

APPENDIX F

AQUATIC ESA COMPLIANCE INFORMATION



Salmonid Project Design Criteria Compliance Worksheet
BLUE MOUNTAIN PROVINCIAL EXPEDITED PROCESS

Project Name: South George Vegetation and Fuels Management

Administrative Unit: Pomeroy Ranger District

Agency Contact: Del Groat (Fish Biologist), Tara Hanger (Fuels Planner), Su Meredith (Silviculturist)

Report Date: September 8, 2009

Level I team: Tracii Hickman, Rebecca Dittmann, Marisa Meyer (Umatilla Level 1)

Species and/or designated critical habitat covered: Snake River steelhead and Snake River critical habitat

Watershed(s) affected by the project: (include HUC#) 170601030203 (South Fork Asotin Creek HUC 6), 170601030206 (Upper George Creek HUC 6) (sub-watersheds of the Asotin Creek watershed HUC 5 1706010302)

PROJECT DESCRIPTION: (*FOCUS ON THE PROJECT COMPONENTS THAT MAY AFFECT LISTED SALMONID SPECIES OR THEIR DESIGNATED CRITICAL HABITATS*)

The South George Vegetation and Fuels Management project has been designed using the Blue Mountain PDC for the following project components:

Mechanized (use of heavy equipment) Vegetation Management (outside of RHCAs)

- Thin dry and moist upland forests to a species composition and structure compatible with the historical range of variability. Thinning treatments are used to reduce forest density, modify species composition, and reduce insect and disease susceptibility by improving tree and stand vigor. Regeneration treatments are used to improve upland forest sites where early-seral species are no longer present in ecologically viable amounts.

Road Maintenance

- Conduct road maintenance on 79 miles of system roads used by timber sales. This would include spot rocking, blading and ditch relief culvert cleanout as needed to prevent, reduce or minimize sedimentation from timber haul. One undersized culvert on an intermittent channel (Forest Road 4300130) would be replaced with a rock ford that protects the channel, and eliminates the current condition of the culvert plugging (which results in water flowing over the road and creating sedimentation).

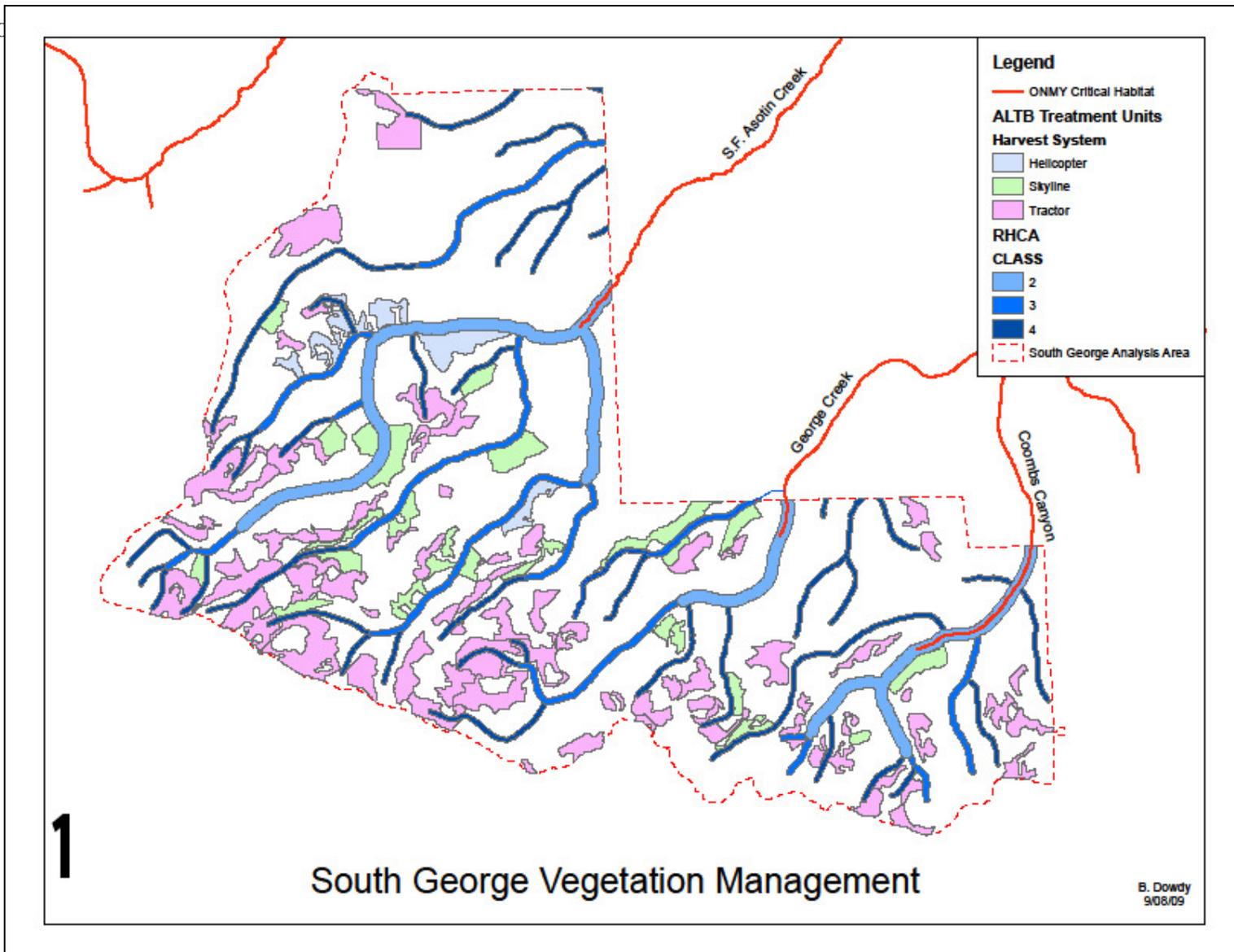
Non-mechanized Vegetation Management – Prescribed Burning (no ignition in RHCAs)

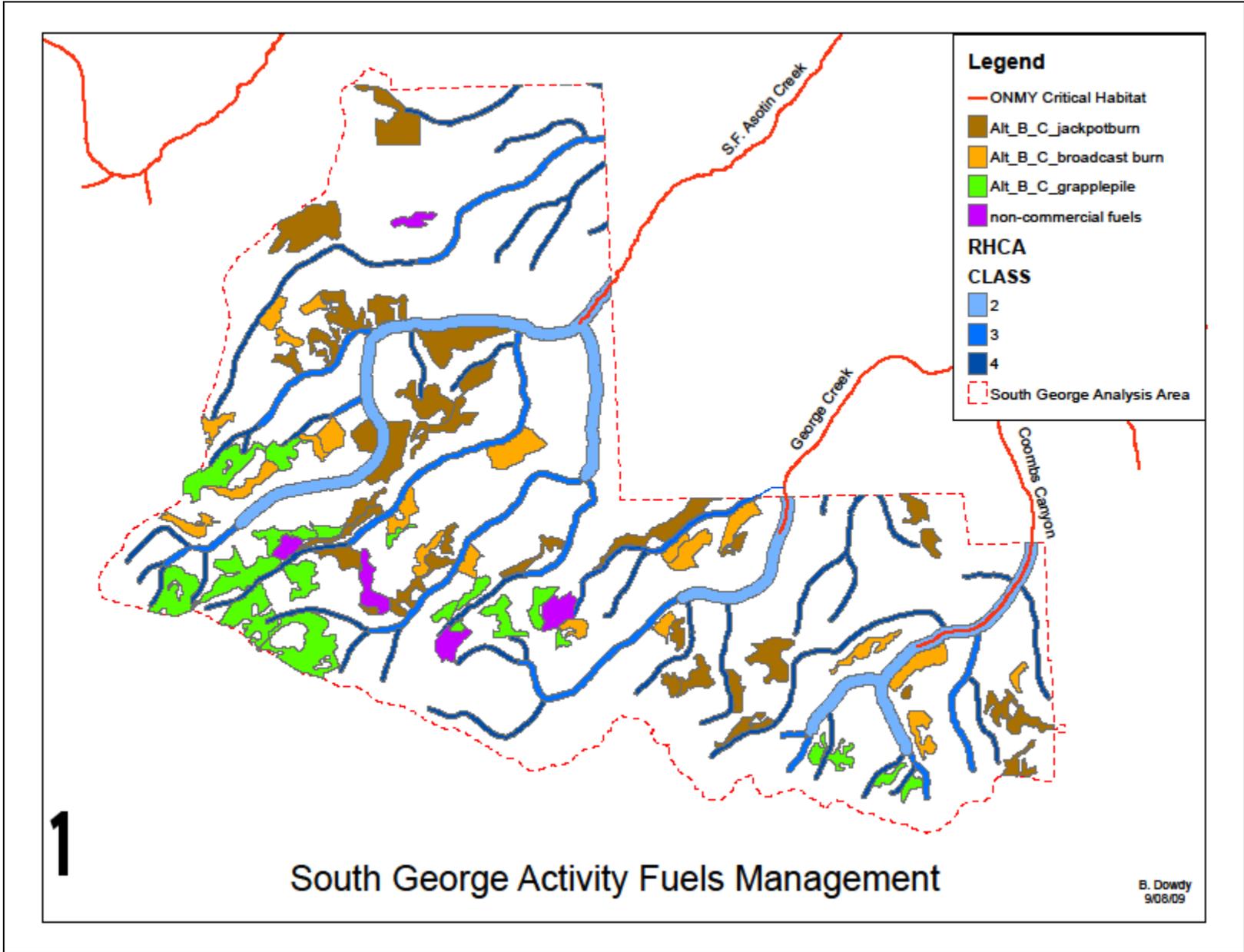
- Reduce fuel loading (surface, ladder and canopy fuels) to a level that facilitates future reintroduction of low-intensity surface fire, reduce ladder and ground fuels in natural fuel areas to lower the risk of fire spread into the upper canopy, and reduce fuels that would contribute to uncharacteristic wildfire intensity and resource damage.

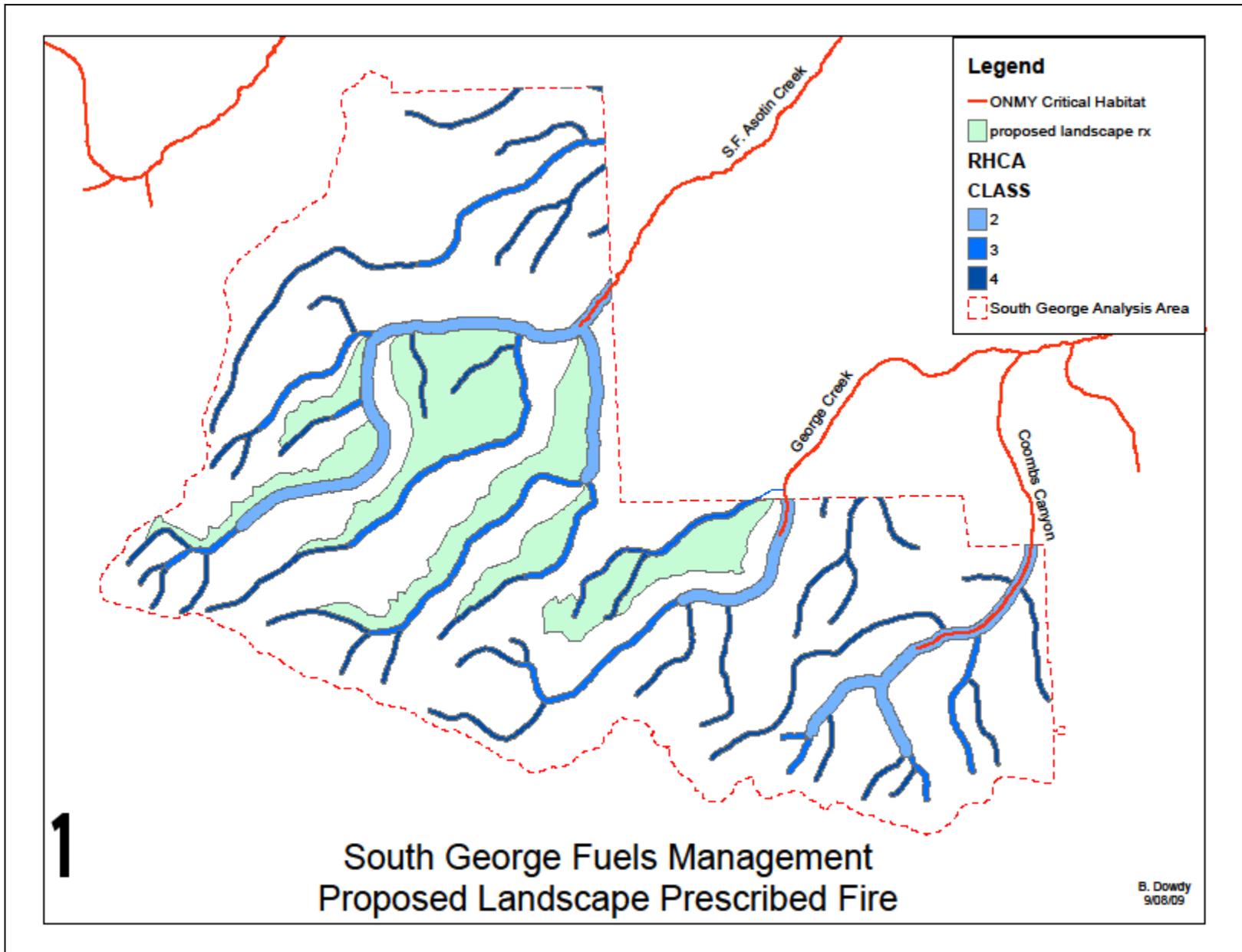
Summary of Project Activities:

Acres in South Fork Asotin Creek and Upper George Creek	20,653
<u>Timber Harvest</u>	
Summary of South George Project Silvicultural Activities outside RHCA's	Approximate Acres
Improvement cutting/free thinning	3,020
Low thinning	80
Clear cutting with reserves	250
Seed-tree cutting with reserves	550
(regeneration and seed-tree cutting areas will be planted with trees to meet desired ecological conditions)	
Total (approximately)	3,900
<u>Fuels</u>	
Summary of South George Project Activity and Natural Fuel Treatments outside RHCA's	Approximate Acres
Mechanical Grapple Piling (on same acres as timber harvest)	870
Prescribed burning of activity fuels (on same acres as timber harvest)	2,030
Non-commercial mechanical thinning and ladder fuel reduction	800
Non-commercial hand thinning and ladder fuel reduction	350
Landscape prescribed fire	3,000
Total (approximately)	7,075
<u>Road Maintenance</u>	Approximate Miles
79 miles of system roads used by timber sales	79

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RATIONALE FOR CONSISTENCY WITH PROJECT DESIGN CRITERIA

Habitat Parameter		PDC Component	Rationale
Water Quality	Water Temperature	Is there any risk of effecting water temperature? No	Proposed harvest activities will not occur inside interim PACFISH RHCAs. Fire will only be allowed to back into riparian areas. The burn within riparian areas will be implemented to maintain shade trees so no loss of shade or increase in stream temperatures is expected.
	Sediment and Substrate	Will the project contribute to the introduction of sediments into streamcourses? No	<p>Burning in riparian areas would be done under controlled conditions, following project design criteria, and only allowed to back into RHCAs. Vegetation loss near streams is unlikely. No mechanical or hand thinning would occur in RHCAs. Burn intensities would be expected to be low and localized, and re-sprouting of vegetation could occur within two weeks of soil exposure (Agee 1993). Based on slope distances the potential for sediment to reach channels is very low, near zero.</p> <p>Road maintenance would occur on 79 miles of system roads used by timber sales and would include blading, ditch relief culvert cleanout, and ditch cleanout as needed on portions. Culvert cleanout and necessary ditch cleanout would lead to immediate reductions in risk from the road system. Effects from ditch cleanout would localized and be short term, less than one year. One culvert on an intermittent channel would be replaced during the dry season. Due to distance from perennial streams, topography and in-channel habitat complexity the probability any sediment from road maintenance activities would be transported to listed fish is very low and would not be detectable.</p>
	Chemical Containments/nutrients	Will the project increase nutrients or introduce chemical contaminants to streamcourses? No	No activities will occur that will introduce chemical contaminants to any stream courses. No lighting will occur in RHCAs.
Barriers		Will the project result in any impediment to movement of any life stage of fish? No	This project will not create nor remove barriers to ESA listed fish and their critical habitat.

Habitat Elements	Large Wood	Will the project reduce the amount of large wood within stream courses? No	Proposed harvest activities will not occur inside interim PACFISH RHCAs. No large wood will be removed from any stream or removed from the RHCA as a result of this project.
	Pools	Will the project adversely affect pool frequency in any stream course? No	No effects to pool frequency are expected as a result of this project. No in-stream work will occur.
Channel Conditions and Dynamics	Wetted Width/Depth Ratio	Will the project affect the wetted width/depth ratio? No	No effects to width/depth ratios are expected as a result of this project. No changes in stream banks will occur as a result of this project.
	Streambank Condition	Will the project result in decreasing streambank stability or artificially raising or lowering natural water levels? No	Stream banks will not be disturbed as part of this project. Effects of proposed harvest and landscape burning are below levels to affect or change capture, storage and release of water.
Flow /Hydrology	Changes in Peak/Base Flow	Will the project result in detectable changes in peak or base flows? No	Peterson (July 2009) modeled potential stream flow changes as Equivalent Treatment Acres (ETA) for all proposed projects in the South George project area. This model included both effects of prescribed fire and timber harvest. Peterson found that prescribed fire and timber harvest together would not produce detectable changes in flows. (ETA's total <15% for all subwatersheds.) Effects of proposed harvest and landscape burning are below levels to affect or change capture, storage and release of water.
	Drainage Network Increase	Will the project increase the drainage network? No	One undersized culvert on an intermittent stream will be removed, the channel recontoured, and replaced with a rocked ford. No other changes to road/stream crossings will occur as part of the timber and fuels treatment project components. Three miles of temporary road, located upslope of stream channels, on flat ground and with no hydrologic connection, would be constructed as part of the timber sale portion of the project, and then decommissioned when the project is complete.

Watershed Condition	Cumulative Effects to Watershed Condition	<p>Are there any baseline indicators for this watershed that, are rated Functioning at Unacceptable Risk, and will this project affect those indicators?</p> <p>Yes. As described in Watershed Analysis and other basin analysis (on file at Pomeroy Ranger District) areas within the National Forest boundary are in good condition and rated as Properly Functioning. Downstream, off-Forest, there are numerous problems. There are no adverse effects, either short-term or long-term predicted on National Forest lands.</p>	<p>Off Forest habitat has been identified as “functioning at unacceptable risk” For example: Temperature, Substrate Embeddedness, Pool Frequency, Road Density, and Riparian Conservation Areas in downstream subwatersheds are/were functioning at unacceptable risk outside National Forest lands. Restoration projects are alleviating some of these problems.</p> <p>No activities will occur with this project that will affect these indicators and proper functioning channels on the Forest will remain at “Functioning Appropriately”. Short term effects of the project at the Forest/Action area boundary downstream are negligible.</p>
	Disturbance History	<p>Does the project occur within a subwatershed that has baseline indicator for Disturbance History rated Functioning Appropriately? No... If so, will the project change the indicator? N/A... Does it require an ACOE 404 permit (no), result in take (no), or are short-term effects negligible? Yes.</p>	<p>This project will not change the disturbance history indicator and it will “not” require an ACOE 404 permit, and will not result in take.</p>
Direct Effects to Individuals	Does the project contain the risk of a “take”? No	<p>There are no ESA species in the project area. Any physical habitat effects downstream are predicted to be negligible.</p>	

DESIGNATED CRITICAL HABITAT:
Primary Constituent Elements (PCEs): Steelhead Critical Habitat

PCE	PCE Habitat Feature	Matrix Pathway	Matrix Indicator	Rationale
(1) Freshwater spawning sites with water quantity and quality conditions and substrate supporting spawning, incubation and larval development;	Water Quantity	Flow/Hydrology	Changes in Peak/Base Flows	The intent of the underburn is to remove dead and downed fuels not live trees. There should be no detectable changes in peak or base flows as a result of this project. There will no harvest entry into RHCAs. Peterson (2009) modeled changes in flow from proposed activities, and predicted no detectable change in flow.
			Increase in Drainage Network	Three miles of temporary roads will be constructed as a part of this project. The roads are located on flat ground, with no hydrologic connection to stream channels, and there will be no increase in the drainage network.
	Water Quality	Flow/Hydrology	Temperature	Fire will only be allowed to back into riparian areas. The burn within riparian areas will be done in a way to maintain shade trees so no loss of shade or increase in stream temperatures is expected.
			Sediment/Turbidity	Burning in riparian areas would be done under controlled conditions and only allowed to back into RHCAs so vegetation loss near streams is unlikely. Burn intensities would be expected to be low and localized, and re-sprouting of vegetation could occur within two weeks of soil exposure (Agee 1993). Project design criteria were established to control sediment and based on slope distances the potential for sediment to reach channels is very low, near zero.
			Chemical Contamination/ Nutrients	No activities will occur that may lead to chemical contaminants entering streams. No lighting will occur in RHCAs.

PCE	PCE Habitat Feature	Matrix Pathway	Matrix Indicator	Rationale
	Suitable Substrate	Habitat Elements	Substrate Embeddedness	Project design criteria were established to control any fire creep into RHCAs and potential soil exposure. As a result there is not expected to be a measurable increase in sedimentation. There will be no change to substrate embeddedness.
<p>(2) Freshwater rearing sites with:</p> <ul style="list-style-type: none"> (i) Water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility; (ii) Water quality and forage supporting juvenile development; and (iii) Natural cover such as shade, submerged and overhanging large wood, log jams and beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks 	Water Quantity	Flow/Hydrology	Changes in Peak/Base Flows	The intent of the underburn is to remove dead and downed fuels not live trees. Effects of proposed harvest and landscape burning are below levels to affect or change capture, storage and release of water. There should be no detectable changes in peak or base flows as a result of this project.
			Increase in Drainage Network	Three miles of temporary roads will be constructed as a part of this project. The roads are located on relatively flat ground, with no hydrologic connection to stream channels, so there will be no increase in the drainage network.
	Water Quality	Water Quality	Temperature	Fire will only be allowed to back into riparian areas. The burn within riparian areas will be done in a way to maintain shade trees so no loss of shade or increase in stream temperatures is expected.
			Sediment/Turbidity	Burning in riparian areas would be done under controlled conditions and only allowed to back into RHCAs so vegetation loss near streams is unlikely. Burn intensities would be expected to be low and localized, and re-sprouting of vegetation could occur within two weeks of soil exposure (Agee 1993). Project design criteria were established to control sediment and based on slope distances the potential for sediment to reach channels is very low, near zero.
			Chemical Contamination/Nutrients	No activities will occur that may lead to chemical contaminants entering the creeks. No lighting will occur in RHCAs.

PCE	PCE Habitat Feature	Matrix Pathway	Matrix Indicator	Rationale
	Floodplain Connectivity	Channel Condition and Dynamics	Floodplain Connectivity	There is no causal mechanism to affect floodplain connectivity with this project. No changes in stream banks will occur.
	Forage	Habitat Elements	Substrate Embeddedness	Project design criteria were established to control any fire creep into RHCAs and potential soil exposure. As a result there is not expected to be a measurable increase in sedimentation. There will be no change to substrate embeddedness.
			Large Woody Debris	Proposed harvest activities will not occur inside interim PACFISH RHCAs. No large wood will be removed from any stream or removed from the RHCA as a result of this project.
			Pool Frequency	No effects to pool frequency are expected as a result of this project. No in-stream work will occur.
			Pool Quality	No effects to pool quality are expected as a result of this project. No in-stream work will occur. There is a very low probability of sediment entering streams, and any sediment reaching streams would no affect pool quality.
			Off-Channel Habitat	No effects to off-channel habitat are expected as a result of this project.
			Refugia	No effects to refugia are expected as a result of this project.
			Watershed Condition	Riparian Reserves
	Natural Cover	Habitat Elements	Substrate	No in-stream work will occur as part of this project so there will be no direct effect to substrate.
			Large Woody Debris	No large wood will be removed from any stream as a result of this project.
			Pool Frequency	No effects to pool frequency are expected as a result of this project.

PCE	PCE Habitat Feature	Matrix Pathway	Matrix Indicator	Rationale
			Pool Quality	No effects to pool quality are expected as a result of this project. See above rationale on sediment/turbidity.
			Off-Channel Habitat	No effects to off-channel habitat are expected as a result of this project.
			Refugia	No effects to refugia are expected as a result of this project.
		Watershed Condition	Riparian Reserves	Burning in riparian areas would be done under controlled conditions and only allowed to back into RHCAs so vegetation loss and soil exposure near streams is unlikely. This will result in little change to the riparian reserves.
(3) Freshwater migration corridors free of obstruction and excessive predation with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival;	Migration Corridors Free of Obstruction	Habitat Access	Physical Barriers	No migration barriers will be created or removed as part of this project.

Agee, J. K. 1993. *Fire Ecology of Pacific Northwest Forests*. Washington, D.C.: Island Press.

Peterson, S. 2009. *South George Hydrologist Report*. On file at Pomeroy Ranger District, Pomeroy, Washington

Project Title: Asotin Creek Riparian Vegetation Treatment (controlled burning) – ARBO category 13

Project Leader: Del Groat (Fish Biologist), assisted by Tara Hanger (Fuels Planner), Su Meredith (Silviculturist)

Phone: 509-843-4639
dgroat@fs.fed.us

Location of Project Area:

The project area is 24 acres in an unnamed tributary in Upper George Creek of Asotin Creek (HUC 170601030206), located at the Umatilla National Forest boundary

Proposed Date for Implementation: Spring 2012

Project Description: The objective of the proposed project is to reduce crown fire initiation, disrupt crown fire continuity, and use prescribed fire to reduce existing and created ground material. As described during monitoring of the nearby School Fire of 2005, dry forest RHCA's provided corridors for wildfire to spread across the landscape (Tara Hanger, personal communication 2005). The goal of this project is to reduce probability of crown fire initiation by treating ladder fuels, and to reduce crown fire spread by using treatments to disrupt canopy continuity in dry forest RHCAs.

Historical fire suppression created an absence of fire in dry forest, and allowed shade tolerant understory trees to establish. The result is a change in forest plant composition in the Asotin watershed. In addition, fire return intervals and severity has changed from frequent low intensity fires to infrequent, high intensity wildfires.

Benefits include maintenance of large wood to streams and reduced potential of catastrophic fire. The treatment should maintain the function of the riparian area. Objectives include restoration of desired levels of stream shade, bank stability, soil erosion and stream turbidity, stream nutrients, and large wood inputs.

The project is designed to comply with the Endangered Species Act-Section 7 Programmatic Consultation Biological and Conference Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation: Fish Habitat Restoration Activities in Oregon and Washington, CY2007-CY2012, by National Marine Fisheries Service, Northwest Region, re-issued June 27, 2008 (FS 2008/03505).

Extent: Approximately 24 acres of RHCA would be treated and restored.

Species Affected: Snake River steelhead and their critical habitat

Aquatic Restoration BO Project Notification

Project Title: Asotin Creek Road Decommissioning Treatments (Category 17)

Project Leader: Stacia Peterson

Phone: 509-522-6285

speterson@fs.fed.us

Location of Project Area:

The project is located in the headwaters of Asotin Creek (HUC 170601030206)

Timing/Proposed Date for Implementation: Summer 2010 – 2012 (if project extends beyond 2012 then project would be reevaluated and resubmitted for consultation as needed)

Activity Type: #18. Removal of Legacy Structures

Project Description: The objective of this project is to decommission roads in the headwaters of Asotin Creek to restore watershed function. Thirty-one (31) miles of system road decommissioning is proposed, and an additional 15.5 miles of unauthorized non-system roads and ATV trails (pioneered by Forest users) would also be decommissioned. Culverts would be pulled, channels recontoured, ditches blocked, and any other work necessary to disconnect the roads from the hydrologic system would be performed. Roads would be subsoiled and revegetated with native grasses.

The road decommissioning and watershed restoration project will implement the design criteria described in the Aquatic Restoration Biological Opinion (Fish Habitat Restoration Activities in Oregon and Washington, CY2007-CY2012, by National Marine Fisheries Service, Northwest Region, June 27, 2008), category 17.

Extent: Approximately 131 acres of system road beds would be rehabilitated.

Species Affected: Snake River steelhead and their critical habitat