HRA	Inventory roads for maintenance (use existing RMAP and other available data), side cast removal, and drainage structure improvements. Prioritize for project actions.	Sediment Processes	Medium	Lyre River Recovery Strategy 9	3	Lyre River Recovery Goal 5	Various		
Lyre River	LRA#11	HRA	Inventory roads for decommissioning, drainage structure removal and restoration of stream segments within the crossing structure.	Sediment Processes	Medium	Lyre River Recovery Strategy 10	3	Lyre River Recovery Goal 5	Various		
Lyre River	LRA#12	HRA	Reduce road related hydrologic impacts by reducing road densities and/or disconnecting road systems from the stream network.	Riparian and Floodplain Processes and Conditions	Medium	Lyre River Recovery Strategy 11	3	Lyre River Recovery Goal 6	Various		
Lyre River	LRA#13	HRA	Treatment and restoration of the lower 2.0 miles of the mainstem Lyre River including LWD placement, and riparian planting. This will help restore channel migration processes and reconnect portions of the floodplain with the Lyre mainstem.	Riparian and Floodplain Processes and Conditions	Medium	Lyre River Recovery Strategy 12	3/4	Lyre River Recovery Goal 6	Not Defined		
Lyre River	LRA#14	HRA	Based on results of a watershed assessment, implement riparian restoration projects within degraded riparian stream segments. Identify stream adjacent roads within these riparian segments that are affecting riparian conditions.	Riparian and Floodplain Processes and Conditions	Medium	Lyre River Recovery Strategy 11, 12	3	Lyre River Recovery Goal 6	Not Defined		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Lyre River	LRA#15	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Riparian and Floodplain Processes and Conditions	Medium	Lyre River Recovery Strategy 12	1	Lyre River Recovery Goal 6	Not Defined		
Lyre River	LRA#16	PA	Map and delineate channel migration zones within the Salt Creek watershed.	Riparian and Floodplain Processes and Conditions	Medium	Lyre River Recovery Strategy 12	1	Lyre River Recovery Goal 6	Clallam County and others		
Lyre River	LRA#17	PA	Advocate and support a WRIA 19 representative of the North Olympic Peninsula Lead Entity (NOPLE) to participate in the Forest and Fish policy group. Individual would provide a conduit for information between the forest practices AM program and the salmon recovery efforts of NOPLE.	Riparian and Floodplain Processes and Conditions	Medium	Lyre River Recovery Strategy 13	na	Lyre River Recovery Goal 6	NOPLE		
Lyre River	LRA#18	RM&E and HRA	Conduct a comprehensive watershed assessment to investigate current habitat conditions and better identify limiting factors affecting salmonids. Upon completion of a Lyre River watershed assessment develop a detailed list of projects to improve instream habitat and LWD conditions in the Lyre river sub basin. Implement a systematic enhancement of habitat by introducing LWD.	Habitat and LWD Conditions	Unknown	Lyre River Recovery Strategy 1, 5, 13, and 14	1/3/4	Lyre River Goal 1, 2, and 7	Not Defined		
Lyre River	LRA#19	RM&E	Implement long-term surface water quality monitoring program (e.g., temperature, dissolved oxygen, pH, conductivity, turbidity, BIBI).	Water Quality Conditions	Unknown	Lyre River Recovery Strategy 15	1	Lyre River Recovery Goal 8	Not Defined		
Lyre River	LRA#20	PA	Develop and implement a compliance monitoring program in the Lyre River to ensure effective implementation and enforcement of Forest Practice Rule and County Critical areas Ordinances.	Water Quality Conditions	Unknown	Lyre River Recovery Strategy 16	na	Lyre River Recovery Goal 8	DNR and Clallam County		
Lyre River	LRA#21	RM&E	Inventory and prioritize sources of water quality impacts including sources of fine sediment and channel reaches with deficient riparian vegetation.	Water Quality Conditions	Unknown	Lyre River Recovery Strategy 9, 10, and 16	1	Lyre River Recovery Goal 8	Not Defined		
Twin Rivers	TRA#1	HRA	To the west of the mouth of the West Twin River remove the sheet pile and mole structure to restore physical habitat forming processes and sediment movement within the drift cell.	Estuary and Nearshore Processes and Habitat Conditions	High	Twin Rivers Recovery Strategy 2	3	Twin Rivers Recovery Goal 1	Not Defined		
Twin Rivers	TRA#2	RM&E	Assess historical estuarine and nearshore habitat that has been affected by SR 112 and the historical alterations that have disrupted floodplain connectivity between the Twin Rivers. Include an investigation into the potential impacts of macro-algae blooms on estuarine-nearshore water quality. Implement the recommendation from this assessment.	Estuary and Nearshore Processes and Habitat Conditions	High	Twin Rivers Recovery Strategy 2	1	Twin Rivers Recovery Goal 1	Not Defined		
Twin Rivers	TRA#3	HRA	Investigate the potential implementation of a conservation easement (or the direct acquisition) for the private property between the mouths of the Twin Rivers.	Estuary and Nearshore Processes and Habitat Conditions	High	Twin Rivers Recovery Strategy 1, 3	1	Twin Rivers Recovery Goal 1	Not Defined		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Twin Rivers	TRA#4	RM&E and HRA	Identify water-crossing and road inventories from basin landowners and combine into single basin-wide inventory. Where water-crossing information is lacking or missing, work with landowners to inventory and assess. Use a basin-wide approach to identify biological, physical, and process-based metrics for prioritizing future habitat connectivity projects.	Habitat Connectivity	Low	Twin Rivers Recovery Strategy 5	1/2	Twin Rivers Recovery Goal 2	Not Defined		
Twin Rivers	TRA#5a	HRA	Culvert on the USFS 3040 Road at RM 0.8 on the East Fork of the East Twin River is currently classified as a complete barrier to fish. Replace (or remove) the culvert with crossing structure that allows for better fish passage.	Habitat Connectivity	Low	Twin Rivers Recovery Strategy 5	2	Twin Rivers Recovery Goal 2	USFS		
Twin Rivers	TRA#5b	HRA	Replace barrier culvert in unnamed tributary 19.0106 with stream crossing structure that allows for better fish passage.	Habitat Connectivity	Low	Twin Rivers Recovery Strategy 5	2	Twin Rivers Recovery Goal 2	Not Defined		
Twin Rivers	TRA#6	PA	Advocate implementation of the Hatchery Scientific Review Group (HSRG) recommendations set for forth in the 2004 Hatchery Reform Report (HSRG 2004).	Biological Processes	Medium	Twin Rivers Recovery Strategy 6	1	Twin Rivers Recovery Goal 3	WDFW and Tribes		
Twin Rivers	TRA#7	PA	Advocate the adoption of harvest management regulations that ensure salmonid spawning escapement is sufficient to maintain, protect, and/or restore salmonid VSP parameters.	Biological Processes	Medium	Twin Rivers Recovery Strategy 7	1	Twin Rivers Recovery Goal 3	WDFW and Tribes		
Twin Rivers	TRA#8	RM&E and PA	Implement and/or continue to implement population abundance monitoring.	Biological Processes	Medium	Twin Rivers Recovery Strategy 7	1	Twin Rivers Recovery Goal 3	WDFW and Tribes		
Twin Rivers	TRA#9	HRA	Reforestation of riparian forest and reconnection of wetland hydrology associated with floodplains to improve hydrologic processes related to flood capacity within the flood plain areas.	Hydrologic Processes	Medium	Twin Rivers Recovery Strategy 8	3	Twin Rivers Recovery Goal 4	Not Defined		
Twin Rivers	TRA#10	HRA	Reduce road related hydrologic impacts by reducing road densities and/or disconnecting road systems from the stream network.	Hydrologic Processes	Medium	Twin Rivers Recovery Strategy 8	3	Twin Rivers Recovery Goal 4	Not Defined		
Twin Rivers	TRA#11	PA	Limit future water withdrawals from the Twin Rivers watershed through the implementation of the WRIA 19 Watershed Plan (WRIA 19 Planning Unit 2010).	Hydrologic Processes	Medium	Twin Rivers Recovery Strategy 8	1	Twin Rivers Recovery Goal 4	DOE		
Twin Rivers	TRA#12	HRA	Inventory roads for maintenance (use existing RMAP and other available data), side cast removal, and drainage structure improvements. Prioritize for project actions.	Sediment Processes	High	Twin Rivers Recovery Strategy 9, 10	3	Twin Rivers Recovery Goal 5	Various		
Twin Rivers	TRA#13	HRA	Reforest riparian and floodplain areas to increase stream bank integrity and reduce bank erosion.	Sediment Processes	High	Twin Rivers Recovery Strategy 12	3	Twin Rivers Recovery Goal 5	Not Defined		
Twin Rivers	TRA#14	HRA	Reduce road related hydrologic impacts by reducing road densities and/or disconnecting road systems from the stream network.	Riparian and Floodplain Processes and Conditions	Medium	Twin Rivers Recovery Strategy 10, 11	3	Twin Rivers Recovery Goal 4 and 6	Not Defined		
Twin Rivers	TRA#15	HRA	Develop and implement restoration treatment that includes LWD placement and riparian planting/enhancement. This will help restore channel migration processes and reconnect portions of the floodplain with the mainstem.	Riparian and Floodplain Processes and Conditions	Medium	Twin Rivers Recovery Strategy 11, 12	3/4	Twin Rivers Recovery Goal 6 and 7	Elwha Tribe		
Twin Rivers	TRA#16	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Riparian and Floodplain Processes and Conditions	Medium	Twin Rivers Recovery Strategy 12	1	Twin Rivers Recovery Goal 6	Not Defined		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Twin Rivers	TRA#17	RM&E and PA	Map and delineate channel migration zones within the East and West Twin Rivers watershed.	Riparian and Floodplain Processes and Conditions	Medium	Twin Rivers Recovery Strategy 12	1	Twin Rivers Recovery Goal 6	Clallam County and others		
Twin Rivers	TRA#18	PA	Advocate and support a WRIA 19 representative of the North Olympic Peninsula Lead Entity (NOPLE) to participate in the Forest and Fish policy group. Individual would provide a conduit for information between the forest practices AM program and the salmon recovery efforts of NOPLE.	Riparian and Floodplain Processes and Conditions	Medium	Twin Rivers Recovery Strategy 13	na	Twin Rivers Recovery Goal 6	NOPLE		
Twin Rivers	TRA#19	RM&E	Implement long-term surface water quality monitoring program (e.g., temperature, dissolved oxygen, pH, conductivity, turbidity, BIBI).	Water Quality Conditions	Unknown	Twin Rivers Recovery Strategy 15	1	Twin Rivers Recovery Goal 8	Not Defined		
Twin Rivers	TRA#20	PA	Advocate for effective implementation and enforcement of Forest Practice Rules and County Critical Areas Ordinances.	Water Quality Conditions	Unknown	Twin Rivers Recovery Strategy 16	na	Twin Rivers Recovery Goal 8	DNR and Clallam County		
Twin Rivers	TRA#21	RM&E	Inventory and prioritize sources of water quality impacts including sources of fine sediment and channel reaches with deficient riparian vegetation.	Water Quality Conditions	Unknown	Twin Rivers Recovery Strategy 9, 10, 16	1	Twin Rivers Recovery Goal 8	Not Defined		
Deep Creek	DCA#1a	HRA	Two separate culverts (SR 112) on an unnamed tributary to Deep Creek block an unquantified amount of potential salmonid habitat. Replace culverts with crossing structures that allow for better fish passage.	Habitat Connectivity	Low	Deep Creek Recovery Strategy 4	2	Deep Creek Recovery Goal 2	WDOT		
Deep Creek	DCA#1b	HRA	Replace the partial barrier culvert (M&R 3100 Road) on an unnamed tributary to the W.F. Deep Creek with stream crossing structure that allows for better fish passage.	Habitat Connectivity	Low	Deep Creek Recovery Strategy 4	2	Deep Creek Recovery Goal 2	?		
Deep Creek	DCA#1c	HRA	Compile existing RMAP data and conduct fish passage culvert inventory for uninventoried portions of the Deep Creek watershed. Prioritize and replace fish barriers within the Deep Creek watershed.	Habitat Connectivity	Low	Deep Creek Recovery Strategy 4	1/2	Deep Creek Recovery Goal 2	?		
Deep Creek	DCA#2	PA	Advocate implementation of the Hatchery Scientific Review Group (HSRG) recommendations set for forth in the 2004 Hatchery Reform Report (HSRG 2004).	Biological Processes	Medium	Deep Creek Recovery Strategy 5	1	Deep Creek Recovery Goal 3	WDFW and Tribes		
Deep Creek	DCA#3	PA	Advocate the adoption of harvest management regulations that ensure salmonid spawning escapement is sufficient to maintain, protect, and/or restore salmonid VSP parameters.	Biological Processes	Medium	Deep Creek Recovery Strategy 6	1	Deep Creek Recovery Goal 3	WDFW and Tribes		
Deep Creek	DCA#4	RM&E and PA	Implement and/or continue to implement population abundance monitoring.	Biological Processes	Medium	Deep Creek Recovery Strategy 6	1	Deep Creek Recovery Goal 3	WDFW and Tribes		
Deep Creek	DCA#5	HRA	Reforestation of riparian forest and wetlands associated with flood plains to improve hydrologic processes related to flood capacity within the flood plain areas.	Hydrologic Processes	Medium	Deep Creek Recovery Strategy 7	3	Deep Creek Recovery Goal 4	Not Defined		
Deep Creek	DCA#6	HRA	Reduce road related hydrologic impacts by reducing road densities and/or disconnecting road systems from the stream network.	Hydrologic Processes	Medium	Deep Creek Recovery Strategy 7	3	Deep Creek Recovery Goal 4	Not Defined		
Deep Creek	DCA#7	PA	Limit future water withdrawals from the Deep Creek watershed through the implementation of the WRIA 19 Watershed Plan (WRIA 19 Planning Unit 2010).	Hydrologic Processes	Medium	Deep Creek Recovery Strategy 7	1	Deep Creek Recovery Goal 4	DOE		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Deep Creek	DCA#8	HRA	Inventory roads for maintenance (use existing RMAP and other available data), side cast removal, and drainage structure improvements. Prioritize for project actions.	Sediment Processes	Medium	Deep Creek Recovery Strategy 8, 9	3	Deep Creek Recovery Goal 5	Various		
Deep Creek	DCA#9	HRA	Reforest riparian and floodplain areas to increase stream bank integrity and reduce bank erosion.	Sediment Processes	Medium	Deep Creek Recovery Strategy 12	3	Deep Creek Recovery Goal 5	Not Defined		
Deep Creek	DCA#10	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Riparian and Floodplain Processes and Conditions	Medium	Deep Creek Recovery Strategy 12	1	Deep Creek Recovery Goal 6	Not Defined		
Deep Creek	DCA#11	RM&E and PA	Map and delineate channel migration zones within the Deep Creek watershed.	Riparian and Floodplain Processes and Conditions	Medium	Deep Creek Recovery Strategy 12	1	Twin Rivers Recovery Goal 6	Clallam County and others		
Deep Creek	DCA#12	PA	Advocate and support a WRIA 19 representative of the North Olympic Peninsula Lead Entity (NOPLE) to participate in the Forest and Fish policy group. Individual would provide a conduit for information between the forest practices AM program and the salmon recovery efforts of NOPLE.	Riparian and Floodplain Processes and Conditions	Medium	Deep Creek Recovery Strategy 13	na	Twin Rivers Recovery Goal 6	NOPLE		
Deep Creek	DCA#13	RM&E	Implement long-term surface water quality monitoring program (e.g., temperature, dissolved oxygen, pH, conductivity, turbidity, BIBI).	Water Quality Conditions	Medium	Deep Creek Recovery Strategy 15	1	Twin Rivers Recovery Goal 8	Not Defined		
Deep Creek	DCA#14	PA	Advocate for effective implementation and enforcement of Forest Practice Rules and County Critical Areas Ordinances.	Water Quality Conditions	Medium	Deep Creek Recovery Strategy 16	na	Twin Rivers Recovery Goal 8	DNR and Clallam County		
Deep Creek	DCA#15	RM&E	Inventory and prioritize sources of water quality impacts including sources of fine sediment and channel reaches with deficient riparian vegetation.	Water Quality Conditions	Medium	Deep Creek Recovery Strategy 8-12	1	Twin Rivers Recovery Goal 8	Not Defined		
Pysht River	PRA#1	HRA	Implement recommendations from estuary restoration feasibility study. Project actions may include dredge spoil removal, restoring tidal connectivity to isolated channels, removal of sheet pile, removal of roads associated with log storage facilities, etc.	Estuary and nearshore processes and habitat conditions	High	Pysht River Recovery Strategy 2	2-4	Pysht River Recovery Goal 1	M&R/Elwha Tribe		
Pysht River	PRA#2	HRA	Reconnect tidal wetlands (specifically within the central portion of the Pysht River meander, these are the wetlands affected by the east side road system).	Estuary and nearshore processes and habitat conditions	High	Pysht River Recovery Strategy 2	2	Pysht River Recovery Goal 1	M&R/Elwha Tribe		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Pysht River	PRA#3a	HRA	Replace Farm Road culvert on Indian Creek with crossing structure that allows for better fish passage, decreases erosion, and restores complete tidal connectivity.	Estuary and nearshore processes and habitat conditions	High	Pysht River Recovery Strategy 2	2	Pysht River Recovery Goal 1	M&R/Elwha Tribe		
Pysht River	PRA#3b	HRA	Replace Farm Road culvert on Indian Slough with crossing structure that allows for better fish passage and complete tidal connectivity.	Estuary and nearshore processes and habitat conditions	High	Pysht River Recovery Strategy 2	2	Pysht River Recovery Goal 1	M&R/Elwha Tribe		
Pysht River	PRA#3c	HRA	Replace Farm Road culvert on Section 9 Creek with crossing structure that allows for better fish passage and complete tidal connectivity.	Estuary and nearshore processes and habitat conditions	High	Pysht River Recovery Strategy 2	2	Pysht River Recovery Goal 1	M&R/Elwha Tribe		
Pysht River	PRA#3d	HRA	Replace Farm Road culvert on Cabin Creek with crossing structure that allows for better fish passage and complete tidal connectivity. This project is currently funded and planned for replacement during the summer of 2010.	Estuary and nearshore processes and habitat conditions	High	Pysht River Recovery Strategy 2	2	Pysht River Recovery Goal 1	M&R/Elwha Tribe		
Pysht River	PRA#4a	HRA	Replace SR-112 culverts on Indian Creek with crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4b	HRA	Replace the 2000 Road culvert on Ring Creek with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	M&R		
Pysht River	PRA#4c	HRA	Replace the 2000 Road culvert on Ring Creek with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	M&R		
Pysht River	PRA#4d	HRA	Replace the 2000 Road culvert on Shop Creek crossing structure that allows for better fish passage. Evaluate feasibility of removing fill from wetland and/or constructing new channel around fill.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	M&R/Elwha Tribe		
Pysht River	PRA#4e	HRA	Replace the 3000 Road culvert on Cabin Creek with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	M&R/Elwha Tribe		
Pysht River	PRA#4f	HRA	Investigate methods that could be used to improve habitat connectivity and minimize dewatering of the Andis Slough off-channel habitat. Continued monitoring of site is recommended.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	M&R/Elwha Tribe		
Pysht River	PRA#4g	HRA	Replace SR 112 culvert on Razz Creek T1 with crossing structure that allows for better fish passage and sediment transport.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4h	HRA	Replace SR 112 culvert on Razz Creek T2 with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4i	HRA	Replace unnamed spur road culvert on Razz Creek T4_T3 with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4j	HRA	Replace the 4500 Road culvert on the mainstem Razz Creek with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	M&R		
Pysht River	PRA#4k	RM&E and HRA	Monitor and continue to assess habitat connectivity in the 2100 Road Swamp off-channel habitat complex. Implement restoration project that may be developed from assessment.	Habitat connectivity	High	Pysht River Recovery Strategy 5	1-2	Pysht River Recovery Goal 2	Elwha Tribe		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Pysht River	PRA#4l	HRA	Develop and implement a plan to reconnect the 4500 Road Swamp to the mainstem of the Pysht River. This will require at a minimum the replacement of the SR 112 culvert with a crossing structure that provides fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4m	RM&E and HRA	Develop and implement a plan to remove the old railroad grade that runs parallel to Lee Creek. This will provide much needed habitat connectivity to associated wetlands along the right bank of Lee Creek.	Habitat connectivity	High	Pysht River Recovery Strategy 5	1-2	Pysht River Recovery Goal 2	M&R		
Pysht River	PRA#4n	HRA	Replace SR 112 culvert on Hamerquist Creek with crossing structure that allows for better fish passage, as well as improved sediment routing (Note: project ranking for this project included LWD placement and stream redirection which have already been completed).	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4o	HRA	Replace SR 112 culvert on Michelena Creek with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4p	HRA	Replace SR 112 culvert on 25 Mile Creek with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4q	HRA	Replace SR 112 culvert on 4800 Road Swamp with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4r	HRA	Replace SR 112 culvert on Burnt Creek One with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4s	HRA	Replace SR 801 culvert on Burnt Creek One with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	M&R		
Pysht River	PRA#4t	HRA	Replace SR 112 culvert on Burnt Creek Two with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4u	HRA	Replace 801 Road culvert on Burnt Creek Two with crossing structure that allows for better fish passage.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	M&R		
Pysht River	PRA#4v	HRA	Replace an impassable culvert near RM 0.3 in a tributary to Reed Creek (19.0014) with crossing structure that allows for fish passage. This potential barrier requires field verification of fish passage conditions above and below the culvert prior to restoration planning.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	Not Defined		
Pysht River	PRA#4w	HRA	Replace SR 112 culvert on tributary 19.0121A (RM 0.3) to Green Creek with crossing structure that allows for better fish passage. This potential barrier requires field verification of fish passage conditions above and below the culvert prior to restoration planning.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		
Pysht River	PRA#4x	HRA	Replace SR 112 culvert on tributary 19.0121 to Green Creek with crossing structure that allows for better fish passage. This potential barrier requires field verification of fish passage conditions above and below the culvert prior to restoration planning.	Habitat connectivity	High	Pysht River Recovery Strategy 5	2	Pysht River Recovery Goal 2	WDOT		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Pysht River	PRA#4y	RM&E and HRA	Identify water-crossing and road inventories from basin landowners and combine into single basin-wide inventory. Where water-crossing information is lacking or missing (S.F. Pysht River and tributaries, and Reed, Green, and Needham creeks), work with landowners to inventory and assess. Use assessment to identify biological, physical, and process-based metrics to use for prioritizing future habitat connectivity projects.	Habitat connectivity	High	Pysht River Recovery Strategy 5	1-2	Pysht River Recovery Goal 2	Not Defined		
Pysht River	PRA#5	RM&E	Develop and implement genetic sampling program for all salmonid species in order to better understand population structure and diversity.	Biological Processes	High	Pysht River Recovery Strategy 6	1	Pysht River Recovery Goal 3	WDFW and Tribes		
Pysht River	PRA#6	PA	For steelhead trout advocate the implementation of the Hatchery Scientific Review Group (HSRG) recommendations set for forth in the 2004 Hatchery Reform Report (HSRG 2004), which recommend the discontinuation of out-of-basin steelhead outplanting.	Biological Processes	High	Pysht River Recovery Strategy 6	1	Pysht River Recovery Goal 3	WDFW and Tribes		
Pysht River	PRA#7	PA	Evaluate the risks and benefits of Chinook salmon hatchery supplementation, also consider the habitats ability to support a viable Chinook salmon population.	Biological Processes	High	Pysht River Recovery Strategy 6, 8	3-6	Pysht River Recovery Goal 3	WDFW and Tribes		
Pysht River	PRA#8	PA	Advocate the adoption of harvest management regulations that ensure salmonid spawning escapement is sufficient to maintain, protect, and/or restore salmonid VSP parameters.	Biological Processes	High	Pysht River Recovery Strategy 7	1	Pysht River Recovery Goal 3	WDFW and Tribes		
Pysht River	PRA#9	PA	Implement and/or continue to implement population abundance monitoring.	Biological Processes	High	Pysht River Recovery Strategy 7	1	Pysht River Recovery Goal 3	WDFW and Tribes		
Pysht River	PRA#10	HRA	Reduce road related hydrologic impacts by reducing road densities and/or disconnecting road systems from the stream network.	Hydrologic Processes	High	Pysht River Recovery Strategy 9	3	Pysht River Recovery Goal 4	Various		
Pysht River	PRA#11	HRA	Implement projects that reconnect the mainstem and its tributaries to their floodplains and/or associated wetlands.	Hydrologic Processes	High	Pysht River Recovery Strategy 9	3	Pysht River Recovery Goal 4	Not Defined		
Pysht River	PRA#12	HRA	Reforestation of unutilized pastures, degraded riparian/floodplain areas, and other open areas to improve hydrologic processes.	Hydrologic Processes	High	Pysht River Recovery Strategy 9	3	Pysht River Recovery Goal 4	Various		
Pysht River	PRA#13	PA	Limit future water withdrawals from the Pysht River watershed through the implementation of the WRIA 19 Watershed Plan (WRIA 19 Planning Unit 2010).	Hydrologic Processes	High	Pysht River Recovery Strategy 10	1	Pysht River Recovery Goal 4	DOE		
Pysht River	PRA#14	RM&E and HRA	Inventory roads for maintenance (use existing RMAP and other available data), side cast removal, and drainage structure improvements. Prioritize for project actions.	Sediment Processes	High	Pysht River Recovery Strategy 11, 12	1/3	Pysht River Recovery Goal 5	Not Defined		
Pysht River	PRA#15	HRA	Reforest riparian and floodplain areas to increase stream bank integrity and reduce bank erosion.	Sediment Processes	High	Pysht River Recovery Strategy 13	3	Pysht River Recovery Goal 5	Not Defined		
Pysht River	PRA#16	RM&E	Using existing core sample data for the Pysht watershed (McHenry et al. 1994), collect core samples in the next two years to compare conditions.	Sediment Processes	High	Pysht River Recovery Strategy 11, 12	1	Pysht River Recovery Goal 5	Not Defined		
Pysht River	PRA#17	HRA	Attempt to reconnect floodplain where it is viable, through barrier correction, road relocation, or treatment of mainstem incision. The restructuring of the mainstem Pysht River with LWD, from both natural recruitment and restoration projects likely offers the best approach for treating incision problems.	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 14	1-4	Pysht River Recovery Goal 6	Various		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Pysht River	PRA#18	HRA	Work with WDOT regarding future Highway 112 planning to encourage alternative road locations that minimize encroachment of floodplain habitats.	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 14, 15	1-4	Pysht River Recovery Goal 6	WDOT		
Pysht River	PRA#19	HRA	Convert unutilized fields and non-forested riparian areas back to functional riparian forests	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 15	3	Pysht River Recovery Goal 6	Various		
Pysht River	PRA#20	PA	Advocate for effective implementation and enforcement of Forest Practice Rules and County Critical Areas Ordinances. Limit future land use encroachment along the Pysht River floodplain.	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 15	na	Pysht River Recovery Goal 6	DNR and Clallam County		
Pysht River	PRA#21	HRA	Assess possibilities for obtaining floodplain conservation easements along the Pysht River corridor. A nearly 1000 acre easement that includes significant portions of the estuary has recently been negotiated. Floodplain easements that connect to this core area are a logical strategy for conserving floodplain habitats over the long term.	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 15	1	Pysht River Recovery Goal 6	Various		
Pysht River	PRA#22	HRA	Implement riparian restoration projects where degraded riparian forest conditions exist. Riparian conditions are degraded throughout many portions of the watershed. Many of these areas could benefit from riparian restoration.	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 15	3	Pysht River Recovery Goal 6	Various		
Pysht River	PRA#23	HRA	Replace the 3400 Road bridge on the South Fork Pysht River with a bridge that allows for optimal passage of LWD, sediment, and water at the 100-year flood flow.	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 14, 15	3	Pysht River Recovery Goal 6	M&R		
Pysht River	PRA#24	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 15	1	Pysht River Recovery Goal 6	Not Defined		
Pysht River	PRA#25	RM&E and PA	Map and delineate channel migration zones within the Pysht River watershed.	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 15	1	Pysht River Recovery Goal 6	Clallam County		
Pysht River	PRA#26	PA	Advocate and support a WRIA 19 representative of the North Olympic Peninsula Lead Entity (NOPLE) to participate in the Forest and Fish policy group. Individual would provide a conduit for information between the forest practices AM program and the salmon recovery efforts of NOPLE.	Riparian and Floodplain Processes and Conditions	High	Pysht River Recovery Strategy 16	na	Pysht River Recovery Goal 6	NOPLE		
Pysht River	PRA#27	RM&E and HRA	Conduct detailed instream meso-habitat mapping inventory and assessment. Implement wood supplementation in identified wood deficient zones from the habitat mapping assessment.	Habitat and LWD Conditions	High	Pysht River Recovery Strategy 17, 18	1/4	Pysht River Recovery Goal 7	Not Defined		
Pysht River	PRA#28	HRA	Within the S.F. Pysht River implement LWD treatments identified to facilitate floodplain reconnection in channel reaches that have incised from historic land use practices and in the lower 0.5 miles which has had no restoration treatments to date. This project would involve the addition of key pieces of LWD (~200) using a heavy lift helicopter as well as the under-planting of conifers on terraces adjacent to the river.	Habitat and LWD Conditions	High	Pysht River Recovery Strategy 18	4	Pysht River Recovery Goal 7	M&R/Elwha Tribe		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Pysht River	PRA#29	HRA	Develop and implement a detailed stream restoration project in the Razz Creek sub-basin. Project scope should include an evaluation of re-routing the mainstem Razz Creek and reconnecting Razz T1 and T2. Plan should include LWD placement in new channel. Plan should include channel reconfiguration and LWD placement in the lower reach of Razz T1 to reduce cascade step elevations. Also include increasing habitat connectivity in Razz Creek T3_t1 (see Haggerty et al. 2006).	Habitat and LWD Conditions	High	Pysht River Recovery Strategy 18	1-4	Pysht River Recovery Goal 7	M&R/Elwha Tribe		
Pysht River	PRA#30	RM&E	Implement long-term surface water quality monitoring program (e.g., temperature, dissolved oxygen, pH, conductivity, turbidity, BIBI). Also include monitoring of hydrocarbons and other potential contaminants.	Water Quality Conditions	High	Pysht River Recovery Strategy 19	1	Pysht River Recovery Goal 8	Not Defined		
Pysht River	PRA#31	PA	Advocate for effective implementation and enforcement of Forest Practice Rules and County Critical Areas Ordinances.	Water Quality Conditions	High	Pysht River Recovery Strategy 20	na	Pysht River Recovery Goal 8	DNR and Clallam County		
Clallam River	CRA#1	HRA	As much as possible, remove infrastructure that encroaches on the Clallam River estuary and Clallam Bay/Sekiu nearshore, impeding its function.	Estuary and nearshore processes and habitat conditions	High	Clallam River Recovery Strategy 2	3	Clallam River Recovery Goal 1	Various		
Clallam River	CRA#2	HRA	Reconnect remaining tidal channels and restore wetlands behind the town to increase tidal prism.	Estuary and nearshore processes and habitat conditions	High	Clallam River Recovery Strategy 2	3	Clallam River Recovery Goal 1	Not Defined		
Clallam River	CRA#3	HRA	Reconnect and restore forest wetlands along left bank of Swamp Creek by removing north-south trending grade off of Frontier Road. The road grade mentioned above is within the land parcel described in Clallam River Action 5.	Estuary and nearshore processes and habitat conditions	High	Clallam River Recovery Strategy 2	2/3	Clallam River Recovery Goal 1	Not Defined		
Clallam River	CRA#4	RM&E and HRA	Develop a plan and stakeholder approval for how to monitor the river mouth and how to open the river mouth when closures threaten fish passage. This plan should include the compilation of recent records of mouth closures and openings.	Estuary and nearshore processes and habitat conditions	High	Clallam River Recovery Strategy 1,5,6	1/2/5	Clallam River Recovery Goal 1	Not Defined		
Clallam River	CRA#5	HRA	Protect the wetlands on the east side of town. Explore the possibility of acquiring the land parcel adjacent to the mainstem Clallam River to the south of Frontier Road and to the north of the school. This parcel includes 0.40 miles of mainstem Clallam River (both sides), 0.25 miles of estuarine channel in Swamp Creek and tributaries, 2 fish bearing forested wetlands, and several additional short channel segments that include off-channel rearing habitat.	Estuary and nearshore processes and habitat conditions	High	Clallam River Recovery Strategy 1, 3	1	Clallam River Recovery Goal 1	Not Defined		
Clallam River	CRA#6	HRA	Explore possibility of habitat acquisition and/or easements to protect high quality riparian and floodplain estuarine habitats. Prioritize areas where the tidal prism can be protected and/or increased.	Habitat connectivity	Medium	Clallam River Recovery Strategy 1, 3	1	Clallam River Recovery Goal 1	Not Defined		
Clallam River	CRA#7a	HRA	Replace two total barrier culverts located at RM 0.49 and RM 0.68 of Swamp Creek with fish passable stream crossings	Habitat connectivity	Medium	Clallam River Recovery Strategy 5	2	Clallam River Recovery Goal 2	WDOT, others?		
Clallam River	CRA#7b	HRA	Replace two partial barrier culverts located at RM 0.13 Sadilek Creek with fish passable stream crossings that will not get plugged with debris (see Section 5.7.2 for more details). Prior to replacing these culverts a survey of this stream system should be conducted.	Habitat connectivity	Medium	Clallam River Recovery Strategy 5	2	Clallam River Recovery Goal 2	NOSC?		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Clallam River	CRA#7c	HRA	Within Spruce Creek a 0.47 m diameter, 2.7 percent slope, slightly perched culvert (0.25 m) at RM 0.01 completely blocks juvenile fish migration into a 0.4 acre forested wetland complex located directly upstream from the culvert. This culvert is located on Charley Creek Road. A short (13m) stream reach separates the culvert from the Clallam River. No adult salmonid habitat exists upstream of the culvert. Replace culvert with fish passable stream crossing.	Habitat connectivity	Medium	Clallam River Recovery Strategy 5	2	Clallam River Recovery Goal 2	Clallam County		
Clallam River	CRA#7d	HRA	Replace total fish barrier culvert (SR 112) in Unnamed Creek WP 203 (RBT to Clallam River RM 6.24) with fish passable structure.	Habitat connectivity	Medium	Clallam River Recovery Strategy 5	2	Clallam River Recovery Goal 2	WDOT		
Clallam River	CRA#7e	RM&E and HRA	Assess fish passage through the Hamilton Creek culvert (SR 112). This culvert is not included in the WDOT inventory.	Habitat connectivity	Medium	Clallam River Recovery Strategy 5	1/2	Clallam River Recovery Goal 2	WDOT		
Clallam River	CRA#7f	RM&E	Assess benefits of replacing current fish blockages in an unnamed tributary (Trib H) to Last Creek, unnamed tributary 19.0135, and in an unnamed tributary (Trib WP 450) to the Clallam River (see Section 5.7.2). None of these streams appear to have more than 100 meters of habitat upstream of the current barrier and below the natural barriers present.	Habitat connectivity	Medium	Clallam River Recovery Strategy 5, 6	1	Clallam River Recovery Goal 2	Not Defined		
Clallam River	CRA#8	PA	Advocate implementation of the Hatchery Scientific Review Group (HSRG) recommendations set for forth in the 2004 Hatchery Reform Report (HSRG 2004) that call for the discontinuation of hatchery outplanting in the Clallam River watershed.	Biological Processes	High	Clallam River Recovery Strategy 7	1	Clallam River Recovery Goal 3	WDFW and Tribes		
Clallam River	CRA#9	PA	Advocate the adoption of harvest management regulations that ensure salmonid spawning escapement is sufficient to maintain, protect, and/or restore salmonid VSP parameters.	Biological Processes	High	Clallam River Recovery Strategy 8	1	Clallam River Recovery Goal 3	WDFW and Tribes		
Clallam River	CRA#10	PA	Implement and/or continue to implement population abundance monitoring.	Biological Processes	High	Clallam River Recovery Strategy 8	1	Clallam River Recovery Goal 3	WDFW and Tribes		
Clallam River	CRA#11	HRA	Reforestation of unutilized pastures, degraded riparian/floodplain areas, and other open areas to improve hydrologic processes	Hydrologic Processes	High	Clallam River Recovery Strategy 9	3	Clallam River Recovery Goal 4	Various		
Clallam River	CRA#12	HRA	Reduce road related hydrologic impacts by reducing road densities and/or disconnecting road systems from the stream network.	Hydrologic Processes	High	Clallam River Recovery Strategy 9	3	Clallam River Recovery Goal 4	Various		
Clallam River	CRA#13	PA	Limit future water withdrawals from the Salt Creek watershed through the implementation of the WRIA 19 Watershed Plan (WRIA 19 Planning Unit 2010).	Hydrologic Processes	High	Clallam River Recovery Strategy 10	1	Clallam River Recovery Goal 4	DOE		
Clallam River	CRA#14	HRA	Inventory roads for maintenance (use existing RMAP and other available data), side cast removal, and drainage structure improvements. Prioritize for project actions.	Sediment Processes	Medium	Clallam River Recovery Strategy 11, 12	1/3	Clallam River Recovery Goal 5	Various		
Clallam River	CRA#15	HRA	Reforest riparian and floodplain areas to increase stream bank integrity and reduce bank erosion	Sediment Processes	Medium	Clallam River Recovery Strategy 13	3	Clallam River Recovery Goal 5	Various		
Clallam River	CRA#16	RM&E	Using existing sediment core sample data for the Clallam watershed (McHenry et al. 1994), collect sediment core samples in the next two years to compare conditions.	Sediment Processes	Medium	Clallam River Recovery Strategy 11, 12	1	Clallam River Recovery Goal 5	Not Defined		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Clallam River	CRA#17	HRA	Assess possibilities for acquisition or conservation easements along the lower mainstem (see Haggerty 2008 Draft for sites). Priority should be given to the most intact habitats in order to protect areas that are currently properly functioning.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 15	1	Clallam River Recovery Goal 6	Not Defined		
Clallam River	CRA#18	HRA	Work with WDOT and Clallam County regarding future Highway 112 planning to encourage alternative road locations that minimize encroachment on the floodplain and floodplain habitats. Consider locations where road relocation out of the active floodplain might be feasible and help address floodplain encroachment issues.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 14, 15	1/3	Clallam River Recovery Goal 6	WDOT and Clallam County		
Clallam River	CRA#19	HRA	Conversion of fields and non-forested riparian areas (mostly between RM 1.0 and 6) back to fully functional riparian forests.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 15	3	Clallam River Recovery Goal 6	Various		
Clallam River	CRA#20	HRA	Attempt to reconnect floodplain where it is viable, through barrier correction, road relocation, or treatment of mainstem incision. The restructuring of the mainstem Clallam River with LWD, from both natural recruitment and restoration projects likely offers the best approach for treating incision problems.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 14	3/4	Clallam River Recovery Goal 6	Not Defined		
Clallam River	CRA#21	HRA	Work with willing landowners and other restoration partners to remove knotweed and other noxious weeds followed by riparian replanting.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 15	3	Clallam River Recovery Goal 6	Clallam County Noxious Weed Workgroup		
Clallam River	CRA#22	PA	Advocate for effective implementation and enforcement of Forest Practice Rules and County Critical Areas Ordinances. Limit future land use encroachment along the Clallam River floodplain.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 15	na	Clallam River Recovery Goal 6	Clallam County and DNR		
Clallam River	CRA#23	HRA	Replace undersized bridges with correctly sized bridges.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 14, 15	3	Clallam River Recovery Goal 6	WDOT		
Clallam River	CRA#24	HRA	Reduce roads, road prisms, and impervious surfaces cover within the floodplain.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 14, 15	3	Clallam River Recovery Goal 6	Various		
Clallam River	CRA#25	HRA	Relocate roads which negatively impact fish populations and habitat.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 14, 15	3	Clallam River Recovery Goal 6	Various		
Clallam River	CRA#26	HRA	Implement projects that will enhance riparian conditions in tributaries where current conditions are poor (e.g. Last Creek segment 1). For other potential projects also see the riparian inventory in Haggerty (2008 Draft).	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 15	3	Clallam River Recovery Goal 6	Various		
Clallam River	CRA#27	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 15	1	Clallam River Recovery Goal 6	Various		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Clallam River	CRA#28	RM&E and PA	Map and delineate channel migration zones within the Clallam River watershed.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 15	1	Clallam River Recovery Goal 6	Clallam County		
Clallam River	CRA#29	PA	Advocate and support a WRIA 19 representative of the North Olympic Peninsula Lead Entity (NOPLE) to participate in the Forest and Fish policy group. Individual would provide a conduit for information between the forest practices AM program and the salmon recovery efforts of NOPLE.	Riparian and Floodplain Processes and Conditions	High	Clallam River Recovery Strategy 16	na	Clallam River Recovery Goal 6	NOPLE		
Clallam River	CRA#30	HRA and RM&E	Mainstem Clallam River- Most of segments 1 through 4 are low or deficient in LWD. LWD projects in any of these stream segments could significantly improve fish habitat conditions. Caution will be needed due to extensive private property holdings and infrastructure located close to the rivers edge. Meso-habitat data are need in stream segments 1 through 4.	Habitat and LWD Conditions	Medium	Clallam River Recovery Strategy 17, 18	1/4	Clallam River Recovery Goal 7	Not Defined		
Clallam River	CRA#31	HRA	Mainstem Clallam River- Upper segment 5 and segment 6 could benefit from LWD introductions that help improve channel complexity, stability, and floodplain connectivity. Historically this stream reach contained abundant LWD, current LWD levels are low in this reach.	Habitat and LWD Conditions	Medium	Clallam River Recovery Strategy 18	4	Clallam River Recovery Goal 7	Not Defined		
Clallam River	CRA#32	HRA	Upper Mainstem Clallam River- Segments 9 and 12 have the most potential to benefit from LWD introductions (segments 7, 8, 10, 11, and 14 are confined, high energy environments where LWD introduction may not be feasible). Projects in these stream reaches should attempt to add habitat complexity and restore floodplain connectivity where possible.	Habitat and LWD Conditions	Medium	Clallam River Recovery Strategy 18	4	Clallam River Recovery Goal 7	Not Defined		
Clallam River	CRA#33	HRA	LWD wood supplementation in the Charley Creek subbasin. Areas to target include the mainstem Charley Creek, upper segment 2 and segment 3, unnamed tributary 19.0135 segment 1, Err Creek segment 1, unnamed tributary 19.0136 segment 1.	Habitat and LWD Conditions	Medium	Clallam River Recovery Strategy 18	4	Clallam River Recovery Goal 7	Not Defined		
Clallam River	CRA#34	HRA	LWD wood supplementation in Simmons Creek segment 1.	Habitat and LWD Conditions	Medium	Clallam River Recovery Strategy 18	4	Clallam River Recovery Goal 7	Not Defined		
Clallam River	CRA#35	HRA	LWD wood supplementation in Blowder Creek (upper segment 1 and portions of segment 2).	Habitat and LWD Conditions	Medium	Clallam River Recovery Strategy 18	4	Clallam River Recovery Goal 7	Not Defined		
Clallam River	CRA#36	RM&E	Implement long-term surface water quality monitoring program (e.g., temperature, dissolved oxygen, pH, conductivity, turbidity, BIBI). Also include monitoring of hydrocarbons and other potential contaminants.	Water Quality Conditions	Medium	Clallam River Recovery Strategy 19	1	Clallam River Recovery Goal 8	Not Defined		
Clallam River	CRA#37	PA	Advocate for effective implementation and enforcement of Forest Practice Rules and County Critical Areas Ordinances.	Water Quality Conditions	Medium	Clallam River Recovery Strategy 20	na	Clallam River Recovery Goal 8	DNR and Clallam County		
Hoko River	HRA#1	RM&E	Assess the effectiveness of existing regulatory mechanisms in protecting natural resources. Identify actions taken under specific regulatory controls that can be assessed through effectiveness monitoring.	Estuary and Nearshore Processes and Habitat Conditions	High	Hoko River Recovery Strategy 1	1	Hoko River Recovery Goal 1	Not Defined		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Hoko River	HRA#2	HRA	Identify willing sellers of parcels with natural shoreline for either permanent conservation or acquisition for protection. Within conservation easements or areas acquired for protection, completely remove shoreline armoring and return to original shoreline geometry.	Estuary and Nearshore Processes and Habitat Conditions	High	Hoko River Recovery Strategy 2, 3	1	Hoko River Recovery Goal 1	Not Defined		
Hoko River	HRA#3	RM&E	Water quality and fish use monitoring should be conducted in the Hoko River estuary to determine potential impacts to aquatic resources. Future monitoring should incorporate recent water quality data collected by Stream Keepers, local residents, and volunteers. Also include cross-section monitoring through and across the meander channel.	Estuary and Nearshore Processes and Habitat Conditions	High	?	1	Hoko River Recovery Goal 1	Not Defined		Does not have a strategy relationship
Hoko River	HRA#4	HRA	Work with landowners to replace existing “hard-point” armoring with alternative soft shore protection designs (ex. beach nourishment, grade control w/ LWD, wood revetment, and biotechnical slope support).	Estuary and Nearshore Processes and Habitat Conditions	High	Hoko River Recovery Strategy 3	3	Hoko River Recovery Goal 1	Various		
Hoko River	HRA#5	RM&E	Assess the feasibility of moving 0.24mi of Hwy 112, that is currently, armored to a higher elevation, landward location.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 3	1	Hoko River Recovery Goal 1	WDOT		
Hoko River	HRA#6	HRA	Introduce small-scale wood complex at outlet of historic meander to improve tidal exchange and maintain surface water connection.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 4	4	Hoko River Recovery Goal 1	Not Defined		
Hoko River	HRA#7	HRA	Introduce large-scale, channel spanning wood complexes below historic meander inlet to improve flood flow connection to meander.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 4	4	Hoko River Recovery Goal 1	Not Defined		
Hoko River	HRA#8a	RM&E	Identify water-crossing and road inventories from basin landowners and combine into single basin-wide inventory. Where water-crossing information is lacking or missing, work with landowners to inventory and assess.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	1	Hoko River Recovery Goal 2	Not Defined		
Hoko River	HRA#8b	RM&E and HRA	Using a basin-wide approach to identify biological, physical, and process-based metrics to use for prioritizing future habitat connectivity projects.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	1/2	Hoko River Recovery Goal 2	Not Defined		
Hoko River	HRA#9a	HRA	Remove undersized, perched culvert that acts as a partial barrier in Johnson Creek at the confluence with the Hoko River. Currently adult coho and steelhead appear to easily pass upstream through the culvert. The road fill is extremely deep and the culvert is partially collapsed and poses a significant risk of catastrophic failure.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	2	Hoko River Recovery Goal 2	Private Landowner?		
Hoko River	HRA#9b	HRA	Repair perched culvert (Hoko Ozette Road) on an unnamed tributary to Johnson Creek (trib 19.0176) blocks access to 0.8 miles of low gradient (1-4%) habitat and 0.35 miles of 4-8% gradient habitat.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	2	Hoko River Recovery Goal 2	Clallam County		
Hoko River	HRA#9c	HRA	Repair perched culvert (spur to 7000 Road) on an unnamed tributary to Johnson Creek (trib 19.0178). This culvert blocks access to 0.68 miles of low gradient (2-4%) stream habitat.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	2	Hoko River Recovery Goal 2	Private Landowner?		
Hoko River	HRA#9d	HRA	Repair perched culvert on an unnamed tributary (19.0189; RM 0.18) to the Hoko River. This culvert blocks access to 0.41 miles of 3-6% gradient spawning habitat.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	2	Hoko River Recovery Goal 2	Private Landowner?		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Hoko River	HRA#9e	HRA	Two perched culverts on the 9000 Road block access to a 4 acre fish bearing wetland complex. No spawning habitat has been identified upstream of the barrier culverts. Replace with fish passable structure.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	2	Hoko River Recovery Goal 2	Private Landowner?		
Hoko River	HRA#9f	HRA	Replace Hoko-Ozette Road partial barrier culvert on Wrights Creek with crossing structure that allows for better fish passage. Ensure structure is adequately sized to pass flood flows, debris, and sediment.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	2	Hoko River Recovery Goal 2	Clallam County		
Hoko River	HRA#9g	HRA	Repair partial barrier associated with SR 112 near MP 12.3. This culvert blocks access to a 1.6 acre wetland complex and 0.15 miles of 2-4% gradient spawning and rearing habitat. An additional 0.3 miles of 4-8% gradient habitat is also upstream of the barrier culvert.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	2	Hoko River Recovery Goal 2	WDOT		
Hoko River	HRA#9h	HRA	Repair partial barrier culvert on Hoko Ozette Road blocks 0.25 miles of 2-8% gradient spawning and rearing habitat in Hoko Gage Creek (near Hoko RM 5.0).	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	2	Hoko River Recovery Goal 2	Clallam County		
Hoko River	HRA#9i	HRA	An unmapped right bank tributary to unnamed tributary 19.0199 (RM 0.45) contains a barrier culvert at RM 0.06 that blocks access to about 0.1 miles of spawning habitat. Replace with fish passable culvert or bridge.	Habitat connectivity	Medium	Hoko River Recovery Strategy 6	2	Hoko River Recovery Goal 2	Rayonier		
Hoko River	HRA#10	RM&E	Develop and implement genetic sampling program for all salmonid species in order to better understand population structure and diversity.	Biological Processes	High	Hoko River Recovery Strategy 7	1	Hoko River Recovery Goal 3	WDFW and Tribes		
Hoko River	HRA#11	PA	Advocate the adoption of harvest management regulations that ensure salmonid spawning escapement is sufficient to maintain, protect, and/or restore salmonid VSP parameters.	Biological Processes	High	Hoko River Recovery Strategy 8	1	Hoko River Recovery Goal 3	WDFW and Tribes		
Hoko River	HRA#12	PA	Implement and/or continue to implement population abundance monitoring.	Biological Processes	High	Hoko River Recovery Strategy 8	1	Hoko River Recovery Goal 3	WDFW and Tribes		
Hoko River	HRA#13	PA and RM&E	Specify locations to introduce salmon carcass analogs to the Hoko River drainage to improve N, P, and C cycling in areas deficient of natural salmon spawners.	Biological Processes	High	Hoko River Recovery Strategy 9	3-6	Hoko River Recovery Goal 3	WDFW and Tribes		
Hoko River	HRA#14	RM&E	Collaborate with Washington Department of Fish and Wildlife, private landowners, and tribes to provide access and develop field methodology for evaluating flood flow passage through existing instream structures.	Hydrologic Processes	High	Hoko River Recovery Strategy 10	1	Hoko River Recovery Goal 4	Various		
Hoko River	HRA#15	RM&E	Obtain funding for necessary equipment to collect high flow data.	Hydrologic Processes	High	Hoko River Recovery Strategy 10, 11	1	Hoko River Recovery Goal 4	USGS		
Hoko River	HRA#16	RM&E, PA	Obtain necessary information (RMAPs, RMAP Annual Reports, current and historical road inventory) from Washington Department of Natural Resources (WDNR).	Hydrologic Processes	High	Hoko River Recovery Strategy 12	1	Hoko River Recovery Goal 4	Various		
Hoko River	HRA#17	RM&E	Review published literature on impacts to natural basin hydrology due to changes in road density (including work completed in WDNR Hoko Watershed Analysis).	Hydrologic Processes	High	Hoko River Recovery Strategy 12	1	Hoko River Recovery Goal 4	Not Defined		
Hoko River	HRA#18	HRA	In coordination with WDNR, WDFW, and WDOE, and landowners, develop road density goals for the Hoko River drainage based on “best available science” that will achieve Hoko River Recovery Goal 4.	Hydrologic Processes	High	Hoko River Recovery Strategy 12	3	Hoko River Recovery Goal 4	Various		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Hoko River	HRA#19	PA	Limit future water withdrawals from the Hoko River watershed through the implementation of the WRIA 19 Watershed Plan (WRIA 19 Planning Unit 2010).	Hydrologic Processes	High	Hoko River Recovery Strategy 10	1	Hoko River Recovery Goal 4	DOE		
Hoko River	HRA#20	RM&E	Evaluate rate of road/culvert related failure (mass wasting events) over time using aerial photo interpretation. Compare existing rates of mass wasting events to those historically.	Sediment Processes	Medium	Hoko River Recovery Strategy 13	1	Hoko River Recovery Goal 5	Not Defined		
Hoko River	HRA#21	RM&E and HRA	Using existing RMAP information, quantify remaining orphaned and abandoned roads to determine potential for resource damage and likelihood of failure.	Sediment Processes	Medium	Hoko River Recovery Strategy 13	1/3	Hoko River Recovery Goal 5	Not Defined		
Hoko River	HRA#22	RM&E	Install continuous, long-term turbidity monitoring station coupled with storm-related suspended sediment collection. Use data for long-term trend analysis and measures of state water quality standards.	Sediment Processes	Medium	Hoko River Recovery Strategy 14	1	Hoko River Recovery Goal 5	Not Defined		
Hoko River	HRA#23	RM&E	Using existing sediment core sample data for the Clallam watershed (McHenry et al. 1994), collect sediment core samples in the next two years to compare conditions.	Sediment Processes	Medium	Hoko River Recovery Strategy 15	1	Hoko River Recovery Goal 5	Not Defined		
Hoko River	HRA#24	RM&E	Review published literature on recommended levels of fine sediment volume within the hyporheic zone for a range of STE, and establish benchmarks for the next 10-100 years.	Sediment Processes	Medium	Hoko River Recovery Strategy 15	1	Hoko River Recovery Goal 5	Not Defined		
Hoko River	HRA#25	PA	Advocate and support a WRIA 19 representative of the North Olympic Peninsula Lead Entity (NOPLE) to participate in the Forest and Fish policy group. Individual would provide a conduit for information between the forest practices AM program and the salmon recovery efforts of NOPLE.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 16	na	Hoko River Recovery Goal 6	NOPLE		
Hoko River	HRA#26	PA and HRA	Limit future land use encroachment on the Hoko River floodplain.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 16, 17	1	Hoko River Recovery Goal 6	Various		
Hoko River	HRA#27	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress)to further refine prioritization of floodplain and riparian habitat. Assess possibilities for obtaining floodplain conservation easements along the Hoko River corridor.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 17	1	Hoko River Recovery Goal 6	Various		
Hoko River	HRA#28	HRA	Conversion of fields and non-forested riparian areas (mostly between RM 0.75 and 4.0) back to fully functional riparian forests.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 17	3	Hoko River Recovery Goal 6	Various		
Hoko River	HRA#29	RM&E and HRA	Evaluate and prioritize the need to remove or abandon road segments that occupy floodplain habitat throughout the Hoko River drainage.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 18	1/3	Hoko River Recovery Goal 6	Various		
Hoko River	HRA#30	PA and HRA	Work with WDOT and Clallam County regarding future Highway 112 and Hoko-Ozette Road planning to encourage alternative road locations that minimize encroachment on the floodplain and floodplain habitats. Considered locations where road relocation out of the active floodplain might be feasible and help address floodplain encroachment issues.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 18	1/3	Hoko River Recovery Goal 6	WDOT and Clallam County		
Hoko River	HRA#31	RM&E and PA	Map and delineate channel migration zones within the Hoko River watershed.	Riparian and Floodplain Processes and Conditions	High	Hoko River Recovery Strategy 16-18	1	Hoko River Recovery Goal 6	Clallam County		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Hoko River	HRA#32	RM&E and HRA	Conduct detailed instream meso-habitat mapping inventory and assessment. Implement wood supplementation in identified wood deficient zones from the habitat mapping assessment.	Habitat and LWD Conditions	High	Hoko River Recovery Strategy 19, 20	1/4	Hoko River Recovery Goal 7	Not Defined		
Hoko River	HRA#33	HRA	Mainstem Hoko River - Emerson Flats LWD restoration. The first phase of the project will restore spawning and rearing habitat from RM 5.0 to 6. Adding LWD to this reach will create habitat complexity, providing sheltering areas for spawning adults and rearing fingerlings. It will also reduce scour and assist in gravel bed creation and maintenance. This project will benefit Chinook as well as coho, chum, steelhead and cutthroat trout.	Habitat and LWD Conditions	High	Hoko River Recovery Strategy 20	4	Hoko River Recovery Goal 7	Not Defined		
Hoko River	HRA#34	HRA	Mainstem Hoko River – LWD Restoration. Almost the entire low gradient reaches of the Hoko River have insufficient LWD loading as a result of historic land uses. These reaches should be delineated and prioritized for future projects.	Habitat and LWD Conditions	High	Hoko River Recovery Strategy 19	4	Hoko River Recovery Goal 7	Not Defined		
Hoko River	HRA#35	HRA	Little Hoko River LWD restoration – The Little Hoko River received extensive habitat restoration between 1994 and 1998. Monitoring has shown that the project has been partially successful in restoring channel and riparian habitat features. Additional LWD treatments have been identified to facilitate floodplain reconnection particularly in channel reaches that have heavily incised. This project would involve the addition of key pieces (~200) using a heavy lift helicopter.	Habitat and LWD Conditions	High	Hoko River Recovery Strategy 20	4	Hoko River Recovery Goal 7	Not Defined		
Hoko River	HRA#36	HRA	Herman Creek LWD restoration – This project will restore formerly productive spawning and rearing habitat to Herman Creek. Adding LWD to this tributary will create habitat complexity, providing sheltering areas for spawning adults and rearing fingerlings. It will also reduce scour and assist in gravel bed creation and maintenance.	Habitat and LWD Conditions	High	Hoko River Recovery Strategy 20	4	Hoko River Recovery Goal 7	Not Defined		
Hoko River	HRA#37	HRA	Bear/Cub Creek LWD Restoration - This project will restore formerly productive spawning and rearing habitat to two upper Hoko tributaries. Adding LWD to these tributaries will create habitat complexity, providing sheltering areas for spawning adults and rearing fingerlings. It will also reduce scour and assist in gravel bed creation and maintenance	Habitat and LWD Conditions	High	Hoko River Recovery Strategy 20	4	Hoko River Recovery Goal 7	Not Defined		
Hoko River	HRA#38	RM&E	Implement long-term surface water quality monitoring program (e.g., temperature, dissolved oxygen, pH, conductivity, turbidity, BIBI). Also include monitoring of hydrocarbons and other potential contaminants.	Water Quality Conditions	High	Hoko River Recovery Strategy 21	1	Hoko River Recovery Goal 8	Not Defined		
Hoko River	HRA#39	PA	Maintain and expand long-term surface water temperature monitoring program.	Water Quality Conditions	High	Hoko River Recovery Strategy 21	1	Hoko River Recovery Goal 8	Tribes		
Sekiu River	SRA#1	RM&E	Assess the effectiveness of existing regulatory mechanisms in protecting natural resources. Identify actions taken under specific regulatory controls that can be assessed through effectiveness monitoring.	Estuary and Nearshore Processes and Habitat Conditions	Medium	Sekiu River Recovery Strategy 1	1	Sekiu River Recovery Goal 1	Not Defined		
Sekiu River	SRA#2	HRA	Identify willing sellers of parcels with natural shoreline for either permanent conservation or acquisition for protection.	Estuary and Nearshore Processes and Habitat Conditions	Medium	Sekiu River Recovery Strategy 2	1	Sekiu River Recovery Goal 1	Various		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Sekiu River	SRA#3	HRA	Within conservation easements or areas acquired for protection, completely remove shoreline armoring and return to original shoreline geometry.	Estuary and Nearshore Processes and Habitat Conditions	Medium	Sekiu River Recovery Strategy 3	3	Sekiu River Recovery Goal 1	Not Defined		
Sekiu River	SRA#4	HRA	Work with landowners to replace existing “hard-point” armoring with alternative soft shore protection designs (ex. beach nourishment, grade control w/ LWD, wood revetment, and biotechnical slope support).	Estuary and Nearshore Processes and Habitat Conditions	Medium	Sekiu River Recovery Strategy 3	4/5	Sekiu River Recovery Goal 1	Not Defined		
Sekiu River	SRA#5a	RM&E	Identify water-crossing and road inventories from basin landowners and combine into single basin-wide inventory. Where water-crossing information is lacking or missing, work with landowners to inventory and assess.	Habitat connectivity	Medium	Sekiu River Recovery Strategy 5	1	Sekiu River Recovery Goal 2	Not Defined		
Sekiu River	SRA#5b	RM&E and HRA	Using a basin-wide approach to identify biological, physical, and process-based metrics to use for prioritizing future habitat connectivity projects.	Habitat connectivity	Medium	Sekiu River Recovery Strategy 5	1/2	Sekiu River Recovery Goal 2	Not Defined		
Sekiu River	SRA#6a	HRA	Replace barrier culvert in unnamed tributary to No Name Creek (near RM 0.6) with structure that allows for better fish passage.	Habitat connectivity	Medium	Sekiu River Recovery Strategy 5	2	Sekiu River Recovery Goal 2	Not Defined		
Sekiu River	SRA#6b	HRA	When the CZ 1000 Road was constructed it cut off a major meander of the Sekiu River leaving a large ponded channel segment. This habitat is now partially blocked by an improperly placed culvert. Restoring fish access to this pond would substantially increase the off-channel habitat available to juvenile salmonids in this subbasin.	Habitat connectivity	Medium	Sekiu River Recovery Strategy 5	2	Sekiu River Recovery Goal 2	Not Defined		
Sekiu River	SRA#6c	HRA	A barrier culvert on the CZ-1000 Road blocks approximately 0.25 miles of spawning and rearing habitat in an unnamed right bank tributary to the Sekiu River (section 13). Replace culvert with crossing structure that allows for better fish passage.	Habitat connectivity	Medium	Sekiu River Recovery Strategy 5	2	Sekiu River Recovery Goal 2	Not Defined		
Sekiu River	SRA#6d	HRA	Near RM 0.18 in a left bank tributary to 19.0218 (RM 0.44), a culvert blocks an unquantified amount of coho, steelhead and cutthroat habitat. Upstream habitat quantification needs to occur prior to restoration planning. Replace (or remove) culvert with structure that allows for better fish passage.	Habitat connectivity	Medium	Sekiu River Recovery Strategy 5	2	Sekiu River Recovery Goal 2	Not Defined		
Sekiu River	SRA#7	RM&E	Develop and implement genetic sampling program for all salmonid species in order to better understand population structure and diversity.	Biological Processes	High	Sekiu River Recovery Strategy 6	1	Sekiu River Recovery Goal 3	WDFW and Tribes		
Sekiu River	SRA#8	PA	Evaluate the necessity of hatchery supplementation once higher tiered recovery actions have been completed in the watershed (through future survey/smolt trapping results).	Biological Processes	High	Sekiu River Recovery Strategy 7	3-6	Sekiu River Recovery Goal 3	WDFW and Tribes		
Sekiu River	SRA#9	PA	Advocate the adoption of harvest management regulations that ensure salmonid spawning escapement is sufficient to maintain, protect, and/or restore salmonid VSP parameters.	Biological Processes	High	Sekiu River Recovery Strategy 8	1	Sekiu River Recovery Goal 3	WDFW and Tribes		
Sekiu River	SRA#10	RM&E and PA	Implement and/or continue to implement population abundance monitoring.	Biological Processes	High	Sekiu River Recovery Strategy 8	1	Sekiu River Recovery Goal 3	WDFW and Tribes		
Sekiu River	SRA#11	PA and RM&E	Introduce salmon carcass analogs to the Sekiu river drainage to improve N, P, and C cycling in areas deficient of natural salmon spawners.	Biological Processes	High	Sekiu River Recovery Strategy 9	3-6	Sekiu River Recovery Goal 3	WDFW and Tribes		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Sekiu River	SRA#12	RM&E	Collaborate with Washington Department of Fish and Wildlife, private landowners, and tribes to provide access and develop field methodology for evaluating flood flow passage through existing instream structures.	Hydrologic Processes	Unknown	Sekiu River Recovery Strategy 10	1	Sekiu River Recovery Goal 4	Various		
Sekiu River	SRA#13	RM&E	Seek additional funding for maintenance and calibration of WDOE Sekiu River gaging station. Obtain funding for necessary equipment for high flow data collection.	Hydrologic Processes	Unknown	Sekiu River Recovery Strategy 11	1	Sekiu River Recovery Goal 4	DOE		
Sekiu River	SRA#14	RM&E, PA	Obtain necessary information (RMAPs, RMAP Annual Reports, current and historical road inventory) from Washington Department of Natural Resources (WDNR).	Hydrologic Processes	Unknown	Sekiu River Recovery Strategy 12	1	Sekiu River Recovery Goal 4	Various		
Sekiu River	SRA#15	RM&E	Review published literature on impacts to natural basin hydrology due to changes in road density (including work completed in WDNR Sekiu Watershed Analysis).	Hydrologic Processes	Unknown	Sekiu River Recovery Strategy 12	1	Sekiu River Recovery Goal 4	Not Defined		
Sekiu River	SRA#16	HRA	In coordination with WDNR, WDFW, and WDOE, and landowners, develop road density goals for the Sekiu River drainage based on “best available science” that will achieve Sekiu River Recovery Goal 4.	Hydrologic Processes	Unknown	Sekiu River Recovery Strategy 12	3	Sekiu River Recovery Goal 4	Various		
Sekiu River	SRA#17	PA	Limit future water withdrawals from the Sekiu River watershed through the implementation of the WRIA 19 Watershed Plan (WRIA 19 Planning Unit 2010).	Hydrologic Processes	Unknown	Sekiu River Recovery Strategy 10	1	Sekiu River Recovery Goal 4	DOE		
Sekiu River	SRA#18	RM&E	Evaluate rate of road/culvert related failure (mass wasting events) over time using aerial photo history. Compare existing rates of mass wasting events to those historically.	Sediment Processes	Medium	Sekiu River Recovery Strategy 13	1	Sekiu River Recovery Goal 5	Not Defined		
Sekiu River	SRA#19	RM&E and HRA	Using existing RMAP information, quantify remaining orphan and abandoned roads to determine potential for resource damage and likelihood of failure.	Sediment Processes	Medium	Sekiu River Recovery Strategy 13	1/3	Sekiu River Recovery Goal 5	Not Defined		
Sekiu River	SRA#20	RM&E	Install continuous, long-term turbidity monitoring station coupled with storm-related suspended sediment collection. Use data for long-term trend analysis and measures of state water quality standards.	Sediment Processes	Medium	Sekiu River Recovery Strategy 14	1	Sekiu River Recovery Goal 5	Not Defined		
Sekiu River	SRA#21	RM&E	Using existing sediment core sample data for the Clallam watershed (McHenry et al. 1994), collect sediment core samples in the next two years to compare conditions.	Sediment Processes	Medium	Sekiu River Recovery Strategy 15	1	Sekiu River Recovery Goal 5	Not Defined		
Sekiu River	SRA#22	RM&E	Review published literature on recommended levels of fine sediment volume within the hyporheic zone for a range of STE, and establish benchmarks for the next 10-100 years.	Sediment Processes	Medium	Sekiu River Recovery Strategy 15	1	Sekiu River Recovery Goal 5	Not Defined		
Sekiu River	SRA#23	HRA	Advocate and support a WRIA 19 representative of the North Olympic Peninsula Lead Entity (NOPLE) to participate in the Forest and Fish policy group. Individual would provide a conduit for information between the forest practices AM program and the salmon recovery efforts of NOPLE.	Riparian and Floodplain Processes and Conditions	High	Sekiu River Recovery Strategy 16	na	Sekiu River Recovery Goal 6	NOPLE		
Sekiu River	SRA#24	RM&E and HRA	Evaluate and prioritize the need to remove or abandon the following road segments: (1) 3.19 miles within 250ft of Sekiu mainstem, (2) 2.35 miles between 250-500ft of Sekiu mainstem, (3) 2.62 miles between 500-750ft of Sekiu mainstem, and (4) 2.98 miles between 750-1000ft of Sekiu mainstem.	Riparian and Floodplain Processes and Conditions	High	Sekiu River Recovery Strategy 18	1/3	Sekiu River Recovery Goal 6	Not Defined		
Sekiu River	SRA#25	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Riparian and Floodplain Processes and Conditions	High	Sekiu River Recovery Strategy 17	1	Sekiu River Recovery Goal 6	Various		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
Sekiu River	SRA#26	RM&E and PA	Map and delineate channel migration zones within the Sekiu River watershed.	Riparian and Floodplain Processes and Conditions	High	Sekiu River Recovery Strategy 16, 17	1	Sekiu River Recovery Goal 6	Clallam County		
Sekiu River	SRA#27	RM&E and HRA	Conduct detailed instream meso-habitat mapping inventory and assessment. Implement wood supplementation in identified wood deficient zones from the habitat mapping assessment.	Riparian and Floodplain Processes and Conditions	High	Sekiu River Recovery Strategy 20	1/3/4	Sekiu River Recovery Goal 7	Not Defined		
Sekiu River	SRA#28	RM&E	Implement long-term surface water quality monitoring program (e.g., temperature, dissolved oxygen, pH, conductivity, turbidity, BIBI).	Water Quality Conditions	Unknown	Sekiu River Recovery Strategy 21	1	Sekiu River Recovery Goal 8	Not Defined		
Sekiu River	SRA#29	PA	Maintain and expand long-term surface water temperature monitoring program.	Water Quality Conditions	Unknown	Sekiu River Recovery Strategy 21	1	Sekiu River Recovery Goal 8	Tribes		
WSI	WSIRA#1	RM&E	Develop plan to protect eelgrass and kelp beds where they occur. Plan should focus on sediment reduction where needed.	Estuary and Nearshore Processes and Habitat Conditions	Low	WSI Recovery Strategy 1	1	WSI Recovery Goal 1	Not Defined		
WSI	WSIRA#2	RM&E and HRA	Evaluate impacts bulkheads constructed near Whiskey Creek, reduce or eliminate potential negative impacts.	Estuary and Nearshore Processes and Habitat Conditions	Low	WSI Recovery Strategy 2	1/3/4	WSI Recovery Goal 1	Not Defined		
WSI	WSIRA#3	HRA	Restore the mouths of Jim and Joe Creeks by reducing sediment transport to estuary. Remove or reduce impacts of breakwaters near the mouth of Jim Creek. Discontinue dredging in this area.	Estuary and Nearshore Processes and Habitat Conditions	Low	WSI Recovery Strategy 1, 2	1/3	WSI Recovery Goal 1	Not Defined		
WSI	WSIRA#4	HRA	Develop and implement plan to restore habitat conditions in the Sail River estuary.	Estuary and Nearshore Processes and Habitat Conditions	Low	WSI Recovery Strategy 1, 2	1/3/4	WSI Recovery Goal 1	Makah Tribe		
WSI	WSIRA#5	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Estuary and Nearshore Processes and Habitat Conditions	Low	WSI Recovery Strategy 3	1	WSI Recovery Goal 1	Not Defined		
WSI	WSIRA#6a	HRA	Within the Colville Creek subbasin a perched culvert (SR112 MP 56.5) in tributary 19.0003 potentially blocks 2.0 miles of coho, steelhead, and cutthroat habitat. Upon confirmation of barrier and upstream habitat, replace culvert with stream crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	WDOT		
WSI	WSIRA#6b	HRA	Within the Colville Creek subbasin a culvert (Oxenford Road) in tributary 19.0001a potentially blocks 0.7 miles of coho, steelhead, and cutthroat habitat. Upon confirmation of barrier and upstream habitat, replace culvert with stream crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	Clallam County		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
WSI	WSIRA#6c	HRA	Whiskey Creek (RM 1.5), a 40% barrier at box culvert SR 112 MP 49.5 blocks 1.2 miles of coho steelhead, and cutthroat habitat. This documented blockage requires field verification of fish passage conditions above and below the culvert prior to restoration planning. Upon confirmation of barrier and upstream habitat, replace culvert with stream crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	WDOT		
WSI	WSIRA#6d	HRA	At the mouth of an unnamed stream located between Deep Creek and West Twin River, a recently installed corrugated metal pipe associated with SR 112 near MP 34.8, blocks about 0.5 miles of coho, steelhead, and cutthroat habitat. Upon confirmation of barrier and upstream habitat, replace culvert with stream crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	WDOT		
WSI	WSIRA#6e	HRA	In Jim Creek at RM 0.1. a partial barrier culvert on a private road blocks several miles of habitat in Jim Creek (source: DOT culvert database). Replace with structure that allows for better fish passage.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	Private Landowner?		
WSI	WSIRA#6f	HRA	In Joe Creek at RM 0.5, a 60% passable box culvert on SR 112 MP 32.8 blocks about one mile of coho, steelhead, and cutthroat habitat, based upon database documentation. Upon confirmation of barrier and upstream habitat, replace culvert with stream crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	WDOT		
WSI	WSIRA#6g	HRA	A barrier at the Pillar Point access road culvert blocks about 0.8 miles of coho, steelhead, and cutthroat habitat at the mouth of Butler Creek. Upon confirmation of barrier and upstream habitat, replace culvert with stream crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	DNR		
WSI	WSIRA#6h	HRA	Double 30" culverts (SR 112 MP 29.7)form an 80% barrier partially blocking about 0.5 miles of coho, steelhead, and cutthroat habitat in Butler Creek (19.0112 RM 0.3). Upon confirmation of barrier and upstream habitat, replace culvert with stream crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	WDOT		
WSI	WSIRA#6i	HRA	In a left bank tributary to the Sail River (near RM 0.1), a culvert blocks at least 0.4 (2-4% gradient) miles of coho, steelhead, and cutthroat habitat. Replace culvert with stream crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	Makah Tribe		
WSI	WSIRA#6j	HRA	On Village Creek (19.0240) near RM 0.25, a 185’ long perched culvert blocks 0.32 miles of coho, steelhead, and cutthroat habitat (0.23 miles of 2-4% gradient, moderately confined and 0.09 miles of 4-8% gradient, confined channel. Replace culvert with stream crossing structure that allows for better fish passage and sediment transport capacity.	Habitat connectivity	Medium	WSI Recovery Strategy 5	2	WSI Recovery Goal 2	Makah Tribe		
WSI	WSIRA#7	PA	Advocate implementation of the Hatchery Scientific Review Group (HSRG) recommendations set for forth in the 2004 Hatchery Reform Report (HSRG 2004).	Biological Processes	High	WSI Recovery Strategy 6	1	WSI Recovery Goal 3	WDFW and Tribes		
WSI	WSIRA#8	PA	Advocate the adoption of harvest management regulations that ensure salmonid spawning escapement is sufficient to maintain, protect, and/or restore salmonid VSP parameters.	Biological Processes	High	WSI Recovery Strategy 7	1	WSI Recovery Goal 3	WDFW and Tribes		
WSI	WSIRA#9	PA	Implement and/or continue to implement population abundance monitoring.	Biological Processes	High	WSI Recovery Strategy 7	1	WSI Recovery Goal 3	WDFW and Tribes		

Watershed	Action ID	Action Type	Action Description	Primary Watershed Process Addressed	Process-Input-Condition Impairment Rating	Primary Recovery Strategy Addressed	Recovery Action Hierarchy	Recovery Goal	Lead Agency	Action Priority	Comments
WSI	WSIRA#10	HRA	Reforestation of riparian forest and wetlands associated with flood plains to improve hydrologic processes related to flood capacity within the flood plain areas.	Hydrologic Processes	Unknown	WSI Recovery Strategy 8	3	WSI Recovery Goal 4	Various		
WSI	WSIRA#11	HRA	Reduce road related hydrologic impacts by reducing road densities and/or disconnecting road systems from the stream network.	Hydrologic Processes	Unknown	WSI Recovery Strategy 8	3	WSI Recovery Goal 4	Various		
WSI	WSIRA#12	PA	Limit future water withdrawals from WSI tributaries through the implementation of the WRIA 19 Watershed Plan (WRIA 19 Planning Unit 2010).	Hydrologic Processes	Unknown	WSI Recovery Strategy 8	1	WSI Recovery Goal 4	DOE		
WSI	WSIRA#13	RM&E and HRA	Inventory roads for maintenance (use existing RMAP and other available data), side cast removal, and drainage structure improvements. Prioritize for project actions.	Sediment Processes	Unknown	WSI Recovery Strategy 9, 10	3	WSI Recovery Goal 5	Various		
WSI	WSIRA#14	HRA	Reforest riparian and floodplain areas to increase stream bank integrity and reduce bank erosion.	Sediment Processes	Unknown	WSI Recovery Strategy 13	3	WSI Recovery Goal 5	Various		
WSI	WSIRA#15	RM&E	Few riparian and floodplain habitat data are available for WSI subbasin streams. Collecting additional data where data are lacking could help identify areas in need of riparian restoration.	Riparian and Floodplain Processes and Conditions	Medium	WSI Recovery Strategy 12, 13	1	WSI Recovery Goal 6	Not Defined		
WSI	WSIRA#16	HRA	Conversion of fields and non-forested riparian areas back to fully functional riparian forests. Target streams should include Colville, Whiskey, and Field creeks.	Riparian and Floodplain Processes and Conditions	Medium	WSI Recovery Strategy 12, 13	3	WSI Recovery Goal 6	Various		
WSI	WSIRA#17	HRA	Implement recommendations from the Western Strait Habitat Conservation Plan (NOLT in progress), which prioritizes important habitats that could benefit from conservation easements or acquisition.	Riparian and Floodplain Processes and Conditions	Medium	WSI Recovery Strategy 13	1	WSI Recovery Goal 6	Not Defined		
WSI	WSIRA#18	RM&E and PA	Map and delineate channel migration zones within the WSI sub-basins.	Riparian and Floodplain Processes and Conditions	Medium	WSI Recovery Strategy 13, 14	1	WSI Recovery Goal 6	Clallam County		
WSI	WSIRA#19	PA	Advocate and support a WRIA 19 representative of the North Olympic Peninsula Lead Entity (NOPLE) to participate in the Forest and Fish policy group. Individual would provide a conduit for information between the forest practices AM program and the salmon recovery efforts of NOPLE.	Riparian and Floodplain Processes and Conditions	Medium	WSI Recovery Strategy 14	na	WSI Recovery Goal 6	NOPLE		
WSI	WSIRA#20	RM&E and HRA	Conduct detailed instream meso-habitat mapping inventory and assessment. Implement wood supplementation in identified wood deficient zones from the habitat mapping assessment.	Habitat and LWD Conditions	Medium	WSI Recovery Strategy 15, 16	1/3/4	WSI Recovery Goal 7	Not Defined		
WSI	WSIRA#21	RM&E	Implement long-term surface water quality monitoring program (e.g., temperature, dissolved oxygen, pH, conductivity, turbidity, BIBI). Also include monitoring of hydrocarbons and other potential contaminants.	Water Quality Conditions	Unknown	WSI Recovery Strategy 17	1	WSI Recovery Goal 8	Not Defined		
WSI	WSIRA#22	PA	Advocate for effective implementation and enforcement of Forest Practice Rules and County Critical Areas Ordinances.	Water Quality Conditions	Unknown	WSI Recovery Strategy 18	na	WSI Recovery Goal 8	DNR and Clallam County		