Forest Aquatic Restoration Project
NEPA Compliance and Implementation Checklist

Project Number: _____ **Date: 21 March 2016**

Category: Category 2: Large Wood, Boulder, and Gravel Placement

Category 13: Riparian Vegetation Treatment

Location: See Attached

Project Description: Felling of conifers up to 21"DBH in and around aspen stands, using fallen material for stream restoration on and off site, and for fencing material to protect aspen stands.

Heritage

☒ - Specific PDC for Heritage addressed (Heritage Surveys; Avoidance areas).

Botany

☒ - Specific PDC for Botany addressed (Sensitive Plant Surveys).

☒ - Specific PDC for Nox. Weeds addressed.

Land Management Consistency

☐ 4A	Big Game Winter range	☐ 9	Research Natural Areas
☐ 6A & 6B	Wilderness	☐ 10	Semi-Primitive Non-Motorized Recreation Areas
☐ 7	Scenic Area	☐ 22	Wild and Scenic River
☐ 8	Special Interest Areas	☐	Inventoried Roadless Areas

Comments: _____

Table 1. Projects Design Criteria and Forest Plan compliance checklist.

I have reviewed this project and have determined it is within the Project Design Criteria identified for my resource.			
Resource	Signature	Date	Comments
Heritage		4/4/2016	NO GROUND DISTURBING ACTIVITIES ARE TO OCCUR UNTIL SHPO CONCURRENCE IS RECEIVED.
Botany		4/13/2016	Assure that Nox. Weeds PDCs are followed
Wildlife		4/19/2016	
Fish*		4/7/2016	
Hydrology*		4/6/2016	
Range		4/14/16	If fence need to coordinate
Soils		3/23/16	Beneficial, follow established PDCs
Recreation	Shannon Wiegar	4.4.16	No effect to the resources in Recreation/Visuals
Lands and Special		4.7.16	No lands SUPs or mining claims identified w/in project areas See attached for Public Resource Protection.
Engineering		3/23/16	Notify Eng if tree falling or transportation of log effect Roads.
Fuels / Fire		4/1/16	See email 4/1/16.
Silviculture		4/18/16	as BMPs allow

* Ensure that an experienced fisheries biologist or hydrologist is involved in the design of all projects covered by Aquatic Restoration Biological Opinion II. The experience should be commensurate with technical requirements of a project.

Line Officer Signature: _____

Date: 4-26-16

Desired Condition:

The desired conditions for Summit Creek and associated tributaries include:

- A riparian area with vigorous and abundant hardwood communities (including a diversity of willows, dogwoods, aspen, cottonwood, and/or alder) to provide forage and habitat for a variety of wildlife species, to increase shade, bank stabilization, and habitat complexity within the stream, and to deliver leafy material to the stream to support aquatic food webs. The floodplain would also contain a variety of hydric graminoids (sedges, rushes, grasses, etc.) with rooting zones that store water and stabilize the floodplain during high flow events. The width of the desired vegetation corridor would extend to the floodprone width of the floodplain (to the toe slope or base of an abandoned terrace).

- A floodplain with maximum capacity to store water for slow release through the dry season. Water table elevations would approach the ground surface elevation of the floodplain for the majority of the dry season, except at naturally occurring high spots, mounds, and abandoned terraces. Stream channels would have floodplain connectivity during high flows to allow inundation of the floodplain for sediment and nutrient deposition and energy dissipation

- Fish habitat to support all life stages of bull trout (threatened under the ESA [endangered species act]) and increase the competitive advantage of bull trout over invasive brook trout. The stream channel along Summit Creek would be a Rosgen C or E type channel with deep pools and channel complexity (containing wood, shrub roots, undercut banks, etc.) for hiding cover. Water quality would be high; the channel would be shaded by shrubs, stream temperatures would be suitable for bull trout spawning and rearing (9 ºC), and fine sediment would be stored on the channel margin and outside of sensitive spawning areas. Spawning gravels would abundant and channels would have low width /depth ratios (below 10; USDA Forest Service, 1990).

Implementation Plan:

To attain the desired conditions, the USFS is proposing the following actions:

Channel, floodplain, and riparian restoration in the project area would include the following activities:

- Felling and tipping– The goal of this action is to remove/reduce trees that have encroached onto the floodplain in the absence of wildfire and utilize a local source for in-stream wood. The encroachment of conifers have contributed to a de-watered floodplain and incised channel. Conifers of any size located on the floodplain would be felled and left on the floodplain or added to the channel. Trees located on the floodplain or from the nearby hillslope on either side of the stream would be utilized. This activity would occur through a combination of heavy equipment and hand-falling with a chainsaw. Larger trees would be tipped and smaller trees may be tipped or felled. Both sizes would be carried or dragged to the channel or floodplain using a skidder or excavator.

- Prescribed burning – In order to stimulate natural aspen and other hardwood regeneration, as well as reducing conifer shading and sapling competition, a moderate severity burn of the stand will be initiated the following season.

- Large wood augmentation- the tipped/felled small and large wood (from *felling and tipping* above) would be placed into the channel and onto the floodplain. The majority of materials will be sourced locally, from the floodplain, but we may have to acquire materials from other locations. Wood would be placed into the channel as complex wood structures (assemblage of small and/or large wood) or individual pieces to dissipate energy and capture sediment (**Error! Reference source not found.**). Large structures would be created just downstream of the Little Logan Creek/Summit Creek and Conroy Creek/Summit Creek junctions to simulate the natural recruitment of wood jams at tributary junctions and to tie into the geomorphic pinch points at those locations. Smaller wood structures and individual pieces would also be created near side channels to encourage connectivity between the mainstem and side channels during high flow events. Structures (of variable sizes) would occur ***up to*** 50 feet apart along the stream channel. Large wood would be placed into the channel and floodplain using heavy equipment (e.g. excavator).

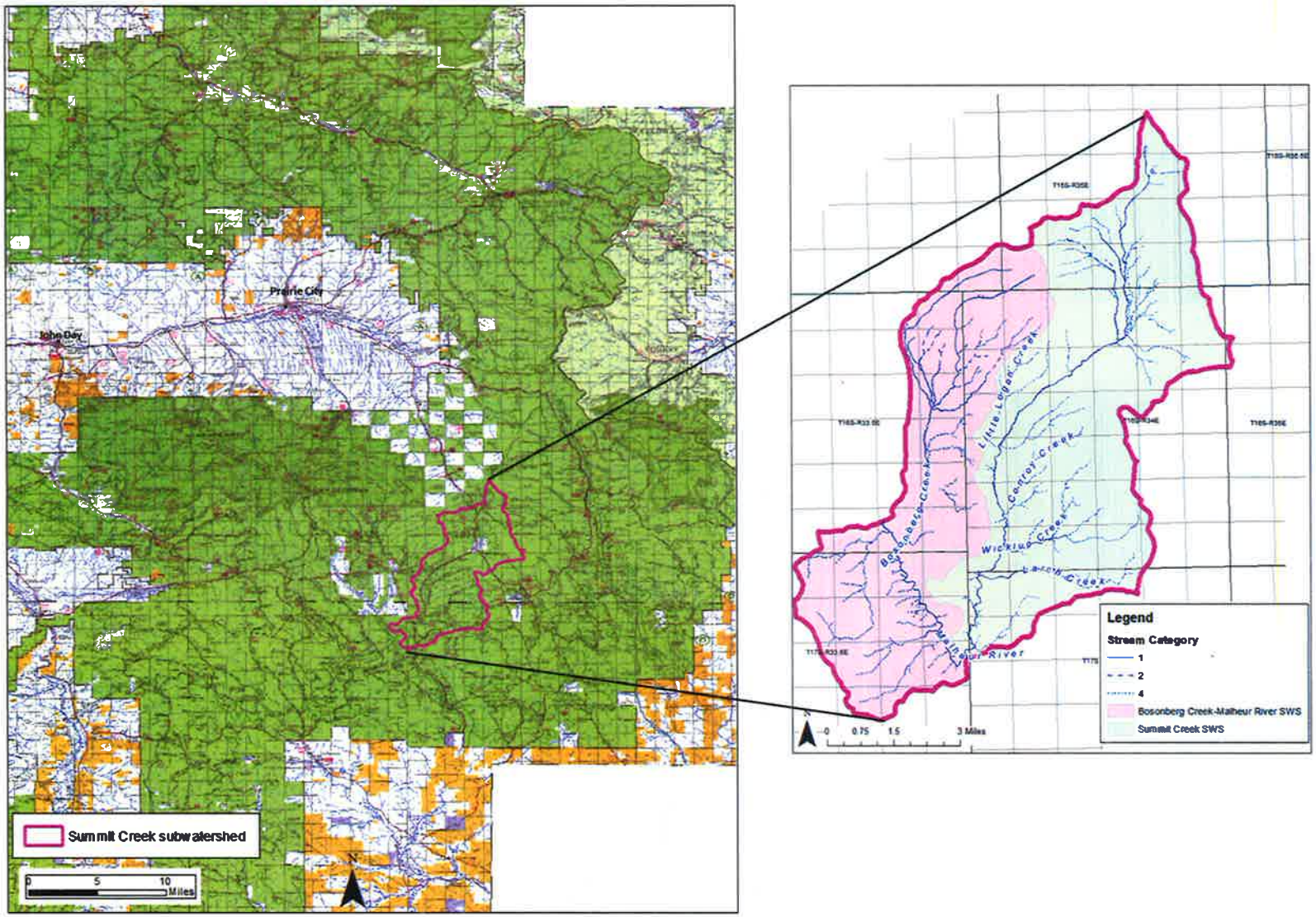

Figure 11. Project location within the Malheur National Forest.

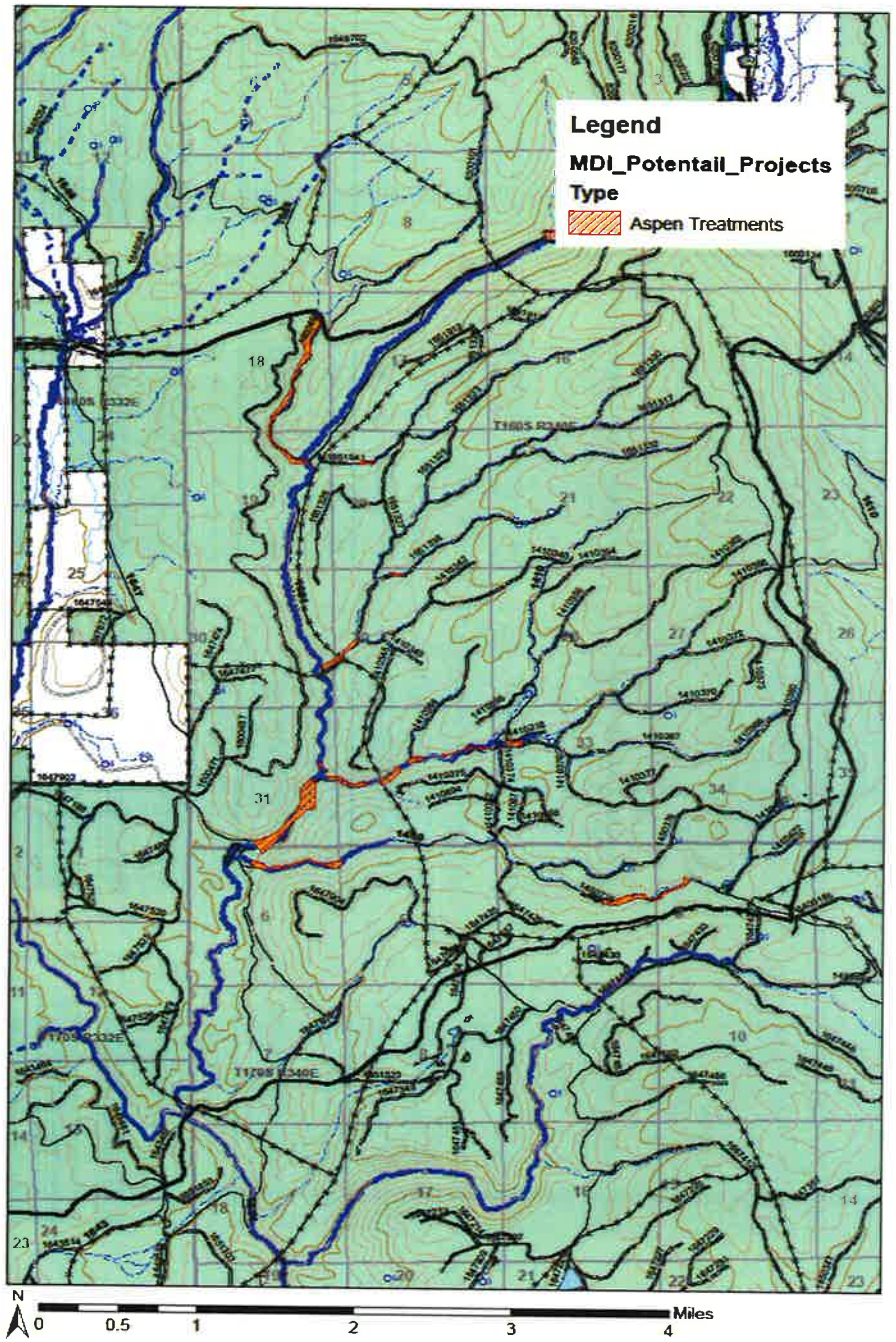

Figure 2. Aspen stand locations

Forest Aquatic Restoration Project
NEPA Compliance and Implementation Checklist

Project Number: _____ **Date: 21 March 2016**

Category: Category 2: Large Wood, Boulder, and Gravel Placement

Category 13: Riparian Vegetation Treatment **Location:** _____

Project Description: Felling of conifers up to 21"DBH in and around aspen stands, using fallen material for stream restoration on and off site, and for fencing material to protect aspen stands.

Heritage

☐ - Specific PDC for Heritage addressed (Heritage Surveys; Avoidance areas).

Botany

☒ - Specific PDC for Botany addressed (Sensitive Plant Surveys).

☒ - Specific PDC for Nox. Weeds addressed.

Land Management Consistency

☐4A	Big Game Winter range	☐9	Research Natural Areas
☐6A & 6B	Wilderness	☐10	Semi-Primitive Non-Motorized Recreation Areas
☐7	Scenic Area	☐22	Wild and Scenic River
☐8	Special Interest Areas	☐	Inventoried Roadless Areas

Comments: _____

Table 1. Projects Design Criteria and Forest Plan compliance checklist.

I have reviewed this project and have determined it is within the Project Design Criteria identified for my resource.			
Resource	Signature	Date	Comments
Heritage			
Botany	*/s/ Joe Rausch*	4/13/2016	Long-term beneficial impact to botanical resources. Assure that invasive plant/noxious weeds PDCs are followed.
Wildlife			
Fish*			
Hydrology*			
Range			
Soils			
Recreation			
Lands and Special			
Engineering			
Fuels / Fire			
Silviculture			

* Ensure that an experienced fisheries biologist or hydrologist is involved in the design of all projects covered by Aquatic Restoration Biological Opinion II. The experience should be commensurate with technical requirements of a project.

Mule Deer Initiative Summit Aspen Restoration – Paleontological Resource Review 4/7/2016

Paleontological Resources

Project locations are within areas where paleontological fossil occurrence is likely or unknown. If during project activities paleontological resources are encountered all activities shall cease immediately and the Malheur NF Minerals Program Manger shall be contacted for the evaluation of the discovery. Please see the attached *Paleontological Resources Likelihood of Occurrence: Malheur NF* map (2015) and Paleontology brochure FS-1058.