

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	
9	Project Legend																												
10	Active- partially or fully funded																												
11	Updated- information added or modified from 2013-2015 plan																												
12	Completed or In process of being completed																												
13	New- action is new to 3-year plan																												
14	No Change																												
15																													
16	Project Information														Project Planning							Project Cost and Sources			Strategy				
17	Type	Project Name	Brief Project Description	2014 Restoration Priority	Sponsor	Limiting Factors	Reference Document	Habitat Type	Project Performance	Species Benefitting	Current Project Status	Funding Sources	2014	2015	2016	Continues Beyond 2016	Total Project Cost	Est. 2014-2016 Budget	Existing funds (grants and local)	Unless otherwise noted, the results chain from the draft Nooksack Chinook MAMP is presented for the strategy.									
18										Primary	Secondary		In-Hand	Needed	task	est cost	task	est cost	task	est cost									
19	Multiple Areas in the Nooksack River Forks and Tributaries																												
20	Multiple Geographic Areas Within the Nooksack Forks and Tributaries																												
21	Restoration	Forest Road Assessment and Implementation	Assess high-risk forest roads in priority watersheds and develop prescriptions	Tier 1 or 2 depending on reach	USFS; Nooksack; SRST;	excessive sediment; channel instability	WRIA 1 SRP	Upland	prescriptions for 15 miles of orphaned road; volume of fill removed; miles of road abandoned	Chinook		RMAP data and road status assessment completed, Continue pursuing funding to implement SF assessment prescriptions; Capacity funding allocated to USFS to implement assessment in NF Nooksack	\$53,250 for NF	\$100,000 for SF	Implement RIA methodology to 81 miles FS roads in NF basin (USFS); Prioritize orphan roads identified in RMAPs for treatment	\$50,000; \$53,250	prioritize NF assessment road segments for treatment	\$50,000	TBD	TBD	yes	\$153,250	\$153,250	\$53,250	• Fine Sediment Source Reduction (WRIA1-RC2e-S1 Chinook MAMP Results Chain)				
22	Program; combination; acquisition	Nooksack R. Forks Priority Reach Planning and Acquisition	Acquisition of fee title or conservation easements in priority areas for restoration and/or protection in SF, MF and NF reaches	Tier 1 or 2 depending on reach	SRST; WLT	multiple Recovery Plan factors	WRIA 1 SRP			chinook	steelhead, bull trout, coho, pink, other salmonids	2013 South Fork Reach Acquisition Phase II Active	\$638,840	\$1,007,887	Landowner contacts; Complete 2013 funded acquisition	\$638,840 (RCO #13-1273)	Landowner contacts; acquisition	\$1,000,000	Landowner contacts; acquisition	1,000,000	yes	\$2,638,840	\$2,638,840	\$638,840	• Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) • Riparian Restoration (WRIA1-RC2.2-S1 Chinook MAMP Results Chain) • Floodplain Reconnection (WRIA1-RC2c-S1 Chinook MAMP Results Chain) • Floodplain-Salmon Recovery Integration (WRIA1-RC3-S1 Chinook MAMP Results Chain)				
23	South Fork Nooksack																												
24	Multiple Reach Projects and Programs																												
25	Plan	Lower South Fork Joint Transportation/Restoration Planning	Develop habitat restoration projects in conjunction with possible replacement or relocation of existing County transportation infrastructure	TBD	WCPW	Multiple; specific factors tied to infrastructure location	WRIA 1 SRP	Instream, Riparian/Floodplain	TBD -dependent on limiting factors addressed	Chinook	steelhead, bull trout, coho, pink, other salmonids	Potter Road Bridge under construction 2014-2015; coordination with lower Black Slough project design	Non-salmon recovery sources	Nooksack Tribe grant in process	Potter Road bridge construction	Non-salmon sources	Potter Road bridge construction	Non-salmon sources			yes	TBD; see Black Slough project for salmon funding needs	TBD	TBD	• Floodplain-Salmon Recovery Integration (WRIA1-RC3-S1 Chinook MAMP Results Chain)				
26	Research	South Fork Groundwater Model Development	Develop a groundwater-flow model and evaluate the influence of various restoration scenarios on temperature and baseflow in the South Fork.		Nooksack Tribe/USGS	instream flow, temperature	Acme-Confluence Reach Assessment and Restoration Plan; WRIA 1 SRP	Wetlands	Exploratory MODFLOW model; USGS Data Series Report of hydrologic data for model calibration; USGS Scientific Investigations Report of surface-groundwater interactions in the South Fork Nooksack River	Chinook	Bull trout, steelhead, coho, pink, sockeye.	Phase 1 complete. Need additional funding for Phase 2.	\$150,000	\$588,500	Phase 2: Calibrate model; simulate and run restoration scenarios.	\$588,500							\$738,500	\$588,500	\$150,000	• Instream Flow Protection/Restoration (WRIA1-RC5-S1 Chinook MAMP Results Chain)			
27	South Fork Reach Projects and Programs																												
29	Reach: Todd																												
30	Restoration	South Fork Black Slough Reach	ELJ construction	Tier 1	Nooksack	low habitat diversity, lack of deep pools with cover, high temperatures	SRP; Acme-Confluence Assessment	Instream	1.3 miles treated; 23 log jams placed (To be determined by design)	Chinook		2013 funding for Phase 1	\$68,540 (RCO #10-1808); \$424,908 (RCO #13-1275)	\$500,000	Phase 1 Construction	\$424,908	Seek funding for Phase II	\$500,000	Construction Phase II		yes	\$993,448	\$924,908	\$493,448	• Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain)				
31	Reach: Hardscrabble																												
32	Restoration	South Fork at Hardscrabble	ELJ construction	Tier 1	Nooksack	low habitat diversity, lack of deep pools with cover	SRP; Acme-Confluence Assessment	Instream	0.1 miles treated; 2 log jams placed	Chinook		design completed, Phase 1 construction complete; subsequent phases constrained by landowner willingness	\$57,600 design grant (#09-1683); \$68,846 phase 1 construction (#11-1566)	\$0	monitoring	\$2,000	monitoring	\$2,000		yes (effectiveness monitoring over time)	\$170,056	\$6,000	\$170,056	• Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain)					
34	Reach: BNSF																												
35	Restoration	McCarty Reach (6.5-8.5)	Instream restoration	Tier 1, Tier 2	Lummi	Temperature, floodplain connectivity, lack of key habitat (pools, cover, off channel refugia), low habitat diversity	SRP; Acme-Confluence Assessment	Instream, floodplain	acres floodplain connected; instream pools; # miles treated	Chinook	steelhead, cutthroat, bull trout, coho	Concepts			Design	80,000	Restoration	500,000	Yes	\$580,000	\$580,000		• Large Wood Restoration (WRIA1-RC2c-S1 Chinook MAMP Results Chain) • Floodplain Reconnection (WRIA1-RC2c-S1 Chinook MAMP Results Chain)						
37	Reach: Hutchinson																												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB					
	Project Information													Project Planning							Project Cost and Sources			Strategy									
	Type	Project Name	Brief Project Description	2014 Restoration Priority	Sponsor	Limiting Factors	Reference Document	Habitat Type	Project Performance	Species Benefitting	Current Project Status	Funding Sources	2014	2015	2016	Continues Beyond 2016	Total Project Cost	Est. 2014-2016 Budget	Existing funds (grants and local)	Unless otherwise noted, the results chain from the draft Nooksack Chinook MAMP is presented for the strategy.													
16																																	
17			Restoration	South Fork Downstream of Hutchinson Reach Restoration	ELJ construction	Tier 1	Nooksack	low habitat diversity, lack of deep pools with cover, high temperatures	SRP; Acme-Saxon assessment	Instream; riparian function	0.6 miles treated; 27 log jams placed	Chinook	steelhead, bull trout, coho, pink, other salmonids	Phase 1 and 2 constructed in 2006 and 2012; Phase 2 3 planned for 2014. Seeking funding for Phase 2a for 2015 construction. Subsequent phases dependent on landowner willingness.	\$68,540 (#10-1807) design; \$580,445 construction phase 1 and 2 (#11-1539); \$241,337 NEP funds	\$350,000	Phase 2 construction	\$406,032	Phase 2a construction	\$350,000		No	\$1,240,322	756,032	406,032	<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) Riparian Restoration (WRIA1-RC2.2-S1 Chinook MAMP Results Chain) 							
38			Restoration	South Fork Nisset's Reach Restoration	ELJ construction and riprap removal to restore conditions through reach	Tier 1	Nooksack	low habitat diversity, lack of key habitat, high temperatures	SRP; Acme-Saxon assessment; SF Log Jam Effectiveness Monitoring 2011	Instream	1.6 miles treated	chinook		Preliminary reach-scale design; final design for Phase 1; application for consideration as regional large capital project	\$100,000 (#12-1511)	\$3,020,062	seek funding for phase 1 construction and design for Phases 2-3	\$3,020,062 (Ph 1-3);\$90,000 (Ph 2-3 Design)		Begin Construction		yes	\$3,120,062	\$3,020,062	100,000	<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) 							
39																																	
41																																	
42			Restoration	Skookum-Edfro Restoration	Design for instream restoration	Tier 1 or 2 depending on strategy	Lummi	increase and improve pool habitat, habitat quality and diversity; increase stability of existing mid-channel islands	SRP; SF Assessment	Instream		Chinook		2013 funding received for design	\$84,723	\$80,000	complete preliminary design	\$84,723	Construction	\$700,000		yes	\$784,723	\$784,723	\$84,723	<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) 							
45																																	
46			Restoration	Upper Cavanaugh - Fobes Phase 2 South Fork Nooksack River In-Stream Restoration Design	Enhance Phase 1, Project design to improve habitat diversity and increase habitat quantity	Tier 1	Lummi	low habitat diversity, elevated temperature, degraded floodplain and in-river channel structure	SRP; SF Assessment	Instream	#LWD Structures; pools, enhanced side channels, acres of floodplain reconnected	Chinook	BullTrout; Steelhead	conceptual	\$1,490,000	design	90,000	seek construction funding	700,000	construction	700,000	yes	\$1,490,000	\$1,490,000		<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) Floodplain Reconnection (WRIA1-RC2c-S1 Chinook MAMP Results Chain) 							
47			Restoration	Camp 18 In-Stream Restoration Project	Design for restoration project	Tier 1	Lummi	create and improve pool habitat; increase habitat quality and diversity	SRP; SF Assessment	Instream		Chinook		alternate 2013 SRFB project	\$1,500,000	seek design funding	90,000	seek funding for final design; Construction	1,410,000	construction		yes	\$1,500,000	\$1,500,000		<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) Riparian Restoration (WRIA1-RC2.2-S1 Chinook MAMP Results Chain) Floodplain Reconnection (WRIA1-RC2c-S1 Chinook MAMP Results Chain) 							
48			Restoration	Larson's Reach Phase 2 Instream Restoration project	Project feasibility, risk assessment, 100% design, and construction budget for permitting of a project that increases channel shading, provide thermal refuge, and instream shading in the Larson's Bridge reach.	Tier 1	Lummi	1, 2, 6, A3, A4, A8	Upper S. Fork Nooksack River Habitat Assessment	Instream	#LWD Structures	Chinook	BullTrout; Steelhead	preliminary design; design grant funded; construction funding received	\$81,382 (#12-1515); \$1,503,672 (13-1280); other: \$501,109		Final design; Construction	\$1,503,672	Construction			No	\$2,086,163	\$2,004,781	\$2,086,163	<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) Riparian Restoration (WRIA1-RC2.2-S1 Chinook MAMP Results Chain) Floodplain Reconnection (WRIA1-RC2c-S1 Chinook MAMP Results Chain) 							
50																																	
51			Restoration	Elk Flats Restoration	Remove bank armoring and install log revetment to allow channel to migrate into southern terrace and move away from large sediment source	Tier 2a	Lummi	Sediment	Upper S. Fork Nooksack River Habitat Assessment	Instream		Chinook	BullTrout; Steelhead	Conceptual	\$60,650		Design	\$60,650				yes	TBD	\$60,650		<ul style="list-style-type: none"> Fine Sediment Source Reduction (WRIA1-RC2e-S1 Chinook MAMP Results Chain) Riparian restoration (WRIA1-RC2.2-S1 Chinook MAMP Results Chain) 							
52																																	
53			Restoration	FSR 1260 Road Decommission and Bridge Removal	Road decommissioning, bridge removal, and off channel habitat reconnection		USFS			Instream				Conceptual			To be added	To be added	TBD	TBD	TBD	TBD			To be added	To be added	To be added	<ul style="list-style-type: none"> Fine Sediment Source Reduction (WRIA1-RC2e-S1 Chinook MAMP Results Chain) Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) 					
54	Middle Fork Nooksack and Tributaries																																
55	Multiple Reach Projects and Programs																																
56			Restoration	Middle Fork Diversion Dam	Identify and implement preferred alternative for addressing barrier.	Tier 1	Bellingham; Co-Managers	reduced access to spawning habitat; obstructions	SRP	Fish Passage		Chinook		pending policy and partner discussions; on hold due to funding; applied for 2012 regional project of significance funding (not funded); 2014 application for PSAR large capital	\$3,000,000	\$17,000,000	policy/partner discussions; seek regional funding	\$20,000,000	TBD			TBD		TBD	\$20,000,000	\$20,000,000	\$3,000,000 (est local match)	<ul style="list-style-type: none"> Restore Chinook Passage (WRIA1-RC1-S1 Chinook MAMP Results Chain) 					
57	Middle Fork Reach Projects and Programs																																
60																																	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB					
	Project Information													Project Planning							Project Cost and Sources			Strategy									
	Type	Project Name	Brief Project Description	2014 Restoration Priority	Sponsor	Limiting Factors	Reference Document	Habitat Type	Project Performance	Species Benefitting	Current Project Status	Funding Sources	2014	2015	2016	Continues Beyond 2016	Total Project Cost	Est. 2014-2016 Budget	Existing funds (grants and local)	Unless otherwise noted, the results chain from the draft Nooksack Chinook MAMP is presented for the strategy.													
16																																	
17	Restoration	Middle Fork Porter Creek Reach Instream Restoration		Tier 1	Lummi	Low habitat diversity, Lack of key habitat; Elevated water temperatures; Disconnected floodplain	MF Habitat Assessment; MF Porter reach basis of design	Instream	.42 miles side channel protected; 1.13 miles mainstem/side channel enhanced; 1.6 miles of side channel habitat	chinook	Bull trout, steelhead, coho	Conceptual design for reach; preliminary design for Phase 1				seek funding Phase 1 and final design for Phases 2-5	75000 design (P1); 110,000 (P2-5)	construct P1; seek construction funding P2-5	PhA-827,300	construction P2-5	1,040,645	yes	\$3,810,000	3,810,000	400,000	<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) Floodplain Reconnection (WRIA1-RC2c-S1 Chinook MAMP Results Chain) Riparian Restoration (WRIA1-RC2.2-S1 Chinook MAMP Results Chain) 							
61	North Fork Nooksack and Tributaries																																
67	North Fork Reach Projects and Programs																																
70	Reach: Farmhouse																																
71	Restoration	North Fork Farmhouse Reach Restoration	restore historic channel planform, habitat diversity, and habitat functions	Tier 1	Nooksack	channel instability, low habitat diversity	SRP, North Fork Assessment	Instream	157 structures placed; 3.0 miles treated; 2.1 miles of stable spawning habitat	Chinook		Feasibility study and preliminary reach-scale design complete; Phase 1 design final; Phase 2 construction summer 2014; application for consideration as regional large capital project	\$176,475 (#09-1680); 284,554 (PCSRF and NWIFC NEP funding); \$950,362 Phase 1 construction and Phase 2 design (#13-1276)	\$4,663,767	Phase 1 construction; seek funding P2.1 (-6) construction; seek funding P3 design	\$473,301; \$402,322 (P2.1); \$70,979 (P3)	seek funding Ph2.2 construction; seek funding Ph 4 design	\$1,471,415	seek funding design P5-6; Ph3 construction	\$850,059	yes	\$6,075,158	\$2,794,775	\$1,411,391	<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) Floodplain Reconnection (WRIA1-RC2c-S1 Chinook MAMP Results Chain) Riparian Restoration (WRIA1-RC2.2-S1 Chinook MAMP Results Chain) 								
76	Reach: Wildcat																																
77	Restoration	North Fork Wildcat Reach Restoration	restore historic channel planform, habitat diversity, and habitat functions	Tier 1	Nooksack	channel instability, low habitat diversity	SRP, North Fork Assessment	Instream	67 structures placed; 1.5 miles treated	Chinook		Design; permits; phase 1 constructed; phase 2 funded, phase 3 funded and scheduled for construction	\$674,379 (#11-1572); \$199,170 (WA DOE); \$414,605 (#12-1514)	\$0	Complete Phase 3 construction	\$129,000	monitoring	\$5,000			yes	\$2,118,433	\$129,000	\$129,000	<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) Floodplain Reconnection (WRIA1-RC2c-S1 Chinook MAMP Results Chain) Riparian Restoration (WRIA1-RC2.2-S1 Chinook MAMP Results Chain) 								
78	Reach: Canyon																																
79	Restoration	Lower Canyon Creek Phase 2 Restoration	Complete next phases in a series of projects to restore habitat forming process and passage in the lower mile of Canyon Creek	Tier 1	WCPW/WCFCZD	passage, habitat diversity & complexity, riparian condition	WRIA 1 SRP (2005); HEC (2007a,b), KWL (2003); HEC (2012)	Instream; fish passage; riparian	access to 3.9 miles; 23 channel structures; 29 acres of historic channel area reopened	Chinook	steelhead, pink, coho, salmon, bull trout, cutthroat trout	Schedule 2A constructed in 2013, Schedule 2B to be constructed in 2014 to complete project.	Project is fully funded	Project is fully funded.	finish construction (9 ELJs); final planting;	\$975,000	post project monitoring	\$5,000	post project monitoring	\$5,000	Yes	\$3,645,000	\$985,000	Fully funded	<ul style="list-style-type: none"> Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) Floodplain Reconnection (WRIA1-RC2c-S1 Chinook MAMP Results Chain) Riparian Restoration (WRIA1-RC2.2-S1 Chinook MAMP Results Chain) Floodplain-Salmon Recovery Integration (WRIA1-RC3-S1 Chinook MAMP Results Chain) 								
80	Tributaries North Fork Nooksack																																
81	Restoration	FSR 39 Road Relocation	Road setback, rock groin removal, reopen off channel habitat		USFS			Instream				Conceptual			To be added	To be added	TBD	TBD	TBD	TBD					To be added	To be added	To be added	<ul style="list-style-type: none"> Fine Sediment Source Reduction (WRIA1-RC2e-S1 Chinook MAMP Results Chain) Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) 					
82	Restoration	FSR 37 Road Relocation and Fish Passage Improvement	Road setback, LWD installation, improve Boyd Creek fish passage		USFS			Instream				Conceptual			To be added	To be added	TBD	TBD	TBD	TBD					To be added	To be added	To be added	<ul style="list-style-type: none"> Fine Sediment Source Reduction (WRIA1-RC2e-S1 Chinook MAMP Results Chain) Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) 					
83	Restoration	Glacier Creek Side Channel Restoration	Rock groin removal, LWD installation, and road removal		USFS			Instream				Conceptual			To be added	To be added	TBD	TBD	TBD	TBD					To be added	To be added	To be added	<ul style="list-style-type: none"> Fine Sediment Source Reduction (WRIA1-RC2e-S1 Chinook MAMP Results Chain) Large Wood Restoration (WRIA1-RC2.1-S1 Chinook MAMP Results Chain) 					
84	Habitat Assessments																																
85	Upper Mainstem																																
86	Assessment	Upper Mainstem Reach Assessment and Restoration Planning to establish long term objectives	habitat assessment and restoration planning for the SF confluence to Everson; includes participation in SWIF process	n/a	Nooksack; SRST; Lummi; Whatcom County			Instream; riparian	restoration plan	Chinook	Coho, Pink, Chum, Sockeye, Bull Trout, Steelhead, Cutthroat	early conceptual			Restoration Planning, conceptual designs for 2 projects	\$150,000					yes	\$150,000	\$150,000		<ul style="list-style-type: none"> WRIA 1 Salmonid Recovery Plan, Appendix B, p.B-8 								
87	Planning	Nooksack SWIF and CFHMP Update	Refine levee vegetation management to stay eligible in ACOE PL84-99 program while identifying opportunities to integrate salmon habitat restoration	n/a	Whatcom County River & Flood	riparian function, habitat diversity and complexity		Instream; riparian	Completed management plan with vegetation and habitat restoration project opportunities; scope & begin CFHMP update process	Chinook	Coho, Pink, Chum, Sockeye, Bull Trout, Steelhead, Cutthroat	In progress	\$300,000 - State; \$120,000 FCZD	SWIF Funded: CFHMP funding in pre-proposal stage	Team meetings, reach meetings	\$550,000 (includes some 2013 costs on lower river)	Funding plan, scope CFHMP, SWIF management plan draft, review and approval.	\$100,000 FCZD; \$80,000 State	CFHMP update	\$410,000 - FCZD	SWIF - No; CFHMP - Yes	\$300,000	\$300,000 + CFHMP grant award (TBD)	\$1,060,000	<ul style="list-style-type: none"> Floodplain-Salmon Recovery Integration (WRIA1-RC3-S1 Chinook MAMP Results Chain) WRIA 1 Salmonid Recovery Plan, Appendix B, p.B-8 								