

Appendix J – Project Inventory

WRIA 14 Project Inventory for Inclusion in the Watershed Restoration and Enhancement Plan

CATEGORIES (does not reflect prioritization)

- I. Likely to be implemented and provides quantitative offset value (see Chapter 5).
- II. Likely to be implemented and provides habitat benefit and/or un-quantifiable streamflow benefit (See Chapter 5)
- III. Unable to be implemented at this time because the project is highly conceptual or has other constraints.

Category	Project Name	Type of Project	Project Description	Estimated Water Offset Amount (af/yr)	Subbasin	Existing Sponsor	Potential Sponsor (Where No Existing Sponsor Exists)	Project Stage	Estimated Project Cost	Existing Funding
Case										
III	Mason Lake Lake and Beaver management	Non Water Rights Offset	Evaluate lake management and beaver activity to potentially develop a plan for managing beaver and lake levels, with the goal of stabilizing summer stream flows at higher levels.		Case			Conceptual		\$0
III	Mason Lake/Sherwood Creek MAR	Non Water Rights Offset	Develop MAR using high winter lake levels to recharge local aquifers and support Creek baseflows		Case			Conceptual		\$0
III	Lower Sherwood Creek Enhancement	Habitat and Other	Install habitat structures in lower Sherwood Creek, improve channel complexity, increase covered pools.		Case	South Puget Sound Salmon Enhancement Group		Conceptual		\$0
Goldsborough										
I	City of Shelton Reclaimed Water	Non Water Rights Offset	Convey reclaimed water to Corrections Center; use reclaimed water for 1) infiltration, or 2) replace groundwater pumping for irrigation or grey water uses. Find a way for WCC not to grow entirely into their water right. Move feasibility study for RW, reroute, storage and application to shovel-ready. Advance from the first grant from Squaxin Island Tribe	486	Goldsborough	City of Shelton		Conceptual	\$1,673,000	\$0
III	PE Connection Conversion City of Shelton Water and other group water systems	Non Water Rights Offset	Fund "Latecomers fees" to put homes on City water, where the water main is nearby.		Goldsborough	City of Shelton		Conceptual		\$0
III	Dayton Creek - Highland Rd. (MP 0.33)	Habitat and Other	Restore fish passage and habitat access by replacing double barrel pipe culverts with stream simulation design culvert			Mason County Public Works		Construction	\$494,475	\$420,304
III	Goldsborough Creek Acquisition	Habitat and Other	Acquire 500 acres in Goldsborough Creek watershed on mainstem Goldsborough Creek and tributaries. Highest priority sites will be identified through the proposed "WRIA 14 Landowner Outreach and Acquisition Project Development" project.		Goldsborough	Capitol Land Trust		Planning		\$0
III	Coffee Creek (including West and South Forks) agricultural areas	Restoration	Remeander, connect wetlands, riparian planting. Restore fen. Feasibility and design.		Goldsborough			Conceptual		\$0
III	Goldsborough Creek Railroad	Restoration	Remove culverts,		Goldsborough			Conceptual		\$0
III	Middle Goldsborough Creek	Restoration	Continue wetland and off-channel reconnection		Goldsborough			Conceptual		\$0
II	Goldsborough Creek-Hilburn Site Restoration	Non Water Rights Offset	Restore up to 500 feet of the Middle Goldsborough Segment (per E.D.T. conventions). The stream reach has been impacted by the placement of fill and armoring in the floodplain and immediate stream channel, resulting in a homogenous channel form that is mostly a riffle-glide complex. The large 'nose' of fill juts into the stream channel and forms a constriction. Stream conditions at this site, and largely throughout the reach, provide little salmonid rearing habitat, holding water, covered pools, or floodplain off-channel areas. The site was chosen due to its high potential for restoring natural processes and augmenting the habitat with in-stream woody elements, a need for this reach according to the EDT analysis and as per "A Regional and Geomorphic Reference for Quantities and Volumes of Instream Wood in Unmanaged Forested Basins of Washington State" (Fox and Bolton 2007). We anticipate the design for this project will call for at least 52 pieces of wood per 100 meters, likely much more.		Goldsborough			Conceptual	<\$1M	\$0
	North Fork Goldsborough Creek		SW side of prison properties - potential for winter wetland/off-channel augmentation.		Goldsborough			Conceptual		\$0
I	Evergreen Mobile Home Estates	Other	Decommission mobile home wells and septic systems. Connect park to City water and sewer.	7	Goldsborough			Conceptual	\$474,000	\$0
II	City of Shelton SWM Infiltration Projects		Possibility to expand on any of Shelton's existing SWM projects (Currently water quality focused)?		Goldsborough			Conceptual		\$0

Hood										
III	Hood Canal Watershed Comprehensive Riparian and Floodplain Vegetation Management	Habitat and Other	CHIN7.1: Protect and/or restore critical habitat for salmon populations.		Hood	Mason Conservation District		Planning/Design	\$1,718,762	\$572,000
III	Union Regional Water System Consolidation	Other	Propose water conservation, strategic modification of growth into inchoate rights that is least impactful to streams. Example golf course conservation, upgrade of Alderbrook wastewater treatment to reclaimed to water golf course, bringing in permit exempt wells to the consolidation system.		Hood			Conceptual		\$0
III	Mason PUD - Alderbrook		Reclaimed water use and possible infiltration at Alderbrook Golf Course.		Hood			Conceptual		
Kennedy										
III	Summit Lake Water Use	Water Rights Acquisition	Create Summit Lake Water District; Replace surface numerous water diversions with new groundwater right. Replace shallow wells and surface lake withdrawals with deeper well? Public rate structure to induce water conservation and therefore decrease total water use in the Kennedy watershed.	24-133	Kennedy			Conceptual		\$0
III	Kennedy creek Riparian Corridor Acquisition	Habitat and Other	Acquire in fee simple, approximately 900 acres on both banks of Kennedy Creek, both upstream and downstream of Kennedy Creek falls.		Kennedy	Western Rivers Conservancy		Feasibility	\$10,000,000	\$0
II	Steamboat Island North Wetland	Habitat and Other	Ditch removal and floodplain reconnection of a headwater wetland. Possible beaver reintroduction. ~195.3 acres		Kennedy	Thurston County		Conceptual	<\$1M	\$0
I	Steamboat Island Middle Wetland	Habitat and Other	Managed Aquifer Recharge (MAR) in conjunction with habitat restoration and parkland creation. ~344 acres	14	Kennedy	Thurston County		Conceptual	\$1 M	\$0
III	Upper Schneider Creek Restoration	Habitat and Other	Managed forestry to increase stand age in the upper Kennedy Creek basin. Acquire and hold as parkland. ~147 acres		Kennedy		Thurston County, WRIA 14 lead entity, Capitol Land Trust	Conceptual		\$0
III	Lower Schneider Creek Restoration	Habitat and Other	Ditch removal, MAR, and floodplain reconnection on the lower steamboat island peninsula. 212 acres		Kennedy		Thurston County	Conceptual		\$0
III	Burns/Schneider Creek Forestry	Habitat and Other	Managed forestry to increase forest stand age. Purchase and protect forest land on upper Burns Creek. 2,192 acres.		Kennedy		Thurston County	Conceptual		\$0
III	Forestry and Flow Assessment	Habitat and Other	Managed forestry to increase stand age in Kennedy, Schneider, and Perry Creeks for potential streamflow benefit.		Kennedy		Thurston County	Conceptual		\$0
II	Schneider Creek Source Switch	Water Rights Acquisition	Irrigation water source switch from surface water to groundwater. Currently conflicts with foster decision and would require a legislative fix. Possible future offset of 162 af/year if there is a change in legislation, pending validating and investigation.	64	Kennedy		Thurston County	Conceptual		\$0
Mill										
III	Gosnell Creek LWD and Riparian Design	Habitat and Other	Mason Conservation District will restore a high priority reach along the mainstem of Gosnell Creek through the implementation of multiple complimentary stream and riparian restoration practices including: 1) installing LWD in at least 0.5 miles of stream; 2) planting a minimum 7 acres of riparian vegetation; 3) installing approximately 1 mile of exclusion fencing; and 4) replacing an existing bridge with a new railcar bridge to negate the need for the landowner's wet crossing. The vast majority of the project area's riparian buffer is no longer intact and has been converted to pasture, with very little exclusion fencing in place to keep livestock out of the stream. Downstream of the project reach lies a warm shallow lake and several stream reaches that are 303(d) listed for exceeding temperature and bacteria limits. Upstream of the project reach lies some of the best spawning and rearing habitat in the watershed for Coho and steelhead. While Gosnell Creek provides several high quality tributaries, the majority of its lower mainstem suffers from a lack of riparian buffer, exclusion fencing, and LWD. In order to preserve the current instream temperatures of Gosnell Creek and sustain a healthy spawning and rearing refuge, local strategies recommend implementing projects that focus on riparian planting, working with landowners to install exclusion fencing, and installing LWD within the lower Gosnell Creek mainstem. This...		Mill	Mason Conservation District		Other	\$356,117	\$246,000
III	Mill/Gosnell Agricultural areas	Restoration	Remeander, connect wetlands, riparian planting. Feasibility and design.		Mill			Conceptual		\$0
III	Mid Gosnell	Restoration	Potential properties but have not discussed projects with landowners. Look for more parcels. Riparian restoration.		Mill			Conceptual		\$0

III	Upper Gosnell headwaters acquisition or conservation easement	Agreement or Conservation Easement or Acquisition	Recognizes an important headwater coldwater source. Low risk of conversion right now.		Mill			Conceptual		\$0
III	Reclaimed water to Mill Creek		Upgrade Fairmont WWTP to reclaimed. Move RW from Oakland Bay up and over the divide to the Mill Creek system, where there will be many permit-exempt wells.		Mill			Conceptual		\$0

Oakland

III	Protect the Coldwater Tributary of Johns Creek.		Secure protection for yet undeveloped private land.		Oakland			Conceptual		\$0
III	Johns Creek Reclaimed Water		Bring additional reclaimed water through upgrading of wwt and drinking water infrastructure at the Evergreen Estates mobile home park. Add the purple pipe as well, and extend it to vacant land north of the mobile home park to infiltrate it and get it back into the Johns Creek system.		Oakland			Conceptual		\$0
III	Johns Creek Rock Pit Water Right (Kadoun Quarry Surface Water Right)		Landowner has not been contacted. Retire all or part of 1 cfs water right, as they currently pump all of it for part of each summer day. 1 cfs water right - could talk to owner about the length of time anticipated for using water right, could put into trust after use, or if it will be in use for long time could they switch water source to a well that is separate from the creek. High priority area for salmon, although "low" in the watershed.		Oakland			Conceptual		\$0
III	Johns Creek Hatchery opportunities		Some water leaks into the pond away from mainstem Johns Creek. Get that water back into the creek. Or turn this into a managed aquifer recharge area.		Oakland			Conceptual		\$0

Skookum

III	Skookum Valley Habitat Acquisition (Freshwater)	Habitat and Other	Skookum (Skookum Valley) creek habitat acquisition -(i.e. easement on McDonald property), 300 acres with restoration to follow.		Skookum	Capitol Land Trust & Squaxin Island Tribe		Feasibility	\$4,000,000	\$0
II	Skookum Creek agricultural areas	Acquisition and Restoration	Remeander, connect wetlands, riparian planting. Squaxin can provide specifics. Design		Skookum			Conceptual	<\$1M	\$0
III	Skookum sideslopes and headwaters	Agreement or Conservation Easement or Acquisition			Skookum			Conceptual		\$0
III	Skookum Creek/Hurley Creek Water Right retirement		Retire any known active surface water rights in Skookum/Hurley.		Skookum			Conceptual		\$0
III	Skookum Creek reclaimed water projects		Apply Squaxin reclaimed water to the ground, so it makes it to Skookum Creek or Little Creek. Potential for a reclaimed water storage project.		Skookum			Conceptual		\$0
II	Skookum Valley railroad blockages	Habitat and Other	Replace culverts under railroad bed, reopen salmon access and floodplain connectivity		Skookum			Conceptual	<\$1-5M	\$0

WRIA-wide

III	Mason County Stormwater Retrofits	Non Water Rights Offset	Stormwater retrofits of existing built out areas, from Mason County comprehensive plan.		WRIA-Wide	Mason County		Scoping		\$0
III	Puget Sound Conservation District Stormwater Action Team Phase II	Non Water Rights Offset	BIBI1.1: Increase local capacity to manage stormwater programs., BIBI2.1: Provide education and incentives for legacy retrofits.		WRIA-Wide	Puget Sound Conservation Districts Caucus		Planning/Design	\$295,000	\$0
III	Simulate Summer Streamflows in Response to Groundwater Pumping and Climatic Effects	Monitoring	CHIN2.1: Protect and restore instream flows to levels necessary for salmon recovery		WRIA-Wide	U.S. Geological Survey		Planning/Design	\$1,230,000	\$0
III	HCCC Integrated Watershed Plan- Adaptive Management and Monitoring	Adaptive Management/Implementation	EST3.4: Collect and analyze data to adaptively manage estuary recovery practices, FP3.4: Collect and analyze data to adaptively manage floodplain recovery practices, LDC3.4: Collect and analyze data to adaptively manage recovery practices		WRIA-Wide	Hood Canal Coordinating Council		Implementation	\$160,000	\$60,000

III	Restore Naturally Functioning Riparian Buffers in South Sound	Habitat and Other	CHIN7.1: Protect and/or restore critical habitat for salmon populations.		WRIA-Wide	Mason Conservation District		Planning/Design	\$373,520	\$20,000
III	Shelton Green Stormwater Infrastructure Program Development - Phase 1	Non Water Rights Offset	BIBI1.1: Increase local capacity to manage stormwater programs., BIBI2.1: Provide education and incentives for legacy retrofits.		WRIA-Wide	Mason Conservation District		Design	\$317,000	\$317,000
III	WRIA 14 Habitat Acq Project Assessment	Conservation	This project will develop habitat conservation projects on the most strategic parcels for the protection of nearshore and freshwater salmon habitat in the Kennedy/Goldsborough Watershed (WRIA 14). It directly builds upon prioritizations and habitat assessments already completed by Capitol Land Trust (CLT), the WRIA 14 Lead Entity, and the Squaxin Island Tribe of important salmon habitat in WRIA 14. CLT will assess landowner willingness to pursue habitat protection on at least ten properties; their response will form the basis of subsequent Salmon Recovery Funding Board and other acquisition grant proposals. For two properties with willing landowners, CLT will complete tasks necessary to accurately determine project feasibility and the value of the property or conservation easement, including creating GIS maps, drafting conservation easement language (as applicable), and completing title review, field assessments, and appraisals. The completion of these due diligence tasks is integral for successful negotiations with landowners and project development of conservation projects. This project will protect tier-1 rearing and spawning habitat for Chinook, steelhead, and/or treaty-right salmonid populations, and essential habitat-forming natural processes.		WRIA-Wide			Conceptual		\$0
III	Small landowner riparian purchase program				WRIA-Wide			Conceptual		\$0
III	Well replacement - deeper into lower aquifer				WRIA-Wide			Conceptual		\$0
III	Develop water conservation projects.				WRIA-Wide			Conceptual		\$0
III	Beaver analog and beaver reintroduction				WRIA-Wide			Conceptual		\$0
III	Agricultural water efficiency.		Transfer water right to an instream flow or retire water rights.		WRIA-Wide					\$0
III	Mason County Rooftop Runoff LID		County requires new PE well or connection dwellings to infiltrate their rooftop runoff. The offset benefit would be the water saved from evaporation that would otherwise occur during runoff.	249	WRIA-Wide	Mason County		Conceptual	\$0, expected costs to be covered by costs of construction of new homes, ranging from \$3,780 to \$9,300 per home.	\$0
I	WRIA-wide MAR projects		Focused MAR project package in the Kennedy, Mill, Skookum, Goldsborough, Cranberry, Johns, and Sherwood subbasins.	910	WRIA-Wide	Thurston County, Mason County, Mason PUD 1		Conceptual	\$940,000	\$0
II	General floodplain reconnection projects		Identify floodplain reconnection project opportunities in WRIA 14		WRIA-Wide	Thurston County, Mason County, City of Shelton, Squaxin Island Tribe, etc.		Conceptual		\$0
I	Water Right Opportunities	Water Rights Acquisition	Identify opportunities for future water right acquisition and/or irrigation efficiencies.	111	WRIA-Wide			Conceptual	\$285,000	\$0
II	Forest Stand Age		Identify opportunities for managed forestry to increase forest stand age, providing streamflow benefit.					Conceptual		\$0