Appendix G – USFS Project Lists for Trout and Trapper Creeks

This list is based on projects identified through restoration planning efforts by the US Forest Service for the Trout and Trapper Creek basins within the Wind River Watershed (USFS 2015). These project lists will be updated as new restoration needs are identified and projects are completed, and the project sequencing and timing of implementation will be determined as funding and partnership opportunities arise.

References

Unites States Forest Service (USFS). 2015. Watershed Condition Framework. FY 2016 Watershed Restoration Action Plan. Subwatersheds Trout Creek and Trapper Creek. USFS Pacific Northwest Region – Gifford Pinchot National Forest, Mt. Adams Ranger District.

Table 1. List of essential projects for Trout Creek subwatershed.

Project Name	Project Description	Watershed Condition Indicator Addressed	Recovery Plan Habitat Measure Addressed (LCFRB 2010)	Location, River Mile (RM)	Proposed Timeline* and Projected Target	Total Cost (estimated) and funding source**	Species Addressed
Hemlock Tree Planting Project	Interplant trees in riparian areas on Lower Trout Creek	Native species, invasives, stream shade	Restore riparian conditions	Hemlock Restoration Site, Trout Creek (RM 2.0)	2016-17	\$6,000 NFVW	Lower Columbia River (LCR) steelhead trout, rainbow trout, sculpin species
Lower Trout Creek Habitat Improvement Project	Construct large wood complexes along stream and floodplain, manipulate large instream boulders, reopen and reconstruct relict side-channels, remove concrete and steel structures remaining in Trout Creek associated with past water systems	Large woody debris, streambank stability, channel geometry	Restore floodplain function and channel migration processes. Restore channel structure and stability	Trout Creek (RM 2.0 - 4.0)	2016-2018 Target: 2 miles instream restoration	\$176,000 NFWF	LCR steelhead trout, rainbow trout, sculpin species, endemic amphibian species, wood duck, Coldwater Corydalis plant
Lower Trout Creek Wetland Enhancement Project	Enhance wetland habitat by controlling invasive weeds, planting natives, and restoring drainage patterns	Riparian vegetation condition, floodplain connectivity, native species, invasives	Restore riparian conditions	Trout Creek (RM 2.0 and 3.1)	2017-2019 Target: 4.0 acres wetland improved	\$54,000 NFVW	LCR steelhead trout, rainbow trout, sculpin species, American beaver, elk, deer
Trout Creek and Tributaries Riparian Enhancement and Invasives Control Project	Underplant riparian forest, control weeds along streams and riparian areas	Riparian vegetation condition, native species, invasives	Restore riparian conditions	Trout Creek (RM 2.0) and (RM 8.0 – 9.0) Layout Creek (RM 0.0 -2.6) Compass Creek (RM 0.0 – 1.0) Crater Creek (RM 0.0 – 1.5)	2017-2020 (requires sustained work on an annual basis) Target: 150 acres riparian forest improved / invasives treated	\$45,000 NFVW	LCR steelhead trout, American beaver, elk, deer
Martha Creek Wetland Enhancement Project	Enhance wetland habitat by controlling invasive weeds, planting natives, and restoring drainage patterns	Riparian vegetation condition, floodplain connectivity, native species, invasives	Restore riparian conditions	Martha Creek (RM 1.0)	2017-2019 Target: 2.0 acres wetland improved	\$18,000 NFVW	LCR steelhead trout, American beaver, elk, deer

Project Name	Project Description	Watershed Condition Indicator Addressed	Recovery Plan Habitat Measure Addressed (LCFRB 2010)	Location, River Mile (RM)	Proposed Timeline* and Projected Target	Total Cost (estimated) and funding source**	Species Addressed
Layout Creek Wetland Enhancement Project	Enhance wetland habitat by controlling invasive weeds, planting natives, and restoring drainage patterns	Riparian vegetation condition, floodplain connectivity, native species, invasives	Restore riparian conditions	Layout Creek (RM 2.2)	2017-2019 Target: 1.5 acres wetland improved	\$17,000 NFVW	LCR steelhead trout, American beaver, elk, deer
Upper Trout Creek & Layout Creek Habitat Improvement Project	Supplement existing structures, construct new large wood structures, increase density of large wood	Large woody debris, streambank stability, channel geometry	Restore floodplain function and channel migration processes. Restore channel structure and stability	Trout Creek (RM 7.0 – 9.4) Layout Creek (RM 0 - 2.6)	2017-2020 Target: 5.0 miles stream restored	\$306,000 NFWF	LCR steelhead trout, rainbow trout, sculpin species
Combined with preceding project	Restore channel banks at abandoned ford	Stream-bank stability, channel geometry	Restore channel structure and stability	Layout Creek (RM 2.2)	2017-2020 Target: 0.1 mile instream restoration	(combined with previous project) NFWF	Same as preceding project
Compass, Crater, and Pass Creeks Habitat Improvement Project	Construct log complexes in gullied channel segments to improve aquatic habitat and habitat for Corydalis, a rare plant	Large woody debris, streambank stability, channel geometry	Restore floodplain function and channel migration processes. Restore channel structure and stability.	Compass Creek (RM 0.0 - 1.0); Crater Creek (RM 0.0 - 1.5); Pass Creek (RM 0.0-1.5)	2017-2020 Target: 4.0 miles instream restoration	(combined with previous project) NFWF/VW	LCR steelhead trout, rainbow trout, sculpin species, endemic amphibian species, Coldwater Corydalis plant

Project Name	Project Description	Watershed Condition Indicator Addressed	Recovery Plan Habitat Measure Addressed (LCFRB 2010)	Location, River Mile (RM)	Proposed Timeline* and Projected Target	Total Cost (estimated) and funding source**	Species Addressed
Trout Creek Subwatershed Road Decommissioning Project	Decommission roads and restore appropriate drainage	Habitat fragmentation, road density, drainage density, proximity to streams, soil erosion	Restore degraded hillslopes. Restore channel structure and stability.	FR 42-420 (MP 0.0 – 0.3) FR4309-600 (MP 0.0 - 0.1) FR 33-407 (MP 0.0 - 0.6) FR 33-409 (MP 0.0 - 0.9) FR 33-410 (MP 0.0 - 0.1) FR 33-620 (MP 0.0 - 0.2) FR 33-602 (MP 0.0 - 0.2)	2018-2020 Target: 3 miles road de- commissioned	\$100,000 CMLG	LCR steelhead trout, rainbow trout, sculpin species
Forest Road 4309-415 Fish Passage Project	Upgrade existing culvert	Habitat Fragmentation, Aquatic Organism Passage (AOP)	Address passage issues	Trout Creek tributary at Forest Road 4309-415 (Mile post (MP) MP- 0.8)	2019-2020 Target: 1.0 miles habitat opened	\$81,000 CMLG	LCR steelhead trout, rainbow trout, sculpin species
Forest Road 42 Fish Passage Project	Upgrade existing culvert	Habitat Fragmentation, AOP	Address passage issues	Trout Creek tributary at Forest Road 4200 (MP 4.3)	2019-2020 Target: 1.0 miles habitat opened	\$81,000 CMLG	LCR steelhead trout, rainbow trout, sculpin species

Project Name	Project Description	Watershed Condition Indicator Addressed	Recovery Plan Habitat Measure Addressed (LCFRB 2010)	Location, River Mile (RM)	Proposed Timeline* and Projected Target	Total Cost (estimated) and funding source**	Species Addressed
Brook Trout Removal Project	Non-native fish removal, particularly at small side- channels where brook trout spawn and rear	Ecological interactions, invasives, competition, predation	Address competition and predation issues	Trout, Planting, Martha, Layout, Compass, Crater, Pass, East Fork Creeks	2019-2020 (& annually) Target: 10 miles of instream habitat improved for LCR steelhead by reducing competition with and predation by brook trout	\$32,000 NFWF	LCR steelhead trout, rainbow trout, sculpin species
Nutrient Enhancement Project	Nutrient Enhancement	Survival & Productivity (summer steelhead)	Altered nutrient exchange processes	Trout, Unnamed tributary to Trout, Martha, Planting, Pass, Layout, Compass, Crater Creeks	2019-2020 (& annually) Target: 10 miles of instream habitat improved for LCR steelhead by enhancing instream and riparian nutrient levels	\$42,000 NFWF	LCR steelhead trout, rainbow trout, sculpin species

^{*}Proposed timeline is subject to change based on funding and capacity. **NFVW, NFWF, and CLMG are internal Forest Service funding sources.

Table 2. List of essential projects for Trapper Creek.

Project Name	Project Description	Watershed Condition Indicator Addressed	Recovery Plan Habitat Measure Addressed (LCFRB 2010)	Location, River Mile (RM)	Proposed Timeline* and Projected Target	Total Cost (estimated) and funding source**	Species Addressed
Government Mineral Springs (GMS) Dam Project	Trapper Creek Tributary Dam—Fish Passage Improvement	Habitat Fragmentation Aquatic Organism Passage (AOP)	Address passage issues	No name stream (GMS Dam is located at RM 0.33 of tributary that enters Trapper Creek at RM 1.3)	2016-2017 Target: 0.5 miles habitat opened	\$10,000 NFWF	LCR steelhead trout, rainbow trout, sculpin species
Trapper/Wind Riparian Rehabilitation Project	Obstruct direct vehicular access to Wind River and Trapper Creek at user-built access points, decompact soils, plant, and establish drainage	Riparian vegetation condition, proximity to streams, soil erosion	Restore riparian conditions	Wind River (RM 17.0 – 22.4) Trapper Creek (RM 0.0 - 0.6)	2017-2018 Target: 12 acres riparian forest improved	\$30,000 NFVW	LCR steelhead trout, rainbow trout, mountain whitefish, sculpin species
Trapper Creek Side Channel Activation Project	Activate abandoned side channel—Trapper Creek	Streambank stability, floodplain connectivity	Restore side channel habitat	Trapper Creek side channel at GMS (RM 1.0)	2018-2020 Target: 0.2 miles side channel opened	\$50,000 NFWF	LCR steelhead trout, rainbow trout, sculpin species
Trapper Creek Channel Improvement Project	Remove failing gabion walls, construct fish friendly bank protection	Large woody debris, streambank stability, channel geometry	Restore channel structure and stability.	Trapper Creek in GMS reach (RM 0.5-1.0)	2018-2020 Target: 0.5 miles stream restored	\$60,000 NFWF	LCR steelhead trout, rainbow trout, sculpin species
Wind River Large Wood Supplementation Project	Construct large wood complexes along stream and floodplain	Large woody debris, streambank stability, channel geometry	Restore floodplain function and channel migration processes. Restore channel structure and	Wind River (RM 17.0 – 19.5)	2018-2020 Target: 2.5 miles stream restored	\$320,000 NFWF	LCR steelhead trout, rainbow trout, mountain whitefish, sculpin species

Project Name	Project Description	Watershed Condition Indicator Addressed	Recovery Plan Habitat Measure Addressed (LCFRB 2010)	Location, River Mile (RM)	Proposed Timeline* and Projected Target	Total Cost (estimated) and funding source**	Species Addressed
Ninemile Creek Channel and Riparian Improvement Project	Thin and underplant riparian forest, rehab damaged riparian landings, construct wood complexes, control weeds along Ninemile Creek	Riparian vegetation condition, native species, invasives	Restore riparian conditions	Ninemile Creek (RM 0.0 – 1.5)	2019-2020 Target: 36 acres riparian forest restored	\$100,000 NFVW	LCR steelhead trout, rainbow trout, sculpin species, American beaver, elk, deer
Forest Road (FR) 5401 Fish Passage Project	Upgrade existing culvert	Habitat Fragmentation AOP	Address passage issues	Trapper Creek trib at FR 5401	2019-2020 Target: 1.0 miles habitat opened	\$80,000 CMLG	LCR steelhead trout, rainbow trout, sculpin species
Middle Wind River Road Decommissioning Project	Decommission roads and restore appropriate drainage	Habitat fragmentation, road density, drainage density, proximity to streams, soil erosion	Restore degraded hillslopes. Restore channel structure and stability	FR6063-039 (MP 0.95 - 1.36) FR60-078 (MP 0.0 – 0.61) FR60-088 (MP 0.0 – 0.75) FR60-089 (MP 0.0 – 0.54)	2019-2020 Target: 2.3 miles road decomm.	\$130,000 CMLG	LCR steelhead trout, rainbow trout, mountain whitefish, sculpin species
Wind River Bank Repair Project	Remove steel plate berm along Wind River and replace with fish-friendly bank protection	Large woody debris, streambank stability, channel geometry	Restore channel structure and stability	Wind River (RM 17.3)	2019-2020 Target: 0.1 miles stream restored	\$160,000 NFWF	LCR steelhead trout, rainbow trout, mountain whitefish, sculpin species
Forest Road 64 Fish Passage Project	Replace culvert with bridge	Habitat Fragmentation AOP	Address passage issues	Dry Creek at FR64	2019-2020 Target: 0.75 miles habitat access improved	\$430,000 CMLG	LCR steelhead trout, rainbow trout, mountain whitefish, sculpin species

^{*}Proposed timeline is subject to change based on funding and capacity. **NFVW, NFWF, and CLMG are internal Forest Service funding sources.