

Wallowa Whitman Forest Collaborative: Project Outcome Monitoring for Lower Joseph Creek Project

Monitoring Question	Indicators	Duration	Resources (required/available)	Follow up	Notes
1. What are the project's effects on local economies ?	Employment for local individual and businesses	ST, MT	State of Oregon, Oregon State University, Ecosystem Workforce Program at University of Oregon, and Wallowa Resources collect this data. No WWFC resources required.	Contact Eric White, EJ Davis, and Cass Moseley to confirm data availability for Lower Joseph Creek. Contact Eric White and Thomas Maness regarding interest in developing a production possibility frontier.	Wallowa Resources will take the lead in collecting and reporting this information to the WWFC monitoring sub-committee.
	Merchantable wood supply to local wood products processing facilities	ST			
	Contracting mechanism used and dollars contributed to local counties	ST			
	Contractor's county of residence	ST			
2. What are the project's effects on wildfire conditions ?	Fire condition class	ST, MT, LT	Use existing protocols to build a menu of items to measure. Some photo series data on fuel loads within the project area already exist. Return to those photo points as appropriate.	Contact Jenny Reinhardt for suite of protocols used in previous projects. Contact Larry Nall regarding photo series.	Funding may be available through Wallowa County NRAC. Contractor required to conduct this work.
	Fire behavior model outputs (flame lengths, crown fire potential, etc.)	ST, MT, LT			
	Fuel loads (ground and ladder)	ST, MT, LT			
3. What are the project's effects on forest structure and composition ?	Species composition	ST, MT, LT	Use existing protocols to build a menu of items to measure.	Contact Jenny Reinhardt for suite of protocols used in previous projects.	Funding may be available through Wallowa County NRAC. Contractor required to conduct this work.
	Stem density or basal area	ST, MT, LT		Identify potential application and cost of Solmetric PV Analyzer (solmetric.com).	
	Cover or canopy closure (collect data w/ shading)	ST, MT, LT	TBD		
	Dead & down wood	ST, MT, LT	Use existing protocols to build a menu of items to measure.	Contact Jenny Reinhardt for suite of protocols used in previous projects.	
	Structural complexity	ST, MT, LT			
4. What are the project's effects on wildlife habitat ?	Threatened and endangered species habitat attributes	ST, MT, LT	TBD	Follow up with Nick Myatt to better understand any data collection efforts in the project area by ODFW.	Sub-committee requested additional information be gathered.
	Management indicator species habitat attributes	ST, MT, LT			
	Habitat attributes for "habitat limited" species	ST, MT, LT			
5. What are the project's effects on aquatic conditions ?	Shading (collect data w/ canopy cover)	MT or LT	There are eleven existing MIMs sites within the project boundary. Each site covers ten different protocols and will be monitored again in the next 5-10 years. Resource requirements are low.	Contact Brian Spradlin and Michael Brown to learn more about the monitoring included in the implementation plan for Lower Joseph Creek. Identify who is conducting implementation monitoring for USFS.	Baseline data collected for Lower Joseph Creek environmental analysis.
	Water temperature	MT or LT			
	Stream bank stability or erosion	MT or LT			
	Sedimentation, especially during pulse events	ST, MT, LT			
	Key aquatic habitat elements (e.g. large woody debris, pools, cover)	ST, MT, LT			
	Aquatic habitat connectivity	MT or LT			
6. What are the project's effects on domestic and wild ungulate activity ?	Ungulate sign (deer, elk, cattle)	ST, LT	Trail cams at treatment sites including riparian areas that will be treated.	Identify photo points and take photos/video prior to project implementation.	Combine data collection efforts with monitoring questions number two and three. Need to establish digital data base to store photos.
	Forage and undergrowth (commercial and non-commercial sites)	ST, MT, LT	Photo points, photo/video on a stick		
7. What are the project's effects on water retention ?	Snowpack retention	ST, MT, LT	TBD	Identify potential application and cost of Solmetric PV Analyzer (solmetric.com).	Measure in concert with canopy closure and shading.
	Soil water storage	LT	High resource requirements	Contact Gordon Grant and John Laurence about interest in designing a research project	WWFC will not monitor this indicators due to cost. The question is better answered through research.
	Pools, stream channel morphology	LT	There is one existing stream gauge in Lower Joseph Creek. Monitoring could occur where a culturt is replaced or if a tree or woody debris is placed in-stream.	Contact Dana Nave about potential protocols and cost to contract this work.	
8. What are the project's effects on soils ?	Stability/erosion	ST, LT (depending on results of ST)	Potential opportunity to collect data in cooperation with USFS as part of implementation plan. Pre-implementation data may need to be collected.	Contact Brian Spradlin and Michael Brown to learn more about the monitoring included in the implementation plan for Lower Joseph Creek.	
	Compaction	ST, LT (depending on results of ST)			
	Coarse woody debris retention (nutrient cycling and long-term productivity)	LT	TBD	None at this time.	
	Fire effects (e.g., organic matter, hydrophobicity)	Monitor post-fire	TBD	None at this time.	Field trip to a burned areas where a treatment was conducted
9. What are the project's effects on public access ?	Trails (open, closed, etc.)	ST	Limited resources required.	Create a "check box" to be included in the project outcome monitoring plan.	USFS is likely to have this data following signed ROD and then following project implementation
	Roads (open, closed, motorized, non-motorized, etc.)	ST			

10. What are the project's effects on public use ?	Non-timber forest products utilization	ST, MT, LT	Utilize existing USFS data		The sub-committee expressed interest in understanding if the project has a positive, negative, or no effect on public use
	Recreation use	ST, MT, LT	Utilize existing USFS and OSURural Explorer data		