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United States Government **Department of Energy**

Bonneville Power Administration

memorandum

DATE: October 22, 2018

REPLY TO ATTN OF: ECF-4

SUBJECT: Supplement Analysis for the Lonerock Ridge Prescribed Juniper Burn

TO: Jesse Wilson
Project Manager – EWL-4

Proposed Action: Lonerock Ridge Prescribed Juniper Burn

Proposed by: Bonneville Power Administration (BPA)

Location: Gilliam County, OR

Project No.: 2007-397-00 / **Contract No.:** 78267

Introduction

In April 2003, Bonneville Power Administration (BPA) completed the Fish and Wildlife Implementation Plan (DOE/EIS-0312) (FWIP). The FWIP analyzed impacts that may arise from implementing any of the fish and wildlife policy directions being considered in the regional processes. The program was instituted as a comprehensive and consistent policy to guide the implementation and funding of the agency's fish and wildlife mitigation and recovery efforts. The FWIP facilitates the environmental review of routine actions with well-understood and predictable environmental impacts common to restoration projects.

Consistent with the FWIP, this supplement analysis (SA) analyzes the proposed Lonerock Ridge Prescribed Juniper Burn (Lonerock Ridge Project) that would restore habitat along the Middle Fork John Day River in Gilliam County, Oregon; especially for Endangered Species Act (ESA)-listed Mid-Columbia River steelhead. The SA was prepared to analyze the site-specific impacts of the proposed Lonerock Ridge project and determine if the project is within the scope of the analysis considered in the FWIP EIS. It also evaluates whether the proposed project represents significant new circumstances or information relevant to environmental concerns. The findings of this supplement analysis determine whether additional NEPA analysis is needed pursuant to 40 Code of Federal Regulations (CFR) §1502.9(c).

Proposed Action

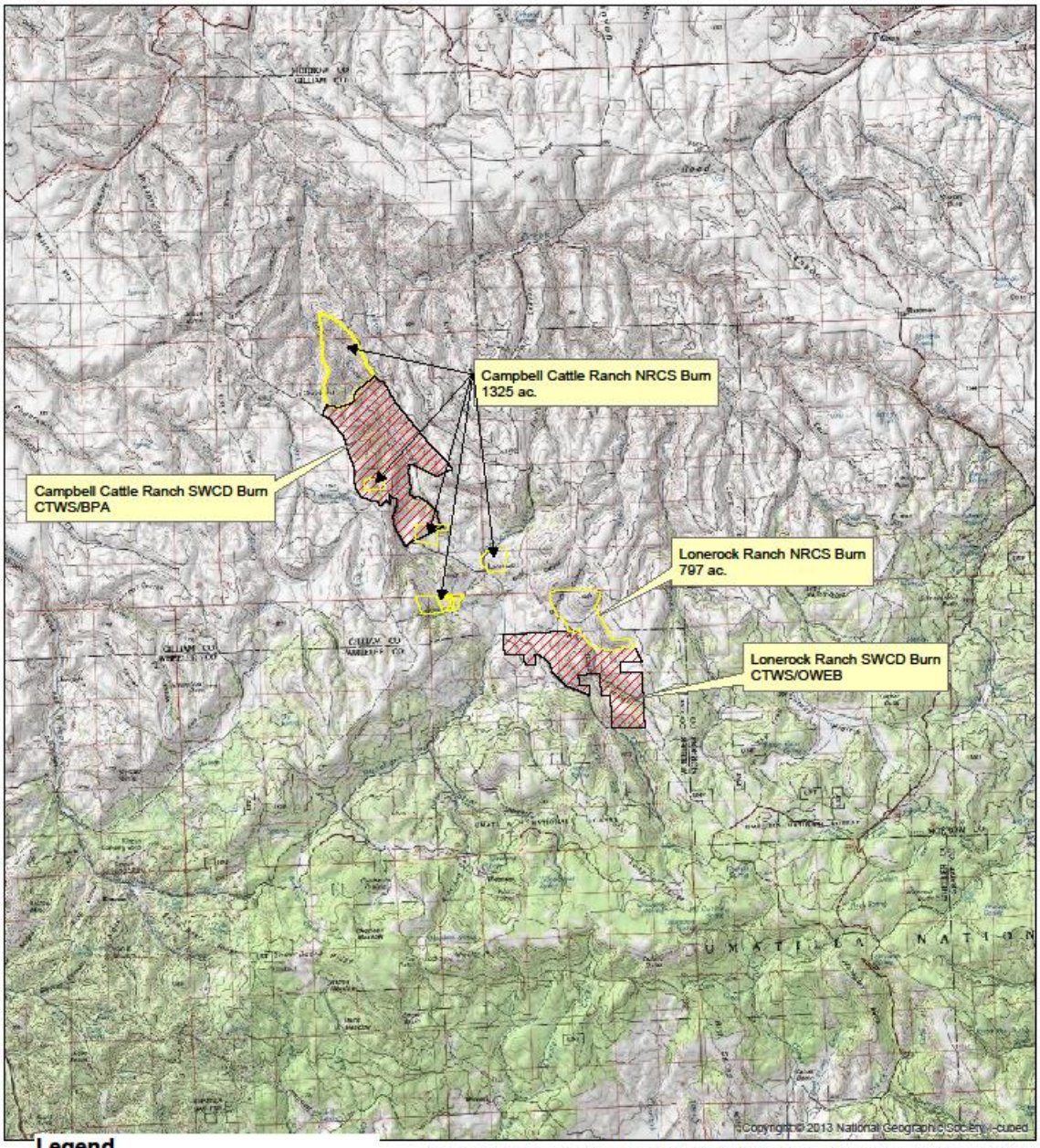
LONEROCK PRESCRIBED BURNS

Date: 1/17/2018

Assisted By: DAMON BROSNAN

Agency: USDA/NRCS

Field Office: CONDON SERVICE CENTER



Legend

- NRCS Planned Burns
- SWCD Planned Burn
- Campbell_Anderson_Harrison Prescribed Burn
- USA Topo Maps

Prepared with assistance from USDA-Natural Resources Conservation Service

USDA

11,000 0 11,000 22,000 33,000 44,000 Feet

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Fig 1. Location of proposed Lonerock Ridge Prescribed Burn Project.

Under the proposal, BPA would fund the Confederated Tribes of the Warms Springs (CTWS) to conduct the Lonerock Ridge project in Upper Lonerock Creek in the southeastern corner of Gilliam County. Lone Rock Creek and its tributaries are suffering from a loss of hydrologic function due to western juniper encroachment. In the absence of a normal fire regime for the past 150 years, the over-proliferation of western juniper in the Lonerock Watershed has resulted in a sustantial loss of native vegetative cover, rangeland health, fish and wildlife habitat, and overall watershed function.

The proposed solution is to strategically and systematically conduct a prescribed landscape burn over approximately 8,588 acres of productive rangeland sites primarily on north- and east-facing slopes with deep soils, which are excellent for producing forage and ground cover essential for fish and wildlife species. The result would be the release of sequestered upland water supplies, restored upland conditions, and a return to dynamic watershed function; including increased instream flows during critical spawning and rearing times. Partners on this project include the Gilliam-East John Day Watershed Council, Gilliam Soil and Water Conservation District (SWCD), Natural Resources Conservation Service (NRCS), and multiple participating private landowners.

NRCS would fund the prescribed burn of 2,188 acres, Oregon Water Resources Enhancement Board would fund 3,200 acres, and BPA would fund an additional 3,200 acres on private lands.

This proposed action would be conducted in accordance to BPA's Habitat Improvement Program (HIP III) programmatic agreement. The burn would be conducted on riparian areas and adjoining uplands to help restore plant species composition and structure that would occur under natural fire regimes. Prescribed burning is the measured application of fire to control invasive woody plants. The technique involves the hand application of fire via drip torches or similar equipment. The conservation measures listed below would be addressed prior to implantation and may be found in the HIP handbook at: https://www.bpa.gov/efw/Analysis/NEPADocuments/Pages/ESA-Process.aspx; additional guidelines on management of western juniper can be found at: http://www.oregon.gov/OWEB/MONITOR/pages/monitor_juniper.aspx.

The following measures will apply:

a) A 15 m (50 feet) vegetative buffer would be maintained adjacent to any fishbearing stream.

b) A burn plan is required, although it may vary by management objectives and site conditions.

c) Firebreaks would be used to prevent fire from spreading outside of the planned burn area. Fire retardant chemicals would be used sparingly and would not be used within 37 m (120 feet) of surface waters.

d) An area 3 to 6 m (10 to 20 feet) wide may also be mowed around the outside boundary of the burn area to help assure fire control.

e) Fire management vehicles would be restricted to adjacent non-native or resilient vegetation except during an emergency, and then for only the duration of the emergency.

The burn plan is currently being developed, but the initial measures include establishing a black line buffer (i.e., a condition where no combustible fuels remain between the fireline and the main fire) to protect the riparian area. The buffer would be created approximately 100 feet out from the riparian area prior to the burn, depending on the terrain. Once the buffer is in place and weather conditions are conducive, the burn would then begin at the buffer with the fire progressing uphill and away from the riparian area.

The goal would be to implement this burn in fall 2018. This would satisfy several objectives. It is outside of the nesting season, and prescribed burns are facilitated by the weather and condition of juniper trees during a typical October. At this time of year, juniper will be drier for hotter, more complete burns of the trees and cold, moist weather conditions help the fire self-extinuguish.

The proposed restoration would improve habitat for ESA-listed Mid-Columbia steelhead (*Oncorhynchus mykiss*), as well as other fish species and wildlife species. The proposed restoration actions are consistent with the actions considered in the FWIP as discussed below.

Public Scoping, Comments, and Responses

Outreach conducted by NRCS included talks with landowners and an article in the Fall 2016 Gilliam Soil and Water Conservation Disctrict and Gilliam East John Day Watershed Council newsletter. See Attachment A.

Environmental Impacts

Below is a description of the potential impacts of the Lonerock Ridge Project and whether they are consistent with the impacts described in the FWIP. Consideration of public safety, air quality, liability, erosion hazard, and site recovery is critical in designing and carrying out prescribed burning projects.

1. **Fish**

The overall effects to fish from the proposed Lonerock Ridge Project would be beneficial. ESA-listed species in the project area may include Chinook, steelhead, and bull trout, as well as non-listed Pacific lamprey. Detrimental impacts, such as increased turbidity from runoff into the water from burned areas would be expected, but would be short term and mitigated by leaving a buffer between the burn and waterways. Beneficial effects to fish, such as enhanced water flow, quality, and quantity, should develop post-burn as more water is available for instream use. Impacts to fish are expected to be low initally and increase to moderate in the long term. As consistent with the FWIP, BPA would use the Habitat Improvement Program III (HIP III) process to provide programmatic ESA coverage for impacts to ESA-listed species for the Lonerock Ridge Project, by communicating the requirements of the HIP III programmatic ESA process, including best management practices and design features. Under the HIP III validation process, this action is considered a LOW risk restoration activity.

These impacts are consistent with the analysis in the FWIP, Volume 1, Section 5.3.2.4, which describes fish impacts expected to be moderate and beneficial; and supported by the following Sample Implementation Actions in Volume 3 of the FWIP:

1. SU 1, pp. 67 "Protect existing high quality habitat and improve degraded habitat. Actions will be judged on their ability to produce fish, reduce conflict, and probability of success versus their cost. Actions that are the least expensive, but do the greatest good will be selected first. Apply management actions in a way that balances wildlife, anadromous and resident fish interests (Framework Concept Paper 20)."
2. SU 1, pp. 67, SU2, pp. 79 "Maintain and restore aquatic and terrestrial habitat quality and quantity to support harvestable plants, fisheries, and aquatic and terrestrial species (ICBSCEIS, B-044)."
3. SU 1, pp. 67 "Maintain and restore instream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected (NW Forest Plan ROD)."
4. SU 1, pp. 69 "Manage vegetation structure, stand density, species composition, patch size, pattern, and fuel loading and distribution to reduce the prevalence of…severe disturbances; and so the landscape succession/disturbance regimes and terrestrial source habitats are resilient to natural disturbances (ICBEMP FEIS)."
5. SU 1, pp 70 “Use fire to restore and/or sustain ecosystem health based on sound scientific principles and information and balanced with other societal goals (ICBEMP FEIS).”
6. SU 1-4, pp. 73 "Restore vegetation patches, patterns, structure, and species composition to be more consistent with the landform, climate, and biological and physical characteristics of the ecosystem, and provide the source of habitat for terrestrial species. Manage disturbances to make vegetation patterns more consistent with their location in the landscape (ICBSDEIS, R-O2)."
7. WS 8-4, pp. 63 "Particularly in weak stock watersheds, restore vegetation patches, patterns, structure, and species composition to be more consistent with the landform, climate, and biological and physical characteristics of the ecosystem, and provide the source of habitat for terrestrial species. Manage disturbances to make vegetation patterns more consistent with their location in the landscape (ICBSDEIS, R-O2.)."

2. **Hydrology and Hydraulics**

The potential impacts to local hydrology and hydraulics from implementing the burn would vary in context and intensity and depend on site-specific conditions, but are expected to return to conditions resembling those existing pre-encroachment. These long-term effects of the burn are expected to increase instream flows and groundwater exchange.

To summarize, impacts associated with depth of water, inundation duration, velocity, and groundwater are low and are consistent with the analysis in the FWIP, Volume 1, Section 5.3.2.3; and supported by the following Sample Implementation Actions in Volume 3 of the FWIP:

1. SU 1, pp. 67 "Maintain and restore instream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected (NW Forest Plan ROD)."
2. SU 1-6, pp. 75 - "Management actions should sustain hydrologic processes characteristic of the geoclimatic settings. Hydrologic processes critical for healthy ecosystems include, but are not limited to, stream flows and sediment in channels (ICBEMP FEIS)."
3. WS 1, pp. 31 "Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted (NW Forest Plan ROD)."
4. NF 1, pp 19 "Establish riparian and upland area conditions that provide the full set of functions needed to maintain water and habitat quality that will support native aquatic species, achieved mainly through natural regenerative processes (Draft All-H paper Dec. 1999)."

3. **Water Quality**

The project would result in overall positive impacts to water quality, including increased composition of native vegetation and vegetation cover, lower water temperatures, increased hypporrheic exchange, and flushing. Impacts associated with activities at the Lonerock Ridge project site could result in increases to localized turbidity but would be short term and limited to the duration of the burn and subsequent site stabilization. As part of the HIP III review process, conservation measures would be implemented to ensure that there is buffer between the burn and Lone Rock Creek to reduce impacts to water quality.As part of the HIP III process, conservation measures would be implemented to ensure that increases in suspected sediment are not exceeding compliance limits.

The impacts associated with the Lonerock Ridge Project are consistent with those described in the FWIP, Volume 1, Section 5.3.2.3; and supported by the following Sample Implementation Actions in Volume 3 of the FWIP:

1. SU 1, pp. 67, SU2, pp. 79 "Maintain and restore aquatic and terrestrial habitat quality and quantity to support harvestable plants, fisheries, and aquatic and terrestrial species (ICBSCEIS, B-044)."
2. SU 1, pp. 67 "Maintain and restore instream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected (NW Forest Plan ROD)."
3. SU 1, pp 70 "Use fire to restore and/or sustain ecosystem health based on sound scientific principles and information and balanced with other societal goals (ICBEMP FEIS)."
4. SU 1-6, pp. 75 - "Management actions should sustain hydrologic processes characteristic of the geoclimatic settings. Hydrologic processes critical for healthy ecosystems include, but are not limited to, stream flows and sediment in channels (ICBEMP FEIS)."
5. WS 1, pp. 31 "Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to

which species, populations and communities are uniquely adapted (NW Forest Plan ROD)."

6. NF 1, pp 19 “Establish riparian and upland area conditions that provide the full set of functions needed to maintain water and habitat quality that will support native aquatic species, achieved mainly through natural regenerative processes (Draft All-H paper Dec. 1999).”
7. NF 1, pp 20 “Restore habitat employing both passive and active techniques, particularly in restoring heavily damaged ecosystems (Comment FWIP-019).”

4. **Geomorphology, Soils and Topography**

Impacts associated with the Lonerock Ridge Project may include a temporary increase in soil erosion due to loss of vegetation cover and light compaction from equipment. These impacts would be short term and mitigated by revegetation the following spring.

The project’s impacts are similar to those described in the FWIP, Volume 1, Section 5.3.2.2 and supported by the following Sample Implementation Action Volume 3 of the FWIP:

1. SU 8-3, pp. 99 "Increase the geographic extent and connectivity of rangeland cover types and structural stages (terrestrial source habitats) that have declined substantially in geographic extent from the historical to the current period (ICBSDEIS, R-O21)."

5. **Air Quality**

Temporary impacts to air quality associated with the Lonerock Ridge Project would result directly from the burn and emissions related to travel to and from the project. Initiating the prescribed burn during the late fall-early winter season (October-January) would help mitigate immediate air quality impacts due to a drier fuel load that would result in hotter, cleaner burns. Cold and moist nights allow for faster extinguishing of the fire. Future impacts to air quality would be mitigated by reducing the wildfire fuel load. The prescribed fire impacts may be low and should not result in long- or short-term violations of State air quality standards.

Project impacts on air quality would be low both in concentration and duration; consistent with the impacts described in the FWIP, Volume 1, Section 5.3.2.1 and supported by the following Sample Implementation Actions in Volume 3 of the FWIP:

1. SU 1, pp 69 “Use prescribed fire to reverse the declining trend in air quality. Rationale: Through prescribed burning, overall air quality can be improved by: (1) moving some of the smoke to spring and fall when fuel and air conditions are cooler and more moist; (2) reducing the size of wildfires; (3) reducing the severity of wildfires; and (4) managing cumulative effects from prescribed fire smoke (ICBEMP FEIS).”
2. SU 1, pp 69 “Decisions on management of wildfires and planned prescribed burns should be considered in the context of potential local and regional impacts on air quality, visibility, and haze, and should include impacts from other sources of particulate matter (ICBEMP FEIS).”

6. **Wildlife**

As described in the 'Fish' section above, BPA's use of the HIP III programmatic provides ESA coverage for potential impacts to any ESA-listed species that may occur within the Lonerock Ridge Project area. Conducting the burn in the late fall would also mitigate impacts to birds as per the Migratory Bird Treaty Act by implementing the project outside of the nesting season. The impacts of the Lonerock Ridge Project would therefore be low on wildife.

The low to moderate impacts of the Lonerock Ridge Project would be consistent with the analysis of wildlife in the FWIP, Section 5.3.2.4 and is supported by the following Sample Implementation Actions in Volume 3:

1. SU 1, pp. 67 "Protect existing high quality habitat and improve degraded habitat. Actions will be judged on their ability to produce fish, reduce conflict, and probability of success versus their cost. Actions that are the least expensive, but do the greatest good will be selected first. Apply management actions in a way that balances wildlife, anadromous and resident fish interests (Framework Concept Paper 20)."
2. SU 1, pp. 67, SU2, pp. 79 "Maintain and restore aquatic and terrestrial habitat quality and quantity to support harvestable plants, fisheries, and aquatic and terrestrial species (ICBSCEIS, B-044)."
3. SU 1-4, pp. 73 "Restore vegetation patches, patterns, structure, and species composition to be more consistent with the landform, climate, and biological and physical characteristics of the ecosystem, and provide the source of habitat for terrestrial species. Manage disturbances to make vegetation patterns more consistent with their location in the landscape (ICBSDEIS, R-O2)."

7. **Wetlands, Floodplains, and Vegetation**

Fire is a natural regime that has been reduced due to human fire control practices. This has resulted in enrcroachment by juniper into areas that were generally free or had low concentrations of the plant. Juniper changes the species compostion of the area by outcompetes other native vegetation for space and water. Conducting the fire in the fall when much of the other native vegetation has completed their annual lifecycle should not impact plants and may have the additional benefit of activating seed banks. The Lonerock Ridge Project would result in low to moderate beneficial impacts to native vegetation, including the conversion of vegetation to include an increased composition of native vegetation.

The impacts to vegetation from this project are in line with the effects discussed in Volume 1, Section 5.3.2.2 of the FWIP, and are intended to be beneficial by design as terrestrial habitat improvement is an intention of the action (see Sample Implementation Actions from Volume 3 listed below). In addition, the project would result in low to moderate beneficial impacts to hyrologic processes which may result in improved wetland habitat.

1. SU 1, pp. 67 "Protect existing high quality habitat and improve degraded habitat. Actions will be judged on their ability to produce fish, reduce conflict, and probability of success versus their cost. Actions that are the least expensive, but do the greatest good will be selected first. Apply management actions in a way that balances wildlife, anadromous and resident fish interests (Framework Concept Paper 20)."

2. SU 1, pp. 67, SU2, pp. 79 "Maintain and restore aquatic and terrestrial habitat quality and quantity to support harvestable plants, fisheries, and aquatic and terrestrial species (ICBSCEIS, B-044)."
3. SU 1, pp. 69 "Manage vegetation structure, stand density, species composition, patch size, pattern, and fuel loading and distribution to reduce the prevalence of…severe disturbances; and so the landscape succession/disturbance regimes and terrestrial source habitats are resilient to natural disturbances (ICBEMP FEIS)."
4. WS 1, pp. 31 "Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted (NW Forest Plan ROD)."
5. NF 1, pp 19 "Establish riparian and upland area conditions that provide the full set of functions needed to maintain water and habitat quality that will support native aquatic species, achieved mainly through natural regenerative processes (Draft All-H paper Dec. 1999)."

8. **Land Use and Recreation**

Impacts on land use and recreation would not occur from the removal of the juniper via prescribed burn. The burns are proposed to be implemented on private lands with landowners' consent. Recreation is not known in these areas and landowners are aware that grazing areas may be impacted.

As a result, the impacts on land use and recreation would be low to moderate, as described in the FWIP, Volume 1, Section 5.3.2.2, and is supported by the following Sample Implementation Actions listed in Volume 3:

1. SU 1, pp 70 "Inform and coordinate with public and private landowners to increase safety in the urban-rural-wildland interface. Work together to reduce risk from natural disturbance by: reducing live and dead fuel loading, ladder fuels, and ignition sources; thinning forests to reduce tree density; creating single story structures; favoring shade-intolerant species; maintaining low risk of crown fires; and using prescribed fire to maintain low fuel levels (ICBEMP FEIS)."
2. NF 1, pp 19 "Maintain habitats by permitting natural forces, including disturbance events such as fire, to continue whenever these processes will contribute to long-term sustainability of habitat (ICBSDEIS, T-O2)."
3. NF 8-4 pp 28 "Allow a more normative fire frequency on private forest lands using incentives and similar means within limits imposed by safety considerations (Draft Framework Alternatives 2, 3; Human Effects Analysis Appendix D)."

9. **Cultural Resources**

The NRCS, on behalf of BPA, as the lead agency for National Historic Preservation Act compliance initiated consultation with the Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tibes of Umatilla Indian Reservation, Burns Paiute Tribe, as well as the Oregon State Historic Preservation Office (SHPO case #18-0840). On July 19, 2018, Oregon State Historic Preservation Office provided concurrence with NRCS' determination of *No Effect* on cultural resources. No known sites would be impacted and

potential impacts to unknown sites that could be discovered during construction would be mitigated through the use of monitors and protocols for handling such discoveries, and additional mitigation measures may be developed during the consultation process.

Cultural resource impacts of the Lonerock Ridge project would be consistent with the analysis in the FWIP, Voume 1, Section 5.3.3.4 as no known sites would be impacted and potential impacts to unknown sites that could be discovered during construction would be mitigated through the use of protocols for handling such discoveries. This is supported by the following Sample Implementation Action listed in Volume 3:

1. PPP 1-6, pp 127 "Inform, coordinate with, and cooperate with affected partners when planning and implementing watershedscale wildland fires across administrative boundaries to manage fuels, restore or maintain ecosystems, and obtain desired distribution of vegetation patches and patterns (ICBEMP FEIS)."

10. **Socioeconomics**

This CTWS and NRCS worked with the landowners to achieve shared habitat objectives. Small beneficial impacts would occur associated with the increased grazing opportunity, as well as long-term benefits associated with improvement of fish runs and natural scenery. The expected socioeconomic impacts would be low to moderate consistent with the FWIP, Volume 1, Section 5.3.3.1, and is supported by the following Sample Implementation Actions listed in Volume 3:

1. SU 1, pp 70 "Inform and coordinate with public and private landowners to increase safety in the urban-rural-wildland interface. Work together to reduce risk from natural disturbance by: reducing live and dead fuel loading, ladder fuels, and ignition sources; thinning forests to reduce tree density; creating single story structures; favoring shade-intolerant species; maintaining low risk of crown fires; and using prescribed fire to maintain low fuel levels (ICBEMP FEIS)."
2. PPP 1-6, pp 127 "Inform, coordinate with, and cooperate with affected partners when planning and implementing watershedscale wildland fires across administrative boundaries to manage fuels, restore or maintain ecosystems, and obtain desired distribution of vegetation patches and patterns (ICBEMP FEIS)."
3. NF 8-4 pp 28 "Allow a more normative fire frequency on private forest lands using incentives and similar means within limits imposed by safety considerations (Draft Framework Alternatives 2, 3; Human Effects Analysis Appendix D)."

11. **Visual Resources**

The burn may impact visual resources in two ways. Initially, the smoke is expected to be visible during the burn and afterwards the blackened soil and burnt tress would be visible. However, the burn is remote, located partially on private lands, and not in a viewshed. Additionally, the smoke is expected to be short-lived and lighter than unmanaged burns, and blackened soils would recover with spring growth, although burned trees may be visible for years. This alteration of the physical landscape through the removal of juniper would also shift the character of the site from a somewhat forested landscape to low-growing shrubs, resulting in low impacts to visual resources, which is consistent with the visual resources analysis in the FWIP, Volume 1, Section 5.3.3.4, and is supported by the following Sample Implementation Actions listed in Volume 3:

1. SU 1, pp 70 “Inform and coordinate with public and private landowners to increase safety in the urban-rural-wildland interface. Work together to reduce risk from natural disturbance by: reducing live and dead fuel loading, ladder fuels, and ignition sources; thinning forests to reduce tree density; creating single story structures; favoring shade-intolerant species; maintaining low risk of crown fires; and using prescribed fire to maintain low fuel levels (ICBEMP FEIS).”
2. SU 1-4, pp. 73 "Restore vegetation patches, patterns, structure, and species composition to be more consistent with the landform, climate, and biological and physical characteristics of the ecosystem, and provide the source of habitat for terrestrial species. Manage disturbances to make vegetation patterns more consistent with their location in the landscape (ICBSDEIS, R-O2)."

12. **Noise, Hazardous Waste, and Public Health and Safety**

The Lonerock Ridge Project would result in minimal noise and hazardous waste impacts related to the burn. Potential public health and safety risks could be associated with increased pollution due to the smoke and the potential for the fire to escape control. Burning in the fall when the fuel is drier and the air is cooler would result in a faster and cleaner burn, and colder moister weather conditions, use of firebreaks, and fire equipment to keep the fire in the desired areas reduces associated adverse impacts. The controlled burn also removes fuel load from future wildfires. Additionally, this project is in a remote area so there are not expected to be any members of the public in the general area.

This is consistent with the FWIP, Volume 1, Section 5.3.3.5; and is supported by the following Sample Implementation Actions in Volume 3:

1. SU 1, pp 70 “Inform and coordinate with public and private landowners to increase safety in the urban-rural-wildland interface. Work together to reduce risk from natural disturbance by: reducing live and dead fuel loading, ladder fuels, and ignition sources; thinning forests to reduce tree density; creating single story structures; favoring shade-intolerant species; maintaining low risk of crown fires; and using prescribed fire to maintain low fuel levels (ICBEMP FEIS).”
2. SU 1, pp 78 “Regulate and track the use of hazardous material to prevent re-uses that contaminate surface water or groundwater
3. PPP 1-6, pp 127 “Inform, coordinate with, and cooperate with affected partners when planning and implementing watershedscale wildland fires across administrative boundaries to manage fuels, restore or maintain ecosystems, and obtain desired distribution of vegetation patches and patterns (ICBEMP FEIS).”

13. **Transportation and Infrastructure**

The Lonerock Ridge Project would not have any impacts on transportation or infrastructure, as there are no existing roads or trails within the areas proposed for the prescribed burn and roads being used as firebreaks are gravel and are not expected to be impacted by the burn. As a result, safety issues associated with the public interacting with the prescribed burn are not expected. In summary, the only impacts are minimal, and are similar to those described in the FWIP, Section 5.3.3.4, and is supported by the following Sample Implementation Actions in Volume 3:

1. PPP 1-6, pp 127 "Inform, coordinate with, and cooperate with affected partners when planning and implementing watershedscale wildland fires across administrative boundaries to manage fuels, restore or maintain ecosystems, and obtain desired distribution of vegetation patches and patterns (ICBEMP FEIS)."

14. **Climate Change**

Possible temporary, negative impacts to climate change include those relating to use of vehicles, equipment, and the burn itself. Burning in the fall when the fuel is drier would reduce the amount of gasses added to the atmosphere and result in a fire easier to control with cooler conditions and potential for rain. The controlled burn also removes material from future wildfires. Although climate change may impact the project area by increasing air temperatures, changing precipitation patterns, increasing extreme events, and changing sea level and tidal ranges, these impacts would be expected whether or not the Lonerock Ridge Project is implemented. While climate change is not speceifically addressed in the FWIP EIS, the long-term impacts on climate change from the project are expected to be low as is consistent with the impacts described, and is supported by the following Sample Implementation Action in Volume 3:

1. SU 1, pp 69 "Use prescribed fire to reverse the declining trend in air quality. Rationale: Through prescribed burning, overall air quality can be improved by: (1) moving some of the smoke to spring and fall when fuel and air conditions are cooler and more moist; (2) reducing the size of wildfires; (3) reducing the severity of wildfires; and (4) managing cumulative effects from prescribed fire smoke (ICBEMP FEIS)."

Findings

This SA finds that the potential impacts from the proposed Lonerock Ridge Project have been examined, reviewed, and consulted upon and are similar to those analyzed in the FWIP (DOE/EIS-0312). There are no substantial changes in the proposed action and no significant new circumstances or information relevant to environmental concerns bearing on the proposed action or its impacts within the meaning of 10 CFR § 1021.314(c)(1) and 40 CFR §1502.9(c). Therefore, no further NEPA analysis or documentation is required.

/s/ Israel Duran Date: *October 22, 2018*
Israel Duran
Contract Environmental Protection Specialist – ECF-4

Reviewed by:

/s/ Chad J. Hamel
Chad J. Hamel
Supervisory Environmental Protection Specialist

CONCUR:

/s/ Sarah T. Biegel Date: *October 22, 2018*
Sarah T. Biegel
NEPA Compliance Officer – ECP-4

Attachment A:
CSWCD Flier, Page 4, Fall 2016

GILLIAM EAST JOHN DAY
WATERSHED COUNCIL
NORIE WRIGHT, COORDINATOR

Our Response to Western Juniper Encroachment

The Lonerock Ridge Juniper Project

Previously published articles have expressed serious concerns of Western Juniper Encroachment over Eastern Oregon. It is one of the main goals and of objectives of the Gilliam East John Day Watershed Council to combat Western Juniper Encroachment across our region. The removal of Western Juniper from our native grasslands is of high priority due to the significant water usage and ability to out compete native plants., which degrades ecological health. With reduced water and native grasses for livestock and wildlife, less water instream for fish and other aquatic species, and recent drought conditions, the removal of the Western Juniper from native grassland has become a necessity.

Traditionally Western Juniper has been controlled by fire. However, due to fire suppression, and lack of fuels to carry and spread fire, Western Junipers have not been forced to survive in their native fire-resistant habitat. This leads to the encroachment on grasslands and pasture verses historically appropriate juniper sites such as south facing rocky slopes, causing an extreme imbalance in ecological health.

With the combined efforts of Gilliam East John Day Watershed Council, Gilliam Soil and Water Conservation District, and landowners, an estimated 5,500 of acres Western Juniper has been removed from this basin. Through these same partnerships and efforts, combined with NRCS, we have received funding to implement the Lonerock Ridge Juniper Project. This project includes the treatment for removal of an additional 8,588 acres of Western Juniper by way of controlled burn.

Project objectives are:

Juniper Treatment and Upland Vegetation Improvement
- Treat 8,588 acres of Western Juniper sites by method of prescribed burn.
- Reduce the density of Western Juniper stands; control and limit further spread of the species.

Reestablishment of native grasses through Grazing Plans guided by NRCS Specifications:
- Recruit native grasses and Forbes following treatment.
- Follow best land management practices.

Increase of Instream Flow:
- Increase ground moisture levels by reducing precipitation loss due to canopy interception.
- Release sequestered water supplies from adjacent uplands.

Increases Water Quality and Quantity:
- Return water currently captured by invasive juniper.
- Increase plant growth, water recharge, lateral flow to seeps, springs and streams.
- Filter runoff and reduce sediment input into the stream and spawning beds.

Improvement of Native Grass Stands:
- Improve wildlife habitat for deer, elk, and ground nesting birds.
- Encourage regeneration of native vegetation through prescribed fire to promote a healthier grass stand and ensure forage is available for livestock use.

We estimate pre-implementation will occur in the Fall of 2017 and post treatment to follow by the Fall of 2019. This project timeline is dependent on environmental conditions and is subject to change.

The process of juniper removal is no easy task. Hand and mechanical methods of treatment have proven to be time consuming and costly. Yet, through agency partnerships and landowner cooperation we have the ability to make an effective large scale effort to control Western Juniper encroachment and restore native grasslands through prescribed burning. This allows the treatment of all stages of juniper at a much reduced cost.

Additional funding by our partners has been requested to conduct monitoring before and after the Lonerock Ridge Juniper Project, this will further our knowledge of the hydrologic response of large scale juniper removal in this area of the basin.

Please call Norie with questions at: 541-384-2672 X 111

Lonerock Ridge Juniper Project