_	Table E-1							
Asotin Creek Management Area Actions								
Implementation Organization	(R) / Obligation (O)		Lead (L) / Support (S)	Actions				
	Water Quantity Management							
Cities/ Towns: Asotin	R	L		ground water conditions to determine if additional withdrawals from are sustainable.				
Asoun	R	L		al water rights to develop additional water supply from ground water to e needs of City of Asotin, if study determines withdrawal is sustainable				
	Water Qu	antity Ma	anagement					
	R	L	Improve irrig	ation efficiencies, including conveyance and application methods.				
	R	L	Upgrade dive	rsions to include meters where required				
	R	S	Continue inst Asotin Creek	ream flow monitoring through permanent and seasonal gauges on				
	Water Qu	ality Mar	nagement					
Conservation	R	L	levels on Aso 1. Manure ma	tes and implement the following strategies to reduce fecal coliform of otin Creek: unagement, 2. develop alternative water sources for existing surface rirrigated agriculture and stockwater				
	R	L	Creek: 1. direct seed 3. riparian in 6. sediment b 9. cross fenci	e following strategies to reduce TSS levels at the mouth of Asotin 1, 2. upland management BMPs, provement, 4. CREP/CRP, 5. grassed waterways, asins, 7. weed control, 8. grazing management, ng, 10. alternative water sources, anagement (livestock operations)				
District:	R	L		rategies to reduce water temperatures				
Asotin County Conservation District	R	L	rangeland, cre 1. maintain conservation	promote the following BMPs for erosion control for pasture and opland, and forest land: existing CRP acres (including exploring alternative funding), 2. tillage, 3. increase grass waterways, strip cropping, 6. improve riparian grazing				
	R	S	1	onstruct sewer collection and treatment facility for Anatone				
	Aquatic H	abitat Er	hancement	Management				
	R	L	Implement acrestoration of	uatic habitat strategies; 1. enhance restoration, 2. protection and Asotin Creek, 3. Asotin County Fish Screens, 5. Upland Sediment LWD replenishment and replacement				
	R	L	Implement pa	assive restoration projects, CREP, conservation easements, and upland ned to reduce sediment delivery and increase filtration				
	R	S		ify fish passage obstruction				
	R	S	Conduct inveremoval/mod	ntory and analysis of other fish passage barriers, and prioritize for ification				
	R	S	Evaluate fish screens. Replace inadequate screens					
	R	S		ivate and public landowners to maintain and enhance pristine and other eadwaters by encouraging applications of BMP's				
	R	L	Restore areas activities sucl	of degraded riparian vegetation on private and public land through as CREP and CRP participation and site-specific BMP's with an early he most degraded areas				

Table E-1							
Asotin Creek Management Area Actions							
Implementation Organization	Recommendation (R) / Obligation (O)		Lead (L) / Support (S)	Actions			
	Regulate	ory Actions	S				
	R L		areas and pris	Implement/enforce federal, state and local land use regulations to protect critical areas and pristine areas of the implementation area Review and update, as needed, best-available-science-based riparian buffer zones and critical areas regulations			
	Water (Quantity M	anagement				
	R	L	Design and co	onstruct sewer collection and treatment facility for Anatone.			
Counties: Asotin County	R	L	Identify sources and implement the following strategies to reduce fecal coliform levels on Asotin Creek: 1. upgrade or connect septic to sewer, 2. explore opportunities for regionalization wastewater treatment plants, and 3. connect fringe rural areas to urban sewer system.				
	Water Quality Management						
	R	L	Adopt the Eastern Washington Stormwater manual and implement the following strategies to improve stormwater management and treatment and increase groundwater infiltration: 1. sediment basins 2. infiltration trenches 3. swales/wetlands 4. rural/urban drainage ditch upgrades and treatment Identify and designate aquifer recharge areas				
	Water (l Juantity M	anagement	n aquifer recharge areas through critical area ordinances			
	O	L	Continue inst	ream flow monitoring through permanent and seasonal gauges in Asotin the purpose of gathering short term flow data to assist the Planning Unit instream flow work			
Ecology	О	L		equire the installation and use of water meters in accordance with RCW an WAC 173-173-040			
	0	L	that would ad	anning Unit during Phase IV Implementation on regulatory alternatives dress out of basin changes and transfers of water consistent with current se laws and rules/regulations			
	R	S	Improve irrig	ation efficiencies, including conveyance and application methods			

Table E-1 Asotin Creek Management Area Actions							
Implementation Organization	Recommendation L		ead (L) / Support (S)	Actions Actions			
	Water Quality	Manage	ment				
	R	S	levels on A 1. install Bl sewer, 3. ex	Asotin Creek: MP's for livestock manure management, 2. upgrade or connect septic to explore opportunities for regionalization of wastewater treatment plant, 4. nge rural areas to urban sewer systems			
	R	S		hnical assistance in the design and construction of the sewer collection ent facility for Anatone			
Ecology, cont.	R	S		strategies to reduce water temperatures in Asotin Creek			
	Regulatory Ac	ctions					
	0	L	Establish mappropriate	ninimum instream flows in rule/regulation for Asotin Creek and tributaries			
	0	L		Establish administrative stream closures in rule/regulation, to include all appropriate Asotin Creek tributaries (timeframe to be determined)			
	Water Quality	Manage	ment				
NRCS	R	S	rangeland, Conservation	and promote following BMP's for erosion control for pasture and cropland and forest land: 1) Maintain existing CRP acres, 2). on tillage, 3) increase grass waterways, 4) buffers, 5) strip cropping, 6) parian grazing management			
	R	S	implement	individual landowners to review pesticide and fertilizer use; and to the following best management practices to limit water quality prestore riparian areas, 2) urban/rural education program, 3) on tillage			
	Water Quanti	ty Manag	gement				
USGS	R	S	Continue ir Asotin Cree	astream flow monitoring through permanent and seasonal gauges on ek			
	Water Quality	y Manage	ment				
WSU Extension	R	S	Work with implement impacts:	individual landowners to review pesticide and fertilizer use; and to the following best management practices to limit water quality iparian areas, 2) urban/rural education program, 3) conservation tillage			
	R	S	rangeland, 1) maintain 2) conserva	nd promote the following BMPs for erosion control for pasture and cropland, and forest land: existing CRP acres (alternative funding) ation tillage, 3) increase grassed waterways, 4) buffers, 5) strip improve riparian grazing management			

riilai Fian	Table E-1							
_	Δα	sotin Cr		gement Area Actions				
	Recomme		Lead (L) /	gement Area Actions				
Implementation	(R) / Obl	_	Support (S)	Actions				
Organization	anization (O) Water Quality Manag							
	water Qu	lanty Mana	gement 					
	R	S	Establish and and forest lan	promote BMP's for erosion control for pasture and rangeland, cropland d				
	Aquatic Habitat Enhancement Management							
	R	S	Implement aquatic habitat restoration actions listed in table 6-2					
	R	S	Implement pa	ssive restoration project actions listed in table 6-2				
WDEW	R	S	Provide techn including fish	ical assistance and support to remove/modify fish passage obstructions, screens				
WDFW	R	S		ical assistance for the inventory and analysis of other fish passage nelp prioritize for removal				
	О	L	instream flow	ation on WDFW land where diversions have potential impact on as and will look for opportunities to place water into trust. This will be as funding and resources allow.				
	Regulator	gulatory Actions						
	R	S	Implement/Enforce federal, state, and local landuse regulations to protect critical pristine areas in the IA					
	R	S	Review and u	pdate, as needed, best available science-based riparian buffer zones and egulations				
	Aquatic H	labitat Enh	ancement M	anagement				
	R	S		uatic habitat restoration actions listed in table 6-2				
Now Domes	R	S		ssive restoration project actions listed in table 6-2				
Nez Perce Tribe	R	S	Restore area of degraded riparian vegetation on private and public land through activities such as CREP and CRP participation and site-specific BMP's with an emphasis on the most degraded areas					
	R	S		ify fish passage obstruction				
·	R	S	Conduct inver	ntory and analysis of other fish passage barriers, and prioritize for				
	_							
	Water Qu	ality Mana	ĭ					
	R	S	rangeland, cro	promote the following BMP's for erosion control for pasture and opland, and forest land: 1) creation and maintenance of road ROWs, 2) etation grassed waterways, 3) buffers				
	Aquatic H	abitat Enh	ancement M					
USFS	R	S	following prioriparian zones	uatic habitat and protection and restoration plans; including the prity projects: 1) sediment reduction, 2) enhancement of habitat in a for ESA listed species, 3) control of noxious weeds, 4) planting of tion, 5) school fire riparian recovery				
	R	S		blic land and wildlife management agencies to maintain and enhance ther areas, with specific focus on the post-school fire recover by P's				
	R	S	Implement aq	uatic and passive restoration projects listed in table 6-2				

			Tal	ble E-2				
Middle Snake River Management Area Actions								
Implementation Organization			Lead (L) / Support (S)	Actions				
Cities/ Towns:	Water Q	uantity Ma	anagement					
Clarkston				ground water conditions to determine if additional withdrawals from are sustainable				
Water Quantity Management								
	R	S - All	Continue inst	ream flow monitoring through permanent and seasonal gauges				
	R	S - All		ground water conditions to determine if additional withdrawals to of the existing surface water withdrawals for irrigation is possible and				
	R	S - All		all water rights to develop additional water supply from ground water to be water withdrawals for irrigation if study determines withdrawals are				
Conservation	Water Q	uality Mai	nagement					
Districts: Asotin County, Palouse,	R	L - All	rangeland, cre CRP acres, 3	promote the following BMP's for erosion control for pasture and opland, and forest land: 1) noxious weed control, 2) maintain existing 0 conservation tillage, 4) increase grassed waterways, 5) buffers, 6) strip improve riparian grazing management				
Columbia	Aquatic Habitat Enhancement Management							
and Pomeroy	R	S - All	Implement aquatic habitat protection plans					
	R	L - All	Implement passive restoration plans listed in Table 6-4					
	R	S - All	Remove/modify fish passage obstruction					
	R	S - All	Conduct inverse removal	ntory and analysis of other fish passage barriers, and prioritize for				
	R	L - All	Evaluate fish if necessary	screens on water diversions for adequacy. Replace inadequate screens				
	Water Q	uantity Ma	anagement					
	O	L		ream flow monitoring through permanent and seasonal gauges for the thering short term flow data to assist the Planning Unit in additional work				
Ecology	R	S		ground water conditions to determine if additional withdrawals to of existing surface water withdrawals for irrigation is possible and				
	R	S	Seek addition	al water rights to develop additional water supply from ground water to be water withdrawals for irrigation if study determines withdrawal is				
	R	S		basalt groundwater sources, availability and sustainability near Snake ow, where basalt is connected to Snake River				

			Table	e E-2				
Middle Snake River Management Area Actions								
Implementation Organization	Recommendation (R) / Obligation (O)		Lead (L) / Support (S)	Actions				
	Water Q	uality Ma	nagement					
	R S		Investigate sources on Alpowa Creek	and implement appropriate strategies to reduce fecal colifom levels				
Ecology, cont.	R	S		lity monitoring through permanent and seasonal gauges for oliform, dissolved oxygen, sediment and TSS				
neology, com	R	S	implement the follo	al landowners to review pesticide and fertilizer use; and to wing best management practices to limit water quality impacts: 1) is, 2) urban/rural education program, 3) conservation tillage				
	Regulation	ons						
	O	L	Establish administrative stream closure and/or instream flow where appropriate (time period to be determined)					
	Water Q	uality Ma	nagement					
	R	S	Establish and promote the following BMP's for erosion control for pasture and rangeland, cropland, and forest land: 1) noxious weed control, 2) maintain existing CRP acres, 3) conservation tillage, 4) increase grassed waterways, 5) buffers, 6) strip cropping, 7) improve riparian grazing management					
	Aquatic 1	Habitat E	nhancement Ma	nagement				
	R	S	Implement aquatic habitat protection plans, including list of prioritized projects					
	R	S	Implement passive restoration projects, including CREP riparian buffers, conservati easements, land acquisition, and where appropriate, upland projects designed to red sediment delivery and increase filtration					
WDFW	R	S	Provide technical assistance and support for the remove/modify fish passage obs					
	R	S		ssistance and support for the analysis and inventory of other fish d prioritize for removal				
	R	S	Restore areas of degraded riparian vegetation on private and public land through activities such as CREP, CRP participation and site-specific BMP's (e.g. placemer large woody debris, long-term recruitment from riparian planting, restricting livest access, etc) with an early emphasis on the most degraded areas					
	Regulato	ry Action	s					
	R	S		ssistance to local governments to help implement/enforce federal, use regulation to protect critical and pristine areas of the IA				
	R	S	Review and update, as needed, best available science-based riparian buffer zones and critical area regulations					

			Tabl	e E-2			
Middle Snake River Management Area Actions							
Implementation Organization	Recommendation (R) / Obligation (O)		Lead (L) / Support (S)	Actions			
	Water Qua	lity Mana	~				
	R	L	treatment and	e following strategies to improve stormwater management and increase groundwater infiltration: 1) implement rural road BMP's, 2) ng, 3) mowing vs. spraying			
Cities and Counties:	R	L	Identify and	lesignate aquifer recharge areas			
Clarkston and	R	L	Protect know	n aquifer recharge areas through critical area ordinances			
Asotin	Regulation	S					
	R	L	and pristine a				
	R	L		update, as needed, best available science-based riparian buffer zones rea regulations			
	Water Quality Management						
WSU	R	S	implement th	dividual landowners to review pesticide and fertilizer use; and to e following best management practices to limit water quality impacts: arian areas, 2) urban/rural education program, 3) conservation tillage			
Extension	R	S	Establish and promote the following BMPs for erosion control for pasture and rangeland, cropland, and forest land: 1) noxious weed control 2) maintain existing CRP acres (including exploring alternative funding), 3) conservation tillage, 4) increase grassed waterways, 5) buffers, 6) strip cropping, 7) improve riparian grazing management				
	Water Qua	ntity Ma	nagement				
	R	L	Continue instream flow monitoring through permanent and seasonal gauges				
USGS	R	L	Characterize basalt groundwater sources, availability, and sustainability nea Snake River and below, where basalt is connected to Snake River				
	R	S	Sole source aquifer study				
	Water Qua	lity Mana	agement				
NRCS	R	L	implement th	dividual landowners to review pesticide and fertilizer use; and to e following best management practices to limit water quality impacts: arian areas, 2) urban/rural education program, on tillage			
	R	s	Establish and promote the following BMPs for erosion control for pasture rangeland, cropland, and forest land: 1) noxious weed control 2) maintain existing CRP acres (including exploalternative funding), 3) conservation tillage, 4) increase grassed waterway 5) buffers, 6) strip cropping, 7) improve riparian grazing management				

Table E-2									
	Middle Snake River Management Area Actions								
Implementation Organization	Recommendation (R) / Obligation (O)		Lead (L) / Support (S)	Actions					
	Aquatic	Habitat En	hancement M	anagement					
Nez Perce Tribe	R	S	Implement aquatic habitat protection plans						
WSDOT	R	S	treatment and ir 1. BMPs for roa	following strategies to improve stormwater management and acrease groundwater infiltration: d construction and maintenance ing during reconstruction spraying					
	Water Q	uality Man	agement						
Counties: Asotin, Garfield	R	L	Implement the following strategies to improve stormwater management and treatment and increase groundwater infiltration: 1. Implement rural road BMPs 2. Shaping/ grading 3. mowing vs. spraying						
and Whitman	R	L	Identify and des	ignate aquifer recharge areas					
	R	L	Protect known a	quifer recharge areas through critical area ordinances					

Table E-3									
Pataha Creek Management Area Actions									
Implementation Organization	Recommenda (R) / Oblig		Lead (L) / Support (S)	Actions					
	Water Quar	ntity Mai	nagement						
City: Pomeroy	R	L		te ground water conditions to determine if an additional withdrawals d water are sustainable					
	R	L		Iditional water supply from ground water to provide future needs for study determines withdrawals are sustainable					
	Water Quar	tity Ma	nagement						
	R	L	Identify op	portunities for irrigation efficiency					
	R	S		pilot project to encourage beaver activity for multi-purpose storage ms, wetlands and water retention					
	Water Qual	ity Mana							
Conservation District:	R	L	Creek: 1) grazing in	the following strategies to reduce fecal coliform levels in Pataha identify failing septic systems, 2) restore riparian buffers, 3) manage riparian areas					
	R	L	reducing th	the following strategies to reduce TSS levels in Pataha Creek by the sediment load entering the creek: 1) CRP, 2) conservation tillage, grass waterways, 4) buffers, 5) strip cropping, 6) improve riparian nagement					
Pomeroy and Columbia Conservation	R	L	rangeland,	nd promote the following BMP's for erosion control for pasture and cropland and forest land: 1) conservation tillage, 2) increase grass (3) buffer strips, 4) strip cropping, 5) improve riparian grazing nt					
Districts	Aquatic Habitat Enhancement Management								
	R	S	Conduct in	ventory and analysis of fish passage barriers					
	R	S	Evaluate fi	sh screens on water diversions and replace if necessary					
	R	S		as of degraded riparian vegetation on private and public land through ke CREP, CRP and site specific BMP's					
	R	S		as of degraded riparian vegetation on private and public land through on easements with an early emphasis on the most degraded areas					
	R	L		private, federal and state landowners to use BMP's to maintain and istine areas of the headwaters					
	Water Quar	tity Mai							
	О	S	Pataha Cre	nstream flow monitoring through permanent and seasonal gauges on ek for the purpose of gathering short term data to assist the Planning litional instream flow work and flow management purposes					
	R	S		te ground water conditions to determine if an additional withdrawal ad water are sustainable					
Ecology	R	S		Iditional water supply from ground water to provide future needs for study determines withdrawals are sustainable					
	R	S	replace sor and sustain						
	R	S	water to re	onal water rights to develop additional water supply from ground place surface water withdrawals for irrigation if study determines is sustainable					

Table E-3								
Pataha Creek Management Area Actions								
Implementation Organization			Lead (L) / Support (S)	Actions				
	Water Qua	lity Mar	nagement					
	R	S		nt the following strategies to reduce fecal coliform levels in Pataha Creek: y failing septic systems, 2) restore riparian buffers, 3) manage grazing in reas				
Ecology, cont.	R	S	Impleme	nt strategies to reduce water temperature: 1) riparian enhancement				
	R	S	managem	h landowners to review pesticide and fertilizer use; and to implement best tent practices to limit water quality impacts: 1) restore riparian areas, 2) al education, 3) conservation tillage				
	Water Qua	lity Mar	Management					
	R	S	rangeland waterway	Establish and promote the following BMP's for erosion control for pasture and rangeland, cropland and forest land: 1) conservation tillage, 2) increase grass waterways, 3) buffer strips, 4) strip cropping, 5) improve riparian grazing management				
	R	S	Provide to	echnical assistance for feasibility of stream re-engineering to improve flows quality.				
	Aquatic Habitat Enhancement Management							
WDFW	R	S	Provide to	echnical assistance and support for the removal of fish passage obstructions				
	R	S	Provide technical assistance for evaluating diversion sites and permitting fish screen to ensure that they meet State and Federal guidelines					
	R	S		reas of degraded riparian vegetation on private and public land through like CREP, CRP and site specific BMP's				
	R	S		reas of degraded riparian vegetation on private and public land through ion easements with an early emphasis on the most degraded areas				
	R	S		h private, federal and state landowners to use BMP's to maintain and pristine areas of the headwaters				
	Water Qua	lity Mar	nagement					
Garfield	R	L		nt the following strategies to reduce fecal coliform levels in Pataha Creek: y failing septic systems, 2) restore riparian buffers, 3) manage grazing in reas				
County	R	L		mplement/enforce federal, state and local land use regulations to protect and pristine areas of the IA				

Table E-3						
Pataha Creek Management Area Actions						
Implementation Organization	Recommendation (R) / Obligation (O)		-	Actions		
	Water	Quality M	lanagement			
NRCS						
- Titles	R	L	Establish and promote the following BMP's for erosion control for pasture and rangeland, cropland and forest land: 1) conservation tillage, 2) increase grass waterways, 3) buffer strips, 4) strip cropping, 5) improve riparian grazing management			
	Water	Quality M	lanagement			
USFS R I Wor			•	ate, federal and state landowners to use BMP's to maintain and areas of the headwaters		
	Water	Quantity 1	Management			
USGS	R	L	Continue/expand instream flow monitoring through permanent and seasons on Pataha Creek			
	Water Quantity Management					
WSDOT	R	L	Remove/modif	y fish passage obstructions		

			Table	€ E-4					
	Tucar	non R	River Mana	gement Area Actions					
Implementation Organization	Recommendation (R) / Obligation (O) Water Quantity Ma		Lead (L)/ Support (S)	Actions					
HCCC	Water Qua	ntity Ma	ı — — — — — — — — — — — — — — — — — — —						
USGS	R	L	Implement instre Tucannon River	eam flow monitoring through permanent and seasonal gauges on					
	Water Quantity Management								
	R	S	Characterize gro ground water are	und water conditions to determine if additional withdrawals from sustainable					
	R	S	sources if study	water withdrawals for agriculture irrigation with ground water determines withdrawal is sustainable and practicable; source d be implemented during low flow periods or permanently where					
	R	L		nities for water right leases and/or acquisitions through the WDOE gram and/or water banking					
	Water Qua	lity Man	agement						
Conservation	R	L	Conduct a study to current condition and sources of water quality: 1) determing inputs of Pataha Creek are impacting water quality in the Tucannon, 2) identifications of fecal coliform, 3) determining the natural temperature ranges for the Tucannon, 4) collect data in accordance with Ecology standards for use in devistate-required TMDL's						
District: Columbia	R	S	Implement the following strategies to reduce fecal coliform levels at mouth of Tucannon: 1) septic system repair and/or upgrade, 2) livestock BMP's, 3) regulat of point sources, 4) restore riparian buffers, 5) manage grazing in riparian areas						
Conservation District	R	L	Implement the following strategies to reduce TSS levels by reducing the sedime load entering the Tucannon: 1) conservation tillage, 2) grassed waterways, 3) sediment basins, 4) improved riparian function, 5) reduce erosion from roads						
	R	L	Identify opportunities for funding for landowners to reduce sediment from roa						
	R	L	Continue on-goin	ng strategies to reduce water temperatures thru BMP's					
	R	L	Establish and promote the following BMP's for erosion control for pasture an rangeland, cropland, and forest land: 1) creation and maintenance of county F 2) agricultural BMP's to buffer fields next to roads, 3) conservation tillage, 4) increased grassed waterways, 5) buffers, 6) strip cropping						
	Aquatic Habitat Enhancement Management								
	R	L	Implement table	6-7 aquatic habitat protection and restoration plans					
	R	L	Restore areas of	degraded riparian vegetation on private land					
	R	S	Develop pilot pro	oject for conservation easements					
	R	S	Remove/modify	fish passage obstructions					
	R	L	Continue to prov	ride surface water diversions with effective screens					
	Water Qua	ntity Ma							
	0	S	Tucannon River	eam flow monitoring through permanent and seasonal gauges on for the purpose of instream flow management					
Ecology	R	S	Characterize ground water conditions to determine if additional withdrawals fi ground water is sustainable						
	R	s	sources if study of substitution coul feasible	water withdrawals for agriculture irrigation with ground water determines withdrawal is sustainable and practicable; source d be implemented during low flow periods or permanently where					
Ecology, cont.	Water Qua	ntity Ma	nagement						

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_			Table	e E-4				
	Tucannon River Management Area Actions							
Implementation Organization	Recommendation (R) / Obligation (O)		Lead (L)/ Support (S)	Actions				
	R S		resources and ide	hydrogeology study to understand basalt and alluvial ground water entify sustainable levels of ground water withdrawals that could be surface water diversions				
	R	S	Identify wetland	storage projects				
	R	S		Explore opportunities for water right leases and/or acquisitions through the WDOE Trust Water Program and/or water banking				
	Water Qual	ity Man	agement					
	R	to current condition and sources of water quality: 1) determine if the Creek are impacting water quality in the Tucannon, 2) identify coliform, 3) determining the natural temperature ranges for the lect data in accordance with Ecology standards for use in developing MDL's						
	R	S	Tucannon: 1) se of point sources,	ollowing strategies to reduce fecal coliform levels at mouth of ptic system repair and/or upgrade, 2) livestock BMP's, 3) regulation 4) restore riparian buffers, 5) manage grazing in riparian areas				
	R	S	Implement the following strategies to reduce TSS levels by reducing the sediment load entering the Tucannon: 1) conservation tillage, 2) grassed waterways, 3) sediment basins, 4) improved riparian function, 5) reduce erosion from public roads					
	R S R S		Continue on-goir	ng strategies to reduce water temperatures thru BMP's				
			Work with individual landowners to review pesticide and fertilizer use; and to implement the following best management practices to limit water quality impacts: 1) non-chemical weed control practices of ditches and ROW's, 2) restore riparian areas, 3) urban/rural education programs, 4) conservation tillage					
	Regulatory	Actions						
	R	L	Establish minimum instream flows in rule/regulation for Tucannon River Management Points 1a, 1b and 3					
	Water Qual	itv Man						
	R	S	Establish and promote the following BMP's for erosion control for pasture ar rangeland, cropland, and forest land: 1) creation and maintenance of county 2) agricultural BMP's to buffer fields next to roads, 3) conservation tillage, 4 increased grassed waterways, 5) buffers, 6) strip cropping					
	R	S	Continue instream flow and water quality monitoring through permanent and seaso gauges.					
WDFW	Aquatic Ha	bitat En	hancement Ma	anagement				
WDFW	R	S	Prioritize funds f	or post-fire restoration (School Fire) on public lands				
	R	S	Implement table	6-7 aquatic habitat protection and restoration plans				
	R	S	Restore areas of	degraded riparian vegetation on public land				
	R	S	Provide technical obstructions	assistance and support for the remove/modify fish passage				
	R	S	Provide technical assistance for evaluating diversionsites and permitting fish so to ensure that they meet State and Federal guidelines					
	О	L		on on WDFW land where diversion have potential impact on instream ok for opportunities to place water into trust				
	Water Qual	ity Man	agement					
NRCS	R	S	Work with individual landowners to review pesticide and fertilizer use; and to implement the following best management practices to limit water quality impon-chemical weed control practices of ditches and ROW's, 2) restore riparia 3) urban/rural education programs, 4) conservation tillage					
	R	S	rangeland, cropla 2) agricultural B	omote the following BMP's for erosion control for pasture and and, and forest land: 1) creation and maintenance of county ROW's, MP's to buffer fields next to roads, 3) conservation tillage, 4) It waterways, 5) buffers, 6) strip cropping				

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			Table	∍ E-4				
	Tucan	non R	River Mana	gement Area Actions				
Implementation Organization	Recommen (R) / Oblig (O)		Lead (L)/ Support (S)	Actions				
	Water Qual	ity Man	agement					
WSU	R	S	implement the fo	idual landowners to review pesticide and fertilizer use; and to bllowing best management practices to limit water quality impacts: 1) seed control practices of ditches and ROW's, 2) restore riparian areas, ucation programs, 4) conservation tillage				
Extension	R	S	rangeland, cropla 2) agricultural B	omote the following BMP's for erosion control for pasture and and, and forest land: 1) creation and maintenance of county ROW's, MP's to buffer fields next to roads, 3) conservation tillage, 4) d waterways, 5) buffers, 6) strip cropping				
	Water Qual	ity Man	agement					
	R	S	Establish and promote the following BMP's for erosion control for pasture and rangeland, cropland, and forest land: 1) creation and maintenance of road ROV increased vegetation grassed waterways, 3) buffers					
	Aquatic Habitat Enhancement Management							
USFS	R	L	Prioritize funds for post-fire restoration (school fire) on public lands					
	R	L	Implement aquatic habitat and protection and restoration plans; including the following priority projects: 1) sediment reduction, 2) enhancement of habitat in riparian zones for ESA listed species, 3) control of noxious weeds, 4) planting of native vegetation, 5) school fire riparian recovery					
	R	L	Work with public land and wildlife management agencies to maintain and en pristine and other areas, with specific focus on the post-school fire recover by applying BMP's					
	Water Quantity Management							
	R	S	Conduct detailed hydrogeology study to understand basalt and alluvial ground w resources and identify sustainable levels of ground water withdrawals that could potentially replace surface water diversions					
County:	Water Quality Management							
Columbia County	R	L	Implement the following strategies to reduce fecal coliform levels at mouth of Tucannon: 1) septic system repair and/or upgrade, 2) livestock BMP's, 3) regul of point sources, 4) restore riparian buffers, 5) manage grazing in riparian areas					
	Regulatory		ī					
	R	L		ce local land use planning to protect areas in IA				
NPT	_		hancement Ma	anagement				
114	R	S	Implement table	6-7 aquatic habitat protection and restoration plans				

Table E-5								
Grande Ronde River Management Area Actions								
Implementation Organization	Recommend (R) / Obliga (O)		Lead (L) / Support (S)	Actions				
	Water Quan	tity Ma	anagement					
	R	L	Continue in	nstream flow monitoring at seasonal and permanent gauging stations.				
USGS	R	L		Installation of additional instream flow gauges with focus on perennial stream with potential fish habitat.				
	Water Qual	ity Mar	agement					
	R	L	Continued	water quality monitoring at existing locations.				
	Water Quar	tity Ma	anagement					
Conservation District: Asotin County Conservation	R	L	Modify sur necessary.	face water diversions to meet NOAA fish passage standards where				
	R	L		quate water supply for irrigation by: 1) upgrading low efficiency changes in irrigation timing, and 3) storage for periods of low				
	Water Qual	ity Man	nagement					
	R	L	Identify so levels on C 1. Manure upgrade or 3. Explore	urces and implement the following strategies to reduce fecal coliform Grande Ronde: management (6 locations on Asotin, 2 on Couse, 3 on Tenmile), 2. connect septic to sewer opportunities for regionalization of wastewater treatment plant, 4. nge rural areas to sewer systems				
	R	L	Implement Ronde: 1. direct so 3. riparian 6. sedimen 9. cross fer	the following strategies to reduce TSS levels at the mouth of Grande red, 2. upland management BMPs, improvement, 4. CREP, 5. grassed waterways, t basins, 7. weed control, 8. grazing management, acing, 10. alternative water sources, management (livestock operations)				
District	R	L	Implement	regular water quality monitoring program that will identify ns to high instream temperatures, fecal coliform an sediment delivery				
	Aquatic Habitat Enhancement Management							
	R	L	Implement	actions to reduce instream temperatures within Grande Ronde and tributaries				
	R	L	prioritized Ronde Sup	puatic habitat restoration and protection plans; including the following projects: 1) Bull Trout monitoring and Recovery Planning 2) Grande plementation Program Monitoring and Evalutation 3) Life studies of fall Chinook				
	R	S	Restore are easements	as of degraded riparian areas through CREP or permanent conservation				
	R	S		rriers to fish passage such as: 1) improperly screened diversions 2) culvert modifications				
	R	S	Improve de	egraded channel conditions where necessary				

Table E-5							
Grande Ronde River Management Area Actions							
Implementation Organization	Recommendation (R) / Obligation (O)		Lead (L) / Support (S)	Actions			
	Regulatory .	Actions	S				
	R	L	areas and p	replement/enforce federal, state and local land use regulations to protect critical eas and pristine areas of the implementation area. eview and update, as needed, best-available-science-based riparian buffer zones and critical areas regulations.			
	Water Qual	itv Ma	nagement				
Counties: Asotin County	R	L	Implement 1) manure manageme inventory/r overflows (Implement the following actions to reduce fecal coliform levels on Grande Ronde: 1) manure management 2) riparian enhancement 3) improve/encourage grazing management for operations adjacent to streams 4) septic system inventory/management/straight pipes 5) reduce or eliminate combined sewage overflows 6) urban sources 7) inventory/dye testing septic systems adjacent to floodplains and waterways 8) other applicable BMP's implementable			
	Miscellaneous Studies						
	R			evelop a more complete knowledge of land uses that impact water quality, water nantity and aquatic habitat.			
	Water Quar	ntity M	anagement				
	O	L	Unit during	o collaborate with and support the Middle Snake Watershed Planning g Phase IV Implementation on Instream Flow Habitat Analyses, Instream Flows, Closures, and Groundwater Recommendations			
	0	L	Continue to	o monitor and regulate withdrawals/diversions as appropriate			
Ecology	0	L	Joseph Cre	instream flow monitoring through permanent and seasonal gauges on reek for the purpose of gathering short term flow data to assit the Unit in additional instream flow work			
	R	L		of additional instream flow gauges with focus on perennial streams tial fish habitat.			
	R	L	diversions	o require installation and use of water use meters for surface water and groundwater withdrawals in accordance with RCW 90.03.360 (2) 17-173-040			
	0	L	alternatives	Planning Unit during Phase IV Implementation on regulatory s that would address out of basin changes and transfers of water with current water law, case laws and rules/regulations			

Table E-5							
Grande Ronde River Management Area Actions							
Implementation Organization	Recommen (R) / Oblig (O)		Lead (L) / Support (S)	Actions			
	Water Qual	ity Mana	agement				
	R	S		regular water quality monitoring program that will identify to high instream temperatures, fecal coliform and sediment delivery ies.			
	R	S	Continued wa	ater quality monitoring at existing locations in Grande Ronde River.			
	Regulatory	Actions					
	О	L		nimum Instream Flows in rule/regulation on the Grande Ronde and appropriate, in collaboration with the Middle Snake Watershed t			
Ecology, cont.	O	L	rule/regulation	ministrative Closures and/or minimum instream flows in on as appropriate on the Grande Ronde and tributaries in collaboration IA 35 Watershed Planning Unit			
	О	L	specifically for	e for the use of groundwater in the gravel and basalt aquifers, or the development of rural domestic exempt wells in collaboration IA 35 Watershed Planning Unit			
	Miscellaneouse Studies						
	R	s	Conduct detailed hydrogeology study to understand basalt and alluvial grour water resources and identify sustainable levels of ground water withdrawals meet future needs				
	R	S		indwater levels in basalt aquifer to assess potential impacts of bundwater use, primarily with rural ("exempt") wells			
	Water Quality Management						
NRCS	R	S	rangeland, cr Conservation	promote following BMP's for erosion control for pasture and opland and forest land: 1) Maintain existing CRP acres, 2). tillage, 3) increase grass waterways, 4) buffers, 5) strip cropping, 6) rian grazing management			
IVICS	R	S	implement th	dividual landowners to review pesticide and fertilizer use; and to e following best management practices to limit water quality estore riparian areas, 2) urban/rural education program, 3) tillage			
	Aquatic Hal	bitat Enl	nancement M	anagement			
	R	S	Implement ac mainstem and	ctions to reduce instream temperatures within Grande Ronde d tributaries			
USFWS	R	S		iers to fish passage such as: 1) improperly screened diversions 2) alvert modifications			
	R	L	prioritized pr	atic habitat restoration and protection plans; including the following ojects: 1) Bull Trout monitoring and Recovery Planning 2) Grande ementation Program Monitoring and Evalutation 3) Life studies of Il Chinook			

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			Table	e E-5			
	Grande F	Ronde	River Ma	nagement Area Actions			
Implementation	Recommendation (R) / Obligation		Lead (L) / Support	Actions			
Organization	(O)	4 N/	(S)				
	Water Quali	ty Mana		ollaborate with and support the Middle Snake Watershed Planning			
	0	L	Unit during P Minimum Ins	hase IV Implementation on Instream Flow Habitat Analyses, tream Flows, Closures, and Groundwater Recommendation			
	R	S	coliform leve	rese and implement the action listed in table 6-2 to reduce fecal ls on Asotin Creek promote BMP's for erosion control for pasture and rangeland,			
	R	S	cropland and				
	Aquatic Hab	itat Enl	hancement M	anagement			
	0	L	Unit during P	ollaborate with and support the Middle Snake Watershed Planning hase IV Implementation on Instream Flow Habitat Analyses, tream Flows, Closures, and Groundwater Recommendations			
	R	S	Implement aq	uatic habitat restoration actions listed in table 6-2			
WDEW	R	\mathbf{S}	Implement pa	assive restoration project actions listed in table 6-2			
WDFW	R	S	obstruction	ical assistance asn support for the remove/modify fish passage			
	R Provide technical assistance and support for the analysis and inventory of fi passage barriers and help prioritize removal						
	Regulatory Actions						
	R	S	Provide technical assistance to local governments to help implement/Enforce federal, state, and local land use regulations to protect critical and pristine at the IA				
	R	S	Review and update, as needed, best available science-based riparian buffer zo and critical area regulations				
	Water Quality Management						
	R	S	Implement regular water quality monitoring program that will identify contributions to high instream temperatures, fecal coliform and sedim from tributaries				
	R	S	Implement th 1) manure ma management inventory/ma overflows 6)	e following actions to reduce fecal coliform levels on Grande Ronde magement 2) riparian enhancement 3) improve/encourage grazing for operations adjacent to streams 4) septic system magement/straight pipes 5) reduce or eliminate combined sewage urban sources 7) inventory/dye testing septic systems adjacent to ad waterways 8) other applicable BMP's			
	Aquatic Hab	itat Enl	hancement M	anagement			
	R	S	mainstem and				
USFS, Nez Perce Tribe	R	S	Develop aquatic habitat restoration and protection plans; including the prioritized projects: 1) Bull Trout monitoring and Recovery Planning Ronde Supplementation Program Monitoring and Evaluation 3) Life stapping and fall Chinook				
	R	S	Restore areas of degraded riparian areas through CREP or permanent coreasements				
	R	S	Address barriers to fish passage such as: 1) improperly screened diversic inadequate culvert modifications				
	Regulatory A	Actions					
	R	S		aforce federal, state and local land use regulations to protect critical stine areas of the IA.			

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Table E-6							
Basin Wide Management Area Actions							
Implementation Organization	Recommendation (R) / Obligation (O)		Lead (L) / Support (S)	Actions			
	General						
	R	S - All	Protect existing	water rights, private property rights and tribal treaty rights			
	R	S - All	associated with residential, com	hance regional economy and provide future economic opportunities the watershed hydrology, including but not limited to municipal, mercial, industrial, agricultural, tourism, and instream water uses			
	R	S – All		Establish detailed funding plan for implementation, including: projects, programs, long-term monitoring and evaluation of watershed plan implementation			
	R	S - All	Encourage fairn	ess in distributing costs and burdens of water resource management			
	R	S – All	management ap	ency in federal, state and local water resources regulatory and proaches, and obtain local, state, and federal and tribal buy-in and recommended management strategies			
	R	S – All		ate land use plans and regulations as necessary to be compatible with er resource management goals			
	R	S – All	Support implem	entation of urban and rural land management BMP's			
	R	S – All		fic basis, including use of bio-assessment performance measure for aseline conditions and measuring watershed enhancements			
	Water Q	Quantity Ma	nagement				
	О	L – All	Continue to collaborate with and support the WRIA 35 Planning Unit during Ph IV implementation on instream flow analysis, minimum instream flows, closure groundwater recommendations				
E-J1 C4-4-	0	L – DOE		nitor and regulate withdrawals/diversions as appropriate			
Federal, State and Local	О	WDFW	Evaluate irrigati instream flows	on on WDFW lands where diversions have potential impact on			
Agencies / Governments,	R	S - All		m reliable and predictable water supplies for municipal, residential, ustrial, agricultural, recreational, and instream water uses			
Tribes	R	S - All	Continue and improve instream flow and water quality monitoring through and seasonal gauges providing baseline data needed to manage flows and fa future water management decisions				
	R	S - All	Characterize surface and ground water availability and recharge/discharge be and connectivity within the sub-basins and surrounding region to ensure adec long-term ground water resources to meet existing and needs, consistent with city and county land use plans.				
	R	S - All	Encourage storm resource needs	nwater and/or wastewater reclamation and reuse to satisfy other water			
	R	S - All	-	relop opportunities to enhance available water supply, emphasizing te, aquifer storage and recovery, source substitution, reclamation and awater retention.			
	R	S - All		vation and efficiency of water use, including but not limited to ential, agricultural, recreational, and instream water uses			
	R	L - DOE	transfers of surfa agricultural com	mend Ecology deny applications that propose out of basin changes or ace or groundwater rights based on the desire to preserve the aponent of the local communities.			
	R	S - All		ty, timelines and efficiency in water rights decisions			
	Water Q	Quality Man					
	R	S - All	and other uses (i	and ground water quality needed for public drinking water supplies including but not limited to municipal, residential, commercial, ultural, recreational, and instream water uses)			
	R	S - All	Review state surface water quality standards and establish natural (system potential) temperature levels for streams and rivers that reflect conditions within the watersheds				

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_	Table E-6							
	Basin Wide Management Area Actions							
Implementation Organization	Recommendation (R) / Obligation (O)		Lead (L) / Support (S)	Actions				
	General							
	R	S - All	Protect existing	water rights, private property rights and tribal treaty rights				
	R	S - All	Emphasize voluntary and incentive-based management solutions, including Continuous Conservation Reserve Program (CCRP), Conservation Reserve Enhancement Program (CREP) and Conservation Security Program (CSP)					
	R	S - All	associated with	thance regional economy and provide future economic opportunities the watershed hydrology, including but not limited to municipal, mercial, industrial, agricultural, tourism, and instream water uses				
	R	S - All		ed funding plan for implementation, including: projects, programs, toring and evaluation of watershed plan implementation				
	R	S - All	Improve consistency in federal, state and local water resources regulatory and management approaches, and obtain local, state, and federal and tribal buy-in and cooperation for recommended management strategies					
Asotin County, Pomeroy,	R	S - All	Review and update land use plans and regulations as necessary to be compatible wi and support water resource management goals					
Columbia and	R	S - All	Support implementation of urban and rural land management BMP's					
Whitman Conservation	R	S - All	addressing topic	aintain ongoing water resource management education and outreach, es including water use, conservation, reclamation, reuse, stormwater d best management practices				
Districts, NRCS, FSA, WSU	R	S - All	Restore and enhance natural floodplain, riparian and wetland capacities, wher feasible, to increase aquifer recharge, improve water quality, provide aquatic riparian habitat and reduce the duration and severity of flood events					
Extension,	R	S - All	Develop and im	plement noxious weed control programs with focus on public lands				
cities	Water Quantity Management Actions							
	R	S	permanent and stacilitate future	nprove instream flow and water quality monitoring through seasonal gauges providing baseline data needed to manage flows and water management decisions				
	R	S	Promote conservaton and efficiency of water use, including but not limited municipal, residential, commercial, industrial, agricultural, recreational, and water uses					
	R	L	Improve certainty, timelines and efficiency in water rights decisions					
	Water (Quality Man	agement Acti	ons				
	R	S	Improve water quality to the extent practicable given the natural conditions					
	R	S		rater in both urban and rural areas to improve water quality, reduce hance aquifer recharge where practicable				

				g			
Table E-6							
Basin Wide Management Area Actions							
Implementation Organization	(R) / Ob	endation oligation O)	Lead (L) / Support (S)	Actions			
	Obligation	on					
Legislative / Regulatory	О	S - All	DOE will work with the WRIA 35 Planning Unit during Phase IV on a recommendation to the Legislature to amend Chapter 90.14 RCW so that it does not serve as a disincentive to water conservation				
	О	S - All	DOE will review Stockwater Conveyance Policy and work with the WRIA 35 Planning Unit during Phase IV on recommendations for amendment to the water c that would address alternative to riparian stockwater				
	0	S - All		ninistrative closures and/or minimum instream flows in rule/regulation e on WRIA 35 tributaries in collaboration with the WRIA 35 Planning			
	О	S - All		regulation for the use of groundwater specifically for the development stic permit exempt wells in collaboration with the WRIA 35 Planning			
O S - All DOE will work with WRIA 35 Planning Unit during Phase IV alternatives that would address out-of-basin changes and transf				rk with WRIA 35 Planning Unit during Phase IV on regulatory nat would address out-of-basin changes and transfers of water			