

PROGRAMMATIC AGREEMENT
**BETWEEN THE HUMBOLDT-TOIYABE NATIONAL FOREST MOUNTAIN CITY-
RUBY MOUNTAINS-JARBIDGE, AND SANTA ROSA RANGER DISTRICTS**
And
THE NEVADA STATE HISTORIC PRESERVATION OFFICER
**REGARDING VEGETATION MANAGEMENT PROJECTS RELATED TO FUELS
REDUCTION AND LANDSCAPE RESILIENCE**

WHEREAS, the Humboldt-Toiyabe National Forest Mountain City-Ruby Mountains-Jarbridge and Santa Rosa Ranger Districts (HTNF NE Zone), proposes to undertake vegetation management projects related to fuels reduction and landscape resilience (Projects) and has determined that these project types are undertakings subject to review under 54 U.S.C. § 306108 (commonly known as Section 106 of the National Historic Preservation Act [NHPA]), as amended, and its implementing regulations 36 CFR Part 800; and

WHEREAS, the HTNF NE Zone has determined that Projects on the affected districts (see Appendix A - map) may have direct, indirect, and cumulative effects upon properties included in or eligible for inclusion in the National Register of Historic Places (NRHP), hereinafter called historic properties; and

WHEREAS, the HTNF NE Zone, in consultation with the Nevada State Historic Preservation Officer (NVSHPO), has agreed to develop this Programmatic Agreement (PA) pursuant to 36 CFR § 800.14(b) as the effects of the Projects on historic properties cannot be fully determined prior to phased implementation under multiple National Environmental Policy Act (NEPA) decisions over the course of multiple years and management areas, involving similar and repetitive activities; and

WHEREAS, the HTNF has notified and invited the Advisory Council on Historic Preservation (ACHP) in accordance with 36 CFR § 800.6(a)(1)(c) to participate in consultation and the ACHP **has/has not** chosen to participate in the consultation per 36 CFR Part 800, Appendix A(c)(3) and **is/is not** a Signatory; and

WHEREAS, the HTNF NE Zone has consulted with federally recognized Indian Tribes who attach religious and cultural significance to historic properties that may be affected by Projects (Appendix B – list of parties), hereinafter collectively referred to as Tribes or individually by name. Tribes have been consulted regarding this PA, have been invited to be Concurring Parties to this PA, and will be consulted in the future as detailed in this PA. It is understood that a Tribe's participation does not imply an endorsement of any Projects in part or as a whole; and

WHEREAS, public/interested party participation and comments **were requested via release dated xxxx and was available on the HTNF website. No comments were received/public**

comments were received and...{TBD}. Future public/interested party participation will follow 36 CFR § 800.14(b)(2)(iii) for individual projects; and

WHEREAS, this PA is intended to address those reasonably identifiable activities and potential effects associated with the Projects within the Area of Potential Effects (APE) defined herein; and

WHEREAS, the APE is broadly defined as the administrative boundaries of the HTNF NE Zone. Project-specific APEs will be determined as individual treatment actions are proposed; and

WHEREAS, unless otherwise specified, duties of the HTNF as defined in this PA shall be carried out by the respective District Rangers; and

NOW, THEREFORE, the HTNF NE Zone, the NVSHPO, the ACHP, and Tribes (hereinafter collectively called Consulting Parties or individually by name) agree that the Projects shall be administered in accordance with the following stipulations in order to take into account effects on historic properties.

STIPULATIONS

The purpose of this PA is to establish an understanding between the HTNF NE Zone, the SHPO, and the ACHP as to how the Section 106 consultation process will be implemented with regard to phased vegetation management projects within the Mountain City-Ruby Mountains-Jarbidge and Santa Rosa Ranger Districts. The PA defines general and specific measures that will be undertaken by the parties to ensure that the mutual objectives and individual requirements of the National Historic Preservation Act, as amended, are fulfilled.

The HTNF NE Zone shall ensure that the following stipulations are followed:

I. Program Description

Projects covered by this PA will include a variety of activities undertaken to reduce hazardous fuels and improve landscape resiliency. Wildfires throughout the western United States continue to grow in magnitude, frequency, and severity. This presents a need for immediate management actions to reduce fuel loading and mitigate risks posed to wildland-urban-interfaces. The purpose of considering a variety of vegetation management projects on lands managed by the HTNF NE Zone is to reduce the risk of catastrophic fire and improve vegetation community function, resilience, and resistance. If left untreated, the landscape is vulnerable to detrimental effects of wildfire, including threats to human life; loss of infrastructure, livelihood, property, wildlife habitat, cultural resources, watersheds, ecosystem function and biodiversity; smoke emissions impacting airsheds; and many other compounding consequences. Vegetation management projects may include activities related to hand cutting and thinning, mechanical treatments (i.e. mastication, chaining, or mowing), prescribed fire, creation of fuel breaks, road maintenance (in order to access treatment areas, improve timely access for fire suppression in the future), prescriptive or targeted grazing, and restoration seeding and planting, as well as certain watershed restoration projects involving streambed and bank rehabilitation efforts. Project types

are described in Appendix C *Vegetation Management for Fuels Reduction and Landscape Resilience Treatment Guide*.

I. Standards, Roles and Responsibilities

A. The HTNF is responsible for administering this PA. This includes, but is not limited to, ensuring that signatories carry out their responsibilities; overseeing cultural resource work; assembling submissions to the SHPO and Tribe/s including reports, determinations of eligibility of effect, and treatment plans, as appropriate; and for seeking SHPO concurrence with agency determinations.

B. The SHPO, if provided sufficient data on a proposed undertaking for a Project APE and agency determination by the HTNF, shall consult and provide a response to the HTNF within timeframes identified in specific stipulations of the PA. The definition of sufficient data is provided in 36 CFR Part 800.11 and Stipulation VIII.

C. All cultural resource work performed under this PA will be directed by a qualified archaeologist that meets the Secretary of Interior's Historic Preservation Professional Qualifications Standards (36CFR61, Appendix A [1983]) and/or is a Forest Service Heritage Professional (i.e., Forest Service staff that meets, at a minimum, Office of Personnel Management standards under the GS-0170 historian, GS-0190 anthropologist, or GS-0193 archaeologist series [FSM 2360]).

D. The HTNF shall consult with Tribes to assist in identifying historic properties that may be of religious or cultural significance that should be incorporated into implementation monitoring or avoidance procedures recommended for project activities.

E. The HTNF will determine the need for and extent of public involvement for each Project according to 36 CFR § 800.2(d) and 800.6(a)(4).

F. The HTNF will protect sensitive information furnished under this PA to the fullest extent possible in accordance with applicable laws including Section 304 of NHPA (54 U.S.C. 307103); Section 9 of the Archaeological Resources Protection Act (16 U.S.C. 470hh); Section 8106 of the Food, Conservation, and Energy Act of 2008 (25 U.S.C. 3056); and Section 552(b) of the Freedom of Information Act (FOIA; 5 U.S.C. 552).

II. Area of Potential Effects

A. The HTNF NE Zone, in consultation with SHPO have agreed to a general Area of Potential Effects (APE) for Projects covered by this PA (Appendix A *Management Areas Covered by NE Zone Vegetation Management PA*). The APE for this PA broadly includes the administrative boundaries of the HTNF NE Zone districts, which represents approximately 1.5 million acres of Forest Service-administered lands. Not all acreage within this APE would be affected by individual, phased treatment Projects.

B. The FS Heritage Professional will determine Project-specific APEs upon evaluating Project topography, vegetation, access, and treatment needs.

1. Individual treatment Project boundaries will generally represent the APEs subject to analysis and will include consideration for Project access and staging locations. Given the nature of vegetation management activities considered under this PA, it is not expected that these activity types would result in potential effects to viewshed, setting, or feeling of historic properties, and so APEs are unlikely to expand beyond treatment area and access/staging boundaries; however, the potential for expanded APE will be evaluated for each treatment by the FS Heritage Professional.

C. The HTNF may amend the APE for the undertaking or any type of Project as needed or as requested by the SHPO or Tribes without amending the PA. All Consulting Parties will receive formal notification of the amended APE. Within thirty (30) calendar days of their receipt of the proposed amendment, any Consulting Party may request that the PA be amended in accord with the process outlined in Stipulation XIV.

III. Project Review and Exemptions

A. The FS Heritage Professional will review each proposed vegetation management Project to determine exemption applicability as well as identification needs. This review will consider specific components of proposed activities as well as available information about known or potential cultural resources in the APE in order to determine applicable exemptions described in Appendix D *Project Exemptions* or identification needs. The applicability and identification strategies under this section may be based on the nature of the proposed treatment activities, the characteristics of the project area, or both. Initial project assessment and applicability rationale can be documented on a *Project Needs Assessment Form* (Appendix E).

1. Projects with No Potential to Effect Historic Properties (Appendix D.I)

a) The HTNF, in consultation with the SHPO, has determined that certain types of Project activities have little to no potential to affect historic properties, regardless of location. These Project types are listed in Appendix D.I. and do not require field inventory or SHPO consultation prior to implementation.

2. Conditions Not Requiring New Inventory (Appendix D.II)

a) The HTNF, in consultation with the SHPO, has identified conditions under which specific areas within treatment units do not require new culture resource inventory prior to implementation. These conditions are listed in Appendix D.II. Determinations made in accordance with this Appendix may be applied without further SHPO consultation, and only require review and written agreement by the FS Heritage Professional prior to implementation.

IV. Identification of Cultural Resources

If a Project does not meet exemption criteria listed in Stipulation III, the FS Heritage Professional will review the APE to determine the best identification strategy based on existing historical and precontact knowledge of the APE, previous archaeological inventory, Tribal consultation, archaeological sensitivity of the APE, hazardous conditions or other barriers to identification, and type of proposed activity. Less-intensive and/or remote identification strategies may be chosen for Project types or specific areas within Project treatment units. The following methods may be used in conjunction with one another or separately, as appropriate.

A. Remote Strategies

The HTNF may determine that remote strategies are adequate for identifying historic properties in the APE. Multiple or as many remote strategies as feasible will be used to best determine potential for historic properties in the APE. These include but are not limited to Class I literature and geospatial data review, predictive modeling, LiDAR, development of historic contexts, on-site or off-site research of materials such as interviews, oral histories, ethnographic studies, and other ways to identify historic properties remotely. Remote strategies must be designed to meet a good faith effort to identify historic properties as determined by the FS Heritage Professional. When only remote strategies are chosen for specific implementation areas, the FS Heritage Professional and/or District Ranger will consult with applicable Tribal groups to ensure that the best available information is used. Consultation that led to this decision must be documented in a project annual report or inventory report as appropriate and according to Stipulation VIII.D.

1. *GIS Predictive Models*: The HTNF may use a GIS predictive model (i.e. based upon factors of water, slope, elevation, aspect, etc.) to predict archaeological site probability (i.e. low, moderate, and high probability areas) and facilitate the creation of archaeological survey strategy within an APE. The model used shall have been tested and subject to consultation with the SHPO regarding adequacy prior to using it for the purposes of this PA. If a new model is developed for the purposes of this PA, the model will be tested for adequacy in the following manner:

- a) A qualified archaeologist (the FS Heritage Professional) will test the model for accuracy within each APE in a systematic way (i.e. Intensive survey of a 1000 x 1000 meter grid or multiple grids adding up to the equivalent of a 1000 x 1000 meter grid of roughly equal proportions of low, moderate, and high probability areas).
 - (1) The SHPO will be consulted regarding the model and adequacy of testing.
- b) If the model appears to be accurate based upon the qualified archaeologist's professional judgment of the field test, then the model will

be employed to assess the potential for sensitive historic properties in an APE and to develop a survey strategy, if needed (e.g. may include but not be limited to Class III 30-meter transects in high probability, 30-60-meter transects in moderate probability, cursory survey in low probability). If the model is not accurate, then it needs to be refined and tested until accurate or determined to be not the appropriate tool to meet identification needs under this stipulation.

2. *Class I Inventory*: A type of inventory that uses existing information including but not limited to a review of previous field survey and site records; NVCRIS and NRM databases; cultural resource overviews; local environmental, archaeological, and historical information (i.e., GLO maps and county and state records); landscape sensitivity-predictive models; previously-provided information from Tribes; and information from persons familiar with the APE resulting in analysis and synthesis of all reasonably available data. Class I inventory can be used as a preliminary but thorough look at existing data to understand known resources, the potential for resources, identify data gaps, contribute to project planning (i.e. where to direct further inventory, identify sensitive areas for management), and for compliance with Section 106 identification requirements where no additional inventory may be necessary.

B. *Class II Inventory*: A probabilistic field survey that may involve statistically based sample survey designed to help characterize the probable density, diversity, and distribution of archaeological properties in a large area by interpreting the results of surveying limited and discontinuous portions of the target area. This category may also be implemented as reconnaissance-level inventory, defined as visual, predictive, or sample pedestrian surveys conducted at a less thorough standard than defined by Class III with the objective of identifying presence or likelihood of cultural resources in an area. Class II inventory design is likely to rely on one or more remote data type (such as predictive models) to determine best locations to conduct sample field survey. A Class II inventory may be appropriate when considering broad project areas where a general understanding of cultural resource presence is needed to make inferences about sensitive locations, for broad management planning, and the need for more intensive identification strategies in specific areas of an APE. The *Project Needs Assessment Form* (Appendix E) may be used to facilitate consultation with SHPO regarding rationale for Class II survey use prior to implementation of the methodology.

C. *Class III Inventory*: An intensive field survey that is a continuous, intensive survey of an entire target area, aimed at locating and recording all archaeological properties that have surface indications and is accomplished by walking close-interval parallel transects until the area has been thoroughly examined. Class III inventory

standards for the HTNF require survey transects to be spaced no greater than 30-meters apart. Class III inventory is appropriate where it is reasonably likely to identify historic properties that may be adversely affected by project activities.

D. The FS Heritage Professional may determine that components of any one APE warrant multiple identification strategies such that part of it may be subject to Class I and III inventory while another section may only require Class I review. Procedures pursuant to Appendix D shall be followed for sections of the APE that qualify. If the HTNF proposes less than 100% Class III inventory, the FS Heritage Professional may choose to consult with NV SHPO on proposed inventory strategy prior to analysis.

1. Initial consultation on inventory strategy may be accomplished with the submittal of a *Project Needs Assessment Form* (Appendix E), as appropriate, or letter with similar necessary project information. The Assessment Form would be submitted to SHPO for a thirty (30) calendar day review. The HTNF will make a good faith effort to address comments from the SHPO on the identification strategy. If SHPO does not respond within thirty (30) calendar days, the HTNF will assume concurrence.

E. The HTNF will evaluate whether historic properties identified in previous Class III inventories that are ten years old or older should be revisited to relocate such properties and reevaluate condition and eligibility determinations, and obtain relevant information necessary for avoidance treatment, or other mitigation. Age of previous inventory is not solely a reason to require additional review; however, considering changes in landscape condition and the adequacy of prior reporting to contemporary standards is paramount.

V. Determinations of Eligibility

A. The HTNF may evaluate cultural resources located within a project's APE for eligibility to the National Register of Historic Places (NRHP) prior to the initiation of activities that may affect historic properties.

B. The HTNF acknowledges that Tribes possess special expertise in assessing the eligibility of cultural resources that may possess cultural and religious significance to them. The HTNF shall consult with Tribes regarding the presence of significant cultural resources or historic properties in an APE. Tribes shall have at least thirty (30) calendar days from notification to provide the HTNF with comments or to request further consultation. The HTNF will take into account Tribal input when making or modifying NRHP eligibility determinations.

1. Based on consultation with Tribes, Line Officers may provide the Tribe with additional review or response time upon request.

C. After consultation with Tribes or concurrently, as appropriate, the HTNF shall transmit its determination of NRHP eligibility for newly identified cultural resources to the SHPO. The SHPO will have thirty (30) calendar days from receipt to either concur with the HTNF's eligibility determinations (in whole or in part) or provide the HTNF with its comments.

1. If the SHPO fails to respond within thirty-five (35) calendar days of receipt of an adequately documented NRHP evaluation (i.e. the HTNF does not receive response within 35 days), the HTNF will consider the determination final pursuant to 36 CFR 800.4(c)(2). The determination shall remain final for the property regardless of subsequent undertakings, unless the property warrants re-evaluation consistent with 36 CFR 800.4(c)(1). The HTNF may request SHPO review of eligibility determinations separately or in conjunction with an assessment of effect for a total thirty-five (35) calendar day review.

2. If the SHPO provides comments within the 35-day review period, the HTNF shall consider all comments from the SHPO, and may revise NRHP determinations, as appropriate. The SHPO will have thirty (30) calendar days from receipt to review and comment on the revised submission. If the SHPO fails to respond, HTNF will consider the determinations final pursuant to 36 CFR 800.4(c)(2).

D. The HTNF may defer a NRHP evaluation if the project can be designed to avoid all potential effects to the cultural resource. If a resource is left unevaluated, it shall be treated as if it were eligible for the NRHP. An unevaluated site may also occur as a result of the following:

1. Site is within an area that is too steep to inventory (i.e. rock shelters petroglyph panels, etc.)
2. Need more information to make a determination of eligibility (i.e. testing site, use of obsidian hydration to determine age, etc.)
3. Removed from the APE, therefore the site did not need to be evaluated

E. If the SHPO or any of the Consulting Parties disagree regarding NRHP eligibility, and the dispute cannot be resolved, then the HTNF shall seek a formal determination of NRHP eligibility from the Keeper of the National Register. The Keeper's determination will be considered final.

VI. Assessment of Effect

A. The HTNF, in consultation with the SHPO and other Consulting Parties, as appropriate, will determine the effect of the Projects on historic properties identified within the APE.

1. The HTNF acknowledges that a Project's potential effects to historic properties with traditional religious and cultural significance to Tribes can only be determined in consultation with those Tribes who value the property.

2. The HTNF shall transmit its finding of effect for a Project to SHPO for consultation. The submission shall include information related to Tribal consultation, as appropriate. The finding of effect may be submitted separately or with an inventory report package that also includes determinations of eligibility. The SHPO will have thirty-five (35) calendar days from receipt of an adequately documented finding of effect to review the determination. The SHPO will have thirty-five (35) calendar days from receipt of an adequately documented finding of effect to review the determination.

3. If the SHPO provides written comments within the 35-day review period, the HTNF shall consider these comments and may revise the determination of effect, as appropriate. Any revised determination of effect shall be provided to the SHPO for an additional thirty-five (35) calendar day review period. If the SHPO fails to respond within thirty (30) calendar days of receipt of either the original or revised determination effect, the HTNF shall consider the finding of effect final pursuant to 36 CFR 800.5(c)(1).

B. The HTNF, in consultation with SHPO and Tribes as appropriate, will seek to avoid, minimize, or mitigate adverse effects to historic properties from the Projects with avoidance being the preferred course of action. The HTNF shall avoid effects to historic properties to the extent feasible through project design or redesign (to include altering location of Project activities to avoiding sites and implementing no treatment within a buffer of a historic property), or monitoring, where appropriate.

C. *Adverse Effects.* If the HTNF determines the Project will result in an adverse effect to a historic property, the HTNF shall proceed to resolve adverse effects in consultation with the SHPO and Tribes, as appropriate, in accordance with 36 CFR § 800.6.

VII. Monitoring and Observation

A. The FS Heritage Professional, in consultation with the SHPO and Tribes, will determine if on-site monitoring by, or under the direction of, a qualified archaeologist is necessary to ensure that inadvertent adverse effects do not occur during implementation of Projects. Monitoring recommendations will be included in effects consultation reports.

B. If inadvertent effects or discoveries are encountered during the course of monitoring, the HTNF shall follow procedures identified in Stipulation X.

C. Documentation resulting from monitoring shall be filed with the project administrative record and/or in the Forest Service heritage database, as appropriate. Monitoring documentation shall include details about observations of the activity conducted within or near historic properties and shall include information related to monitoring conditions (i.e. weather and soil conditions, how many monitors, area being monitored, extent of activity), the results of monitoring, as well as if adjustments to implementation were undertaken to avoid impacts.

VIII. Reporting

A. Report formatting and site documentation shall be consistent with the latest accepted version of the Humboldt-Toiyabe Heritage Resource Guidelines, the Intermountain Antiquities Computer System (IMACS) instructions, and 36 CFR § 800.11.

B. In addition to IMACS forms used for archaeological resources, the HTNF will record architectural resources on Nevada Architectural Resource Assessment (NARA or ARA) forms, and may seek to adopt a standard Forest Service site form derived from the NRM database in the future.

C. Separate consultation on specific APEs or identification strategy prior to project analysis and reporting may be submitted to SHPO in a letter or by utilizing a Project Needs Assessment Form (Appendix E). The best submittal method may be altered if business practices are updated in the future.

D. The HTNF shall provide an annual report to the SHPO for each year that the PA is in effect. This annual report shall summarize details regarding Projects exempt from SHPO review in accordance with Stipulation III and Appendix D. The annual report will include at minimum, but not be limited to:

1. A table of all exempt projects initiated or completed during the reporting year. The table will include the name of the project, a brief description of the project activities, and the applicable exemption category/criteria.
2. Either within the table or separately in each report, a summary of the project review and rationale used to apply exemptions as per Stipulation III.
3. A summary of Tribal consultation efforts associated with reported Projects.

E. The HTNF shall submit annual reports to the SHPO on or before April 30 each calendar year.

1. SHPO may provide comments to the HTNF within 45 calendar days so that adjustments to report content, methods, and procedures can be made prior to the next reporting event.

F. Projects that are not exempted through Stipulation III will be reported separately to SHPO through individual project consultation reports. These reports will follow standard formats utilized by the HTNF to report on cultural resource inventory, findings, site evaluations, project effects determinations, and management recommendations (Stipulation VIII.A). Reports may also include, as appropriate, explanations of less-than-intensive and remote identification strategies used for any non-exempted projects (Stipulation IV.A) as well as processes for creation and testing of GIS predictive models used for projects covered by this PA, as indicated in Stipulation IV.A.1.

1. Upon receipt of project consultation reports, SHPO will have thirty-five (35) calendar days to review and comment. Inventory reports including determinations of eligibility may be submitted to SHPO separately or together with determinations of effect (Stipulations V.C. and VI.C.).

2. Determinations of effect submitted separately may be submitted in a concise letter report if SHPO has previously reviewed identification and evaluation documentation and the letter report includes clear references to prior review, copies of prior SHPO correspondence, and necessary site records to support review.

IX. Notices to Proceed

The HTNF may issue a Notice to Proceed (NTP) for individual Projects under any of the following conditions:

- A.** The Project meets exemption criteria described in Appendix D.
- B.** The HTNF has completed inventory of a Project APE and no cultural resources are located (negative inventory). The associated Project will be authorized with a NTP while the inventoried area will be documented in the Annual Report (Stipulation VIII.D); or
- C.** The HTNF, in consultation with the SHPO, have determined that there are no historic properties within the APE of the Project, or
- D.** The HTNF, in consultation with the SHPO and Tribes, as appropriate, have determined that historic properties are present in the Project; however, the Project will not result in adverse effects to those properties provided the negotiated avoidance or mitigation measures are implemented.

X. Discovery and Unanticipated Effects Stipulations

If HTNF discovers previously unidentified cultural resources or unanticipated effects to

historic properties while conducting vegetation management project activities, the discovery or unanticipated effect shall be subject to the terms of this PA and this stipulation:

A. If a previously unidentified cultural resource or unanticipated effect to an historic property is discovered, all surface disturbing activities within 200 feet of that resource shall cease. Within five (5) days of discovery, the HTNF shall notify the appropriate SHPO, and Tribe/s for resources of traditional religious and cultural significance, that a discovery or unanticipated effect situation exists. The HTNF will gather available information regarding the resource, including an eligibility determination that shall be provided to the appropriate SHPO and Tribe/s as part of that notification. The SHPO may offer comments within ten (10) days of the notification by the HTNF if they choose.

B. At the conclusion of the ten (10) day comment period, the HTNF shall consider and address all comments from the SHPO and Tribe/s to determine if:

1. The discovered cultural resource is not eligible to the NRHP; or
2. The discovered cultural resource is, or is likely to be, eligible to the NRHP. In such cases, the HTNF shall determine if the historic property:
 - a) Was affected by Project activities prior to the discovery and if the effect was adverse and will require mitigation; and
 - b) If the historic property will be affected if the approved activity was allowed to proceed.

C. If the HTNF determines that Project activities have adversely affected the historic property or if the historic property would be affected by the approved activity, the HTNF shall not allow the activity to proceed within 200 feet of the historic property until appropriate mitigation actions have been conducted in accordance with 36 CFR § 800.6.

D. The HTNF shall ensure that the discovery of Native American remains will be managed in accordance with Native American Graves Protection and Repatriation Act of 1990 (NAGPRA).

XI. Emergency Situations

A. Should an emergency situation occur which represents an imminent threat to public health or safety, or creates a hazardous condition, the HTNF shall respond to the emergency or hazardous condition and immediately notify the SHPO, Tribes, and the ACHP of the emergency situation along with the measures the HTNF has taken to respond to the emergency situation according to the procedures in 36 CFR § 800.12. Should the SHPO, Tribes or the ACHP desire to provide technical assistance to the HTNF, they shall submit comments within seven (7) calendar days from the notification, if the nature of the emergency or hazardous condition allows for such coordination.

B. For fuels, forest health, and timber projects that are subject to emergency determination by the District Ranger, the HTNF shall follow the provisions of this PA to the maximum extent practicable to identify efficiencies and utilize applicable exemptions. The HTNF may use emergency procedures under 36 CFR § 800.12 where conditions of that regulation are met and there is explicit direction for the Project to do so based on an emergency determination.

XII. Duration

A. This agreement becomes effective on the date of the last Signatory signature below and it shall remain in effect for ten (10) years from the effective date.

B. If the HTNF determines the terms of the PA should be extended, or if proposed actions within an APE are not completed prior to expiration of the PA, the HTNF may consult with the signatories to reconsider the duration of the PA and amend the Agreement in accordance with Stipulation XIV.

XIII. Dispute Resolution

A. Should any signatory to this Agreement object at any time to any actions proposed or the terms of this Agreement, the HTNF shall consult with such party and the SHPO to seek resolution of the objection. All Consulting Parties shall have fifteen (15) business days to respond. If HTNF determines that such objection cannot be resolved through consultation, the HTNF shall:

1. Forward all documentation relevant to the dispute, including the HTNF's proposed resolution to the ACHP. The ACHP shall provide HTNF with its advice on the resolution of the objection within thirty (30) calendar days of receiving adequate documentation. Prior to reaching a final decision on the dispute, HTNF shall prepare a written response that considers any timely advice or comments provided by the ACHP, SHPO, and Tribe/s, and shall provide them with a copy of this written response. The HTNF shall then proceed in accordance with its final decision.

2. If the ACHP does not provide its advice regarding the dispute within the thirty (30) calendar day review period, the HTNF may proceed with a final decision on the dispute and proceed accordingly. Prior to reaching a final decision, the HTNF shall prepare a written response that considers any timely comments received from the SHPO and Tribe/s and shall provide copies of that response to the ACHP, SHPO, and Tribe/s.

B. The HTNF's responsibility to carry out all other actions subject to the terms of this PA that are not the subject of the dispute shall remain unchanged.

XIV. Amendments

A. Any Signatory or Concurring Party to this PA may request an amendment to this PA, whereupon the Signatories and Concurring Parties will consult to consider such amendment. HTNF will provide the results of this consultation to all the Concurring Parties within ten (10) days of any formal consultation meeting or negotiation.

B. While an amendment is under consideration, the HTNF shall ensure that no action is taken that would affect historic properties or that would foreclose the consideration of modifications or alternatives until the consultation process concerning the proposed amendment has been concluded.

C. An amendment to this PA shall take effect on the date that it is fully executed by the Signatories.

XV. Termination

A. If any Signatory to this PA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation XIV, above. If within thirty (30) days (or another time period agreed to by the Signatories) an amendment cannot be reached, any Signatory may terminate the PA upon written notice to other Signatories and Concurring Parties.

B. In the event of termination, the HTNF will comply with 36 CFR § 800.4 through 36 CFR § 800.6 with regard to individual actions covered by this PA.

XVI. Anti-Deficiency Act

A. The Forest Service's responsibilities under this PA are subject to the availability of funds, and the stipulations of the PA are subject to the provisions of the Anti-Deficiency Act. The HTNF shall make reasonable and good faith efforts to secure the necessary funds to implement this PA in its entirety. If compliance with the Anti-Deficiency Act alters or impairs the Forest Service's ability to implement the stipulations of the PA, the Forest Service shall consult in accordance with the amendment procedures found in this PA. In the meantime, all work on the Project will cease.

EXECUTION of this PA by the HTNF and the SHPO and implementation of its terms evidence that the HTNF has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

This PA may be executed in counterparts, each of which shall constitute an original, and all of which shall constitute one and the same agreement.

SIGNATORIES:

HUMBOLDT-TOIYABE NATIONAL FOREST

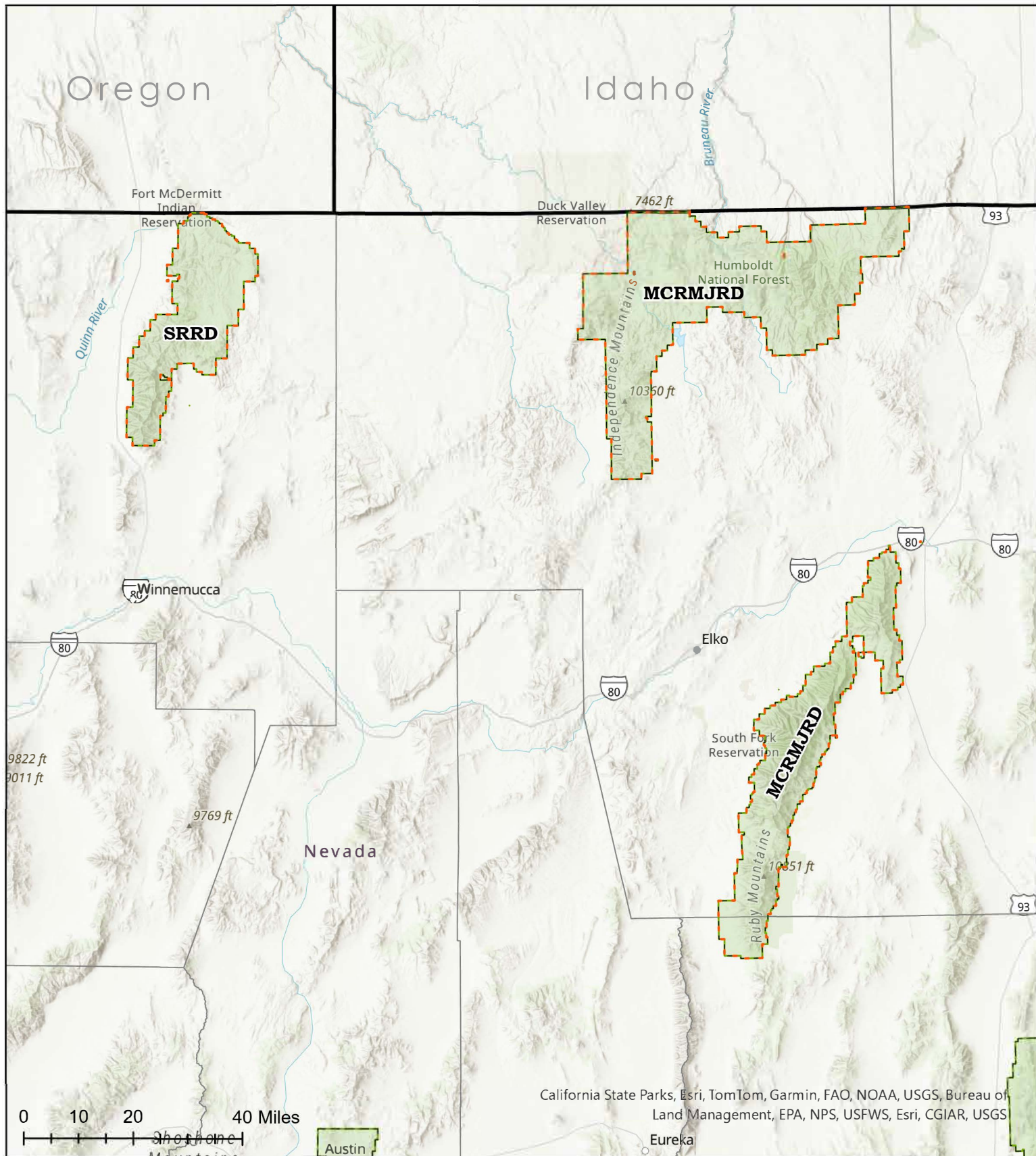
Forest Supervisor
Humboldt-Toiyabe National Forest

Date_____

NEVADA STATE HISTORIC PRESERVATION OFFICE

State Historic Preservation Officer

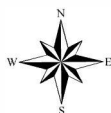
Date_____



Humboldt-Toiyabe National Forest
Mountain City-Ruby Mountains-Jarvis Ranger District (MCRMJRD)
Santa Rosa Ranger District (SRRD)

Appendix A

Management Areas covered by NE Zone Vegetation
Management PA



Appendix B – List of Consulted Tribal Entities

TRIBE, COMMUNITY OR ORGANIZATION
Elko Band of Shoshone
South Fork Band Council
Te-Moak Tribal Council
Wells Band Indian Colony
Battle Mountain Band
Duck Valley Shoshone-Paiute Tribe
Duckwater Shoshone Tribe
Fort McDermitt Paiute and Shoshone Tribe
Winnemucca Indian Colony
Summit Lake Paiute Tribe
Lovelock Paiute Tribe

VEGETATION MANAGEMENT FOR FUELS REDUCTION AND LANDSCAPE RESILIENCE TREATMENT GUIDE



Appendix C

MECHANICAL TREATMENTS

Mechanical treatments generally occur on slopes less than thirty-five percent due to equipment operating limitations. Treatments follow a specified implementation prescription to produce desired conditions. Mechanical treatments may be the best tool to treat vegetation, also known as fuels, within Wildland Urban Interface (WUI) or high resource value areas where hand-thinning or prescribed fire may not be feasible or adequate to reduce fuel loading and mitigate fire hazards. Mechanical treatments reduce the size of fuels, changing the vertical and horizontal arrangement of fuel to limit the rate of fire spread and decrease fire intensity. Mastication, mowing and chipping are common methods of mechanical treatment for fuels reduction. Biomass such as chips or shredded and masticated vegetation may be left on-site for natural decomposition and soil protection, treated with a secondary treatment (e.g., prescribed fire), or removed from the treatment area. Chipping or piling and burning of biomass may occur after treatment to remove fuels and further reduce wildfire fire risk. Mechanical equipment used for fuels reduction include but are not limited to the examples below.



Figure 1: Two examples of different types of brush saws. Brush saws chip and shred trees and brush up to 15 feet tall. Brush saws have a variety of cutting heads that can attach to several different pieces of equipment as shown above (image source: <https://revegetation.greatbasinfirescience.org/equipment/hydraulic-shearing-blades-and-brush-saws/>).



Figure 2: Masticators like those shown above shred and chip vegetation in a similar manner to brush saws. Masticator heads can be attached to different types of equipment with different sizes and capabilities. Often excavator-base tracked equipment with a boom arm and masticator attachment is the preferred piece of equipment due to its low pressure ground disturbance (<8psi) and smaller travel footprint, requiring one path to much vegetation rather than several passes that other equipment may require to produce the same result (image source: USFS).

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Figure 3: Examples of mastication treatments with pre-treatment images (left) and post-treatment images (right) taken the same season treatment occurred. Trees may be left on sight depending on treatment objectives and prescription (image source: USFS).



Figure 4: Mastication unit with pre-treatment (above) and post-treatment (below). Brush saws and masticators shred material and reduce fuels into pieces of trees and chips as shown above. Chippers produce smaller pieces of trees and vegetation (image source: USFS).



Figure 5: Examples of long-term vegetation response after mastication treatments in areas of pinyon-juniper with little to no understory vegetation prior to treatment. Left-a mastication unit near Spruce Mountain (BLM) ten years after treatment; right- vegetation response in a mastication unit near Indian Creek in Ely, NV (USFS) seven years after treatment (image source: left-BLM; right-USFS).

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Figure 6: Chaining uses a large anchor chain dragged between two dozers to rearrange vegetation. Chaining can be done with a smooth chain (often chosen for reseeding in fire burned areas to restore native vegetation) or an Ely anchor chain (shown above- uproots pinyon and juniper trees, leaving clear ground for newly seeded grasses and shrubs to grow) with different methods depending on objective of the treatment. Chaining provides openings in the soil that are receptive to seeding of grasses and shrubs that occurs with this process and produce a positive vegetation response after treatment while also providing cover and habitat microclimates wildlife, (image source- USFS).



Figure 7: Chaining unit within the first few years of treatment, showing the vegetative understory condition outside of the unit (right side of photo) and the resulting vegetative response within the chaining unit, (image source: BLM).



Figure 8: Vegetation response in chaining units within 5 years of treatment near Ward Mountain, NV (left) and ten years after treatment near Spruce Mountain, NV (right); (image source: left-BLM, right-USFS; both images taken of BLM projects).

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HAND THINNING

Hand thinning generally occurs across slopes up to seventy percent to provide a desired outcome or treat where equipment is limited by safety, capability or vegetation type such as cutting and removing fuels around homes, steep slopes, riparian areas or unstable soils. Crews with chainsaws cut brush and trees to rearrange fuels, reducing vertical and horizontal fuel continuity and fuel size. Hand thinning treatments may include cutting fuels across a landscape in delineated units, cutting brush and ladder fuels underneath the dripline of remaining trees, and cutting of fuel breaks along roads or natural barriers. Crews may pile cut slash for burning in the winter months, chip materials on site or lop and scatter cut fuels within the unit depending on the amount and size of remaining vegetative material. Hand thinning treatments may also include personal or commercial fuelwood harvest to remove fuels from the landscape.



Figure 9: Vegetation is cut and piled (above left) to reduce pinyon juniper encroachment into sagebrush while reducing fuels. Pile burning occurs during favorable conditions and hand thinning to remove regrowth such as pinyon and juniper seedlings (top right) may continue periodically to work towards or maintain a desired condition such as the post-treatment photo (below) depicting a unit several years after initial cutting, then pile burning and retreatment to remove regrowth of fuels (image sources: USFS).



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Figure 10: Hand thinning may occur across large units where slash is left on site to provide nutrients and soil cover (left, background) or may be treated mechanically to reduce fuels along roadsides (left foreground; also see fuel breaks below) or removed for fuelwood use (right). Hand thinning treatments may be combined and many treatment types may be used across a landscape (image source: USFS)..

FUEL BREAKS

Fuel break treatments may occur where treatment of vegetation along open roads and other natural features would provide timely access for equipment and result in control elements to use for future fire containment operations. Roadside fuel breaks may be created using hand thinning or mechanical treatments as determined for treatment by fuel type and anticipated fire behavior to provide holding points for fire suppression along travel routes. Road maintenance may be a part of roadside fuel break treatments to address issues such as adequate signing, failing culverts, washouts, stream crossing and non-functioning water bars or drain dips to provide timely access for fire suppression resources. Shaded fuel breaks may be implemented along ridge tops, access roads, or adjacent to wildland urban interface areas. Shaded fuel breaks do not remove all vegetation in a treatment area but instead focus on vegetation thinning as well as removing understory and ladder fuels in order to break up large, continuous tracts of vegetation with intent to control fire spread.

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Figure 11: Examples of a mowing attachment (left) and a pull-behind chipper (right). Mowers such as the brush hog mower shown above can be pulled beside or behind a tractor and may be used to treat brush species or grasses. Chippers produce chips of vegetation, operated by a crew of people or by remote, and may be pulled behind a vehicle as the one pictured above or operated with controls on tracks in a variety of equipment configurations (image sources: left- <https://bushhog.com/full-product-guide/>; right- <https://www.morbark.com/product/m20r-forestry-whole-tree-drum-chipper/>).

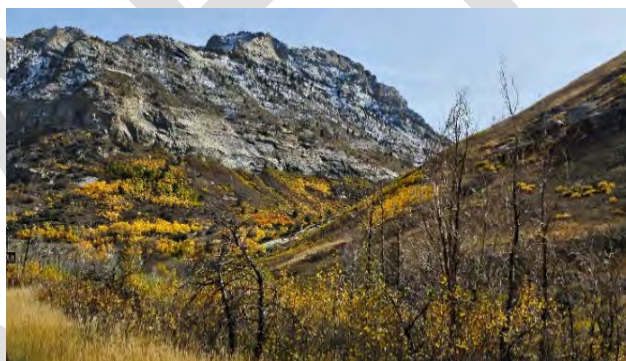
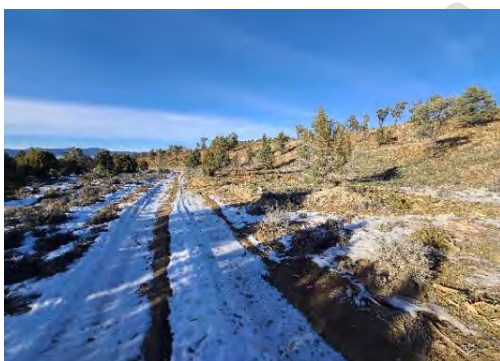


Figure 12: Roadside fuel break treatments may involve mechanical treatments such as mastication (left), hand thinning and chipping of fuels along roadways (right), or a combination of treatments (image source: USFS).

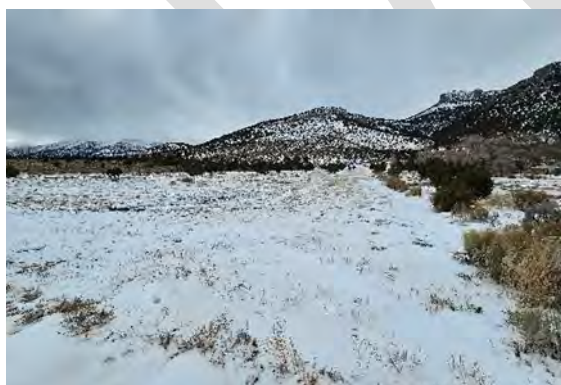


Figure 13: Mowers such as the brush hog mower shown above (upper left) can be pulled beside or behind a tractor and may be used to treat brush species or grasses. Mowers are often used to maintain fuel breaks along WUI areas or roads for brush and fine fuels treatments (sources: left/right- USFS).

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PRESCRIBED FIRE

Prescribed fire treatments may include understory burning, broadcast burning, burning of hand piles, and burning of machine piles created as a result of mechanical fuels treatments. Understory burning occurs under a forested canopy to reduce fuel loading in the understory and produce a mosaic pattern that results in a patchwork of low, moderate and high intensity burn areas that provide diverse habitat for wildlife and achieve other specific objectives. Broadcast burning describes implementation of prescribed fire in a variety of vegetative cover types across an area to achieve specific objectives i.e., burning of brush fields to reduce decadent brush canopy and surface fuels within a unit. Prescribed burning reduces fuel loading for fire hazard mitigation and increase ecosystem health by removing fuels and improving vegetation condition.

Prescribed fire treatments may occur as an initial treatment, intermediate treatment and/or maintenance treatment to achieve objectives and work towards desired conditions. A site may be thinned to remove and/or rearrange fuels with mechanical treatment, hand thinning, or cutting and piling of materials and then treated with broadcast or understory prescribed fire to reduce and remove fuels and further improve or maintain desired conditions of the site. Prescribed burning may be conducted using a variety of tools and methods for implementation including ground ignition devices, aerial ignition using helicopters with helitorch and/or Plastic Sphere Dispensers (PSD), aerial ignition with Unmanned Autonomous Systems (UAS).

Piles created through hand thinning or mechanical activities would be burned during wetter, cooler months to reduce activity and surface fuels. Prescribed fire may include burning a single unit two or more consecutive years to reach desired conditions, control understory vegetation, and/or to reduce subsequent fuels buildup from fire-induced mortality. Maintenance treatments of prescribed fire may occur to sustain the benefits of completed fuels treatments. Prescribed burning may occur throughout the year as established by prescription and associated burn planning, in compliance with design criteria, agency policy and other applicable restrictions such as wildlife timing or air quality regulations.



Figure 14: Fuels were cut and piled during summer months (left). Piles are burned in winter months (right) with fire crews that require advanced planning and logistical support such as the pack string shown here delivering fuel and drip torches like the one shown in the foreground needed by crews to burn piles on steep slopes (image source- USFS).

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Figure 15: Vegetation is cut and piled to reduce fuel loading in the WUI (above left). Pile burning of cured hand or slash piles occurs during favorable conditions of wetter, cooler months, often with snow or rain present, when weather conditions allow for smoke dispersal as determined by careful planning and implementation. Surface and activity fuels are reduced on the site (bottom photo); (image sources- USFS).



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Figure 16: Prescribed fire may occur as broadcast burning, prescribed fire applied over a predetermined area in a variety of fuel types with an established burn plan and prescription to restore fire to the landscape and produce a desired condition (top left). Understory burning (top center) occurs under a forested canopy with an established burn plan and prescription to reduce ground and ladder fuels while producing a mosaic pattern of varying fire intensity to achieve specific objectives. The goal of prescribed fire is to mimic the effects of natural fire (bottom left). A prescribed fire for stand replacement in aspen, for example (right), may result in regeneration of healthy aspen ecosystems as shown here ten years after treatment; (image sources: upper left-BLM; all others-USFS).

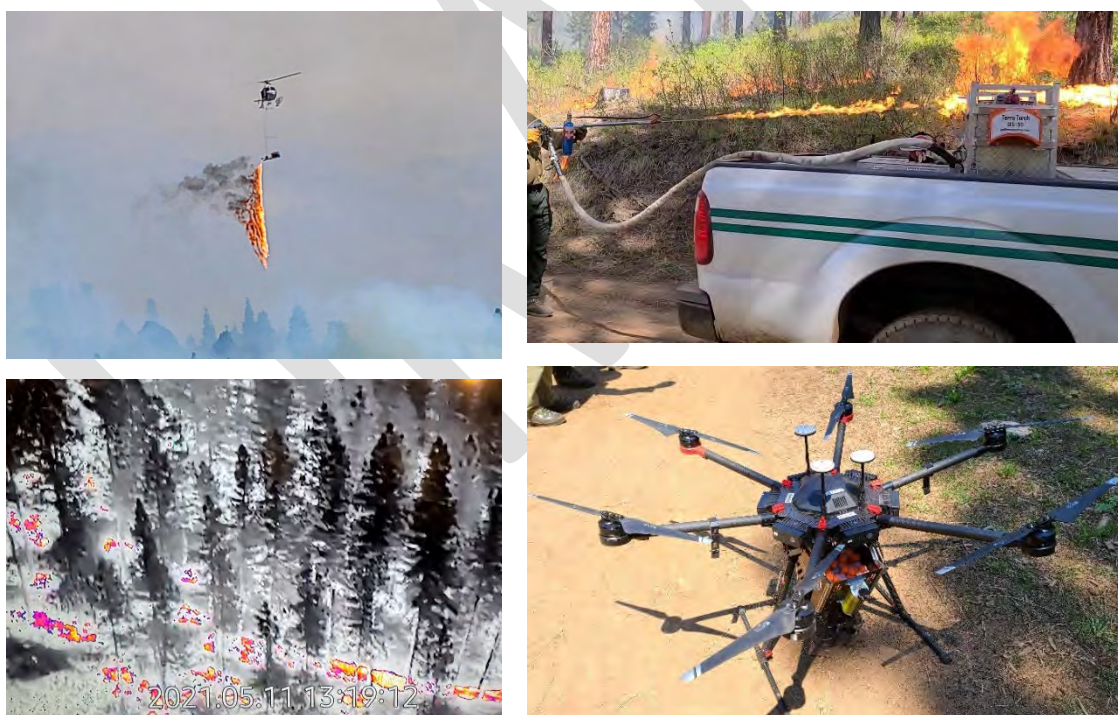


Figure 17: Examples of tools used for prescribed fire implementation. Aerial ignition tools include helicopters with helitorches such as the one depicted here (upper left) and helicopters or drones with plastic sphere dispensers (lower right) that are injected with a reactive substance as they leave the aircraft, causing combustion so that the spheres ignite and burn once they hit the ground. Teretorches such as the one depicted above (upper right) use a mixture of fuel in a compression system to deploy burn lines quickly. Infrared technology as shown in the lower left image above helps pilots and burn crews to see the locations and amount of heat generated by burn operations on the ground (image sources: USFS).

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PRESCRIPTIVE & TARGETED GRAZING

Prescriptive grazing may be used to reduce or remove fine fuels or invasive annual species to maintain desirable fuel loads. Prescriptive grazing consists of intentional grazing by animals for fine fuels reduction and maintenance of implemented treatments through purposeful application of a specific species of livestock at a determined season, duration, and intensity to accomplish defined vegetation or landscape objectives. Prescriptive grazing focuses on reducing heavy fuel loads of annual species, reducing the seed head production and spread of invasive annual species, and reducing fuel loading to decrease fire behavior and mitigate wildfire hazards adjacent to WUI or other high value resources. Prescriptive grazing may occur as an initial treatment, intermediate treatment following other fuels treatments, or as a treatment tool to maintain a site at desired conditions. Implementation of grazing activities may require the installation of temporary range improvement infrastructure to allow for proper distribution and control of livestock, shorter grazing periods, and other necessary livestock management tools. Vegetation community types likely to be selected for the placement of temporary range infrastructure include sagebrush shrubland, pinyon-juniper, and areas identified with an abundance of non-native herbaceous species and grasses. Grazing infrastructure that may be placed temporarily include containment infrastructure (e.g. fences or corrals, base stations to support virtual fencing); water troughs; mineral, salt, and supplement tubs).



Figure 18: Prescriptive grazing may occur using a variety of livestock as determined by soil conditions, objectives and feasibility of implementation (image sources: left/right- USFS; center-<https://iforest.sisef.org/contents/?id=ifor1112-007#>)

RESTORATION SEEDING & PLANTING

Treatments such as mastication may be accompanied by seeding with perennial grasses, forbs and shrubs to mitigate the spread of invasive species and to encourage the restoration of native vegetation ecosystems. Seeding generally focuses on native perennial seed mixtures and may include non-native perennial species for areas such as restoration of a heavily infested site where the potential for success using native species is considered very low. Examples of replanting may include planting of seedlings and/or planting of poles, direct broadcast (by hand or mechanically), or aerial seeding. Replanting may also include whitebark pine, which would adhere to restoration strategies that follow best available science and restoration approaches (i.e. seedling transportation, planting, site preparation, and direct seeding).

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Figure 19: [Left] Aerial seeding operation (Image source: BLM). [Right] Planting of seedlings by hand in burned area (Image source: USFS).

ROAD MAINTENANCE

Road maintenance is a project that may need to be conducted in support of vegetation management to ensure access into treatment areas as well as to improve timely access for fire suppression vehicles in the future. Maintenance would be conducted to repair driving surfaces, restore good drainage, and address vegetation encroachment on a road corridor. These conditions may be addressed by actions such as grading road surfaces, removing berms for better drainage, installing rolling dips, adding gravel, installing or cleaning out lead-off ditches, installing/replacing/cleaning out culverts and cattle guards, as well as applying magnesium chloride or wood chips to mitigate dust. New road construction or road realignments would not be considered maintenance activities covered under this project type.

RIPARIAN RESOURCE RESTORATION

Restoration would focus on riparian areas with active hydrologic alterations (e.g., head cuts and gullies), enhancing their function as natural fuel breaks across the landscape through maintaining and repairing floodplain connectivity and supporting groundwater recharge. Riparian resource restoration activities would occur during low flow conditions and would typically take anywhere from 1 to 3 weeks to complete, depending upon the size and complexity of the treatment area. Vegetation and/or tree removal may be needed in support of accessing restoration areas; however, that would be limited to the greatest extent practicable. No new roads would be created as part of riparian resource restoration. Examples of treatment types include:

INSTALLATION OF POST-ASSISTED STRUCTURES (PAS) – PAS would be used in all channel types for a variety of reasons, including but not limited to repairing areas of channel incision, addressing reduced hydrologic complexity (e.g., loss of meanders), slowing water in deeply incised areas, and supporting floodplain restoration. PAS could span the width of the stream or be used in a segment of a stream width to direct flow.

The number of PAS installed would vary based on stream gradient. One to three PAS would be installed within every 100 feet of channel length in steeper-gradient sections of a treatment area or when bridging large head cuts. One to three PAS would be installed within every 300 feet of channel length in lower-gradient stream sections of a treatment area. Structures would be built in complexes, to slow the flow of water and create steps across a stream reach or head cut zone.

Treatment areas would be the minimum necessary to stabilize the area of concern but could extend up to 1,000 feet in length, with the number of PAS installed within a reach ranging from less than 100 (in lower-gradient reaches) to 300 (in steeper reaches). To install PAS, posts are inserted vertically into the stream channel, floodplain, and/or bank using a manual hydraulic post hole pounder or other means.

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Willows or other native shrub material, sourced from within or adjacent to the treatment reach, is then woven between the posts. In the case of post-assisted log jams, woody material is stacked across or in the channel to create a log jam and then anchored with posts to secure the log jam.

INSTALLATION OF GULLY REVETMENTS – Gully revetments are used to protect against bank erosion and are typically used in ephemeral or intermittent gullies that are associated with meadows and seeps. Gully revetments involve several techniques to reinforce and stabilize the channel. These include armoring by adding materials such as rocks, modifying the channel bank by laying back the slope, implementing plugging and ponding with the addition of rocks or other materials to pool water, and utilizing brush waddling by placing brush in the stream channel. In addition to reducing erosion, gully revetments support soil water retention to pre-incision levels and prevent the spread of upland species (e.g., sagebrush) within meadow or seep areas.

Gully revetment treatment areas would be the minimum size necessary to stabilize the area. Gully revetment activities would be conducted by hand or with mechanized equipment. Hand treatment would include the use of hand tools and/or moving materials such as rocks by hand. Hand treatments would typically be used within smaller treatment areas. Heavy equipment may also be used to transport materials in larger and/or more complex treatment areas. This could include the use of excavators and backhoes, haul trucks, dump trucks, skid steers, and loaders. Overland travel would be confined to specified routes within the selected treatment area to minimize site disturbance. Access routes used during construction of the gully revetments would be obscured upon completion. This would include but is not limited to placing brush over the route, repositioning riparian brush back up after it is driven over, scarifying the surface with the teeth of an equipment bucket, raking or bushing the tracks with a limb held by an excavator, and/or installing water bars to prevent concentration of flow. An area can be treated within 1 to 3 weeks, depending on the size and complexity of the treatment area.

INSTALLATION OF LOW-RISE IN CHANNEL ROCK STRUCTURES – The installation of low-rise channel rock structures, (also referred to as pool tail augmentation) may be used within intermittent and perennial channels to increase the depth of pools. This would be accomplished by elevating the riffle at the outlet of a pool for energy dissipation to reconnect a stream to its floodplain or an inset floodplain and prevent further incision.

Low-rise channel rock structures would be the minimum size necessary to stabilize the area. The installation of the low-rise channel rock structures would use mechanized equipment such as excavators or mini excavators. Rocks placed would need to be large enough that they would not be displaced during normal flows. They would need to be placed such that flows do not erode around the rock structure. Haul trucks, dump trucks, loaders, and skid steers may be used for transport and/or placement of materials. Materials used for the low-rise rock channel would be from a clean source.

INSTALLATION OF HEAD CUT REVETMENTS – The installation of head cut revetments would be used to repair head cuts. Refer to methods described above for gully revetments and low-rise channel rock structure installation, as head cut revetments would utilize similar methods and equipment.

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Figure 20. Installation of post-assisted structures (left). Installed in-channel post-assisted structure (right). (Image Source: USFS)



Figure 21. Completed bank revetment with willow staking (left). Completed gully revetment (right). (Image Source: USFS)



Figure 22. Installation work for a meadow plug and pond feature (left). Completed plug and pond feature in an ephemeral drainage (right). (Image Source: USFS)

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Figure 23. Back-filled headcut (left). Installing a grade control structure to prevent further downcutting (right). (Image Source: USFS)



Figure 24. Installing an artificial riffle or low rise in-channel rock structure for grade control (left). Installed low-rise in-channel rock structure (right).

UNIQUE OPPORTUNITIES

Circumstances may require specialized equipment to remove fuels such as steep slopes, areas where dead or dying trees pose hazards to people or infrastructure, and where fuels need to be removed from a site rather than chipped or shredded to reduce the risk of insect and disease impacts to remaining healthy vegetation and trees. Examples of specialized equipment that may be used for fuels removal include but are not limited to those listed below. As technology advances so do opportunities for specialized equipment and innovative fuels treatments, requiring forethought and proactive planning efforts that include these possibilities for use as conditions evolve into the future.



Figure 25: Horses (left) or yarders (right) are specialized ways to transport and remove fuels from a treatment area where slopes or terrain limit accessibility by equipment. Removing fuels from a treatment area may occur to reduce fire risk and reduce sources for insect and disease development among sensitive species such as white bark pine (image sources: left-<https://www.horseillustrated.com/horse-news-2017-05-horses-step-in-to-do-a-job-motorized-vehicles-cant-handle> center/right-<https://www.fs.usda.gov/forestmanagement/equipment-catalog/index.shtml>).

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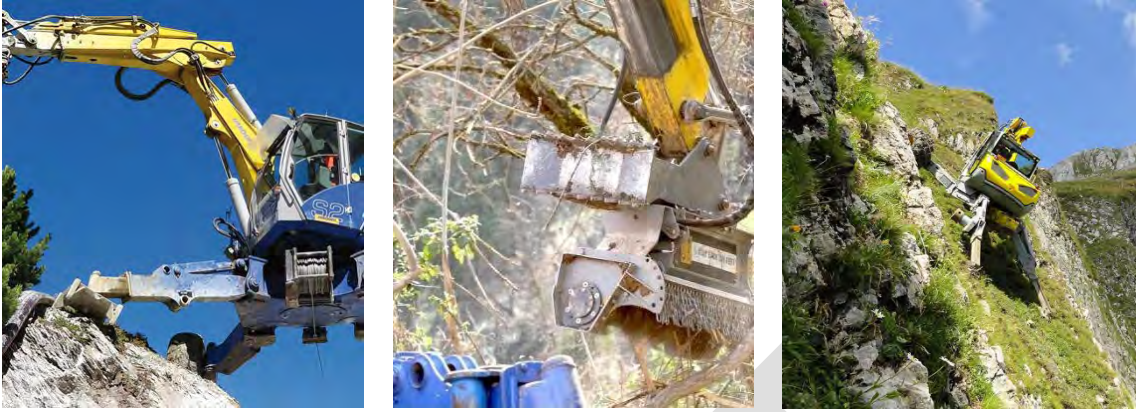


Figure 196: Technology continues to evolve and there may be specialized tools that help us implement specialized fuels work in the future such as specialized equipment attachments (center) or the spider excavator that can operate on steep slopes (left, right).

APPENDIX D: PROJECT EXEMPTIONS

I. *Projects with no potential to affect historic properties.*

The HTNF has determined that the following actions have no potential to affect historic properties and may be conducted without field inventory and no further SHPO consultation prior to project implementation. These projects require review and written agreement by the FS Heritage Professional prior to implementation in accordance with Stipulations III, IV.D., and IX. If the FS Heritage Professional determines that one of these actions may have an adverse effect on historic properties, or will continue an on-going adverse effect, the action shall be subject to additional heritage review including any identification strategies defined within the PA (Stipulation IV).

- A. Hand-thinning of vegetation limited to lop-and-scatter of low-density, small-diameter brush and trees of less than 12 inches diameter at breast height (dbh) in areas that do not have the potential to affect access to or use of resources by Indian Tribes based on the nature of the project. Consultation with applicable tribes may be necessary to confirm that no such resources will be affected, and tribal monitors may be used to ensure resource protection. Vegetation is cut by hand and dropped to the ground to scatter in place, left to naturally deteriorate. There is no piling or burning. Work is completed using hand tools only. Activities result in no ground disturbance. Density and overall tree size need to be carefully considered for each Project; a combination of larger trees, higher tree density, and high likelihood of cultural resources could result in impacts to certain historic properties, if present.
- B. Road maintenance confined to previously maintained surfaces where there are no known historic properties. For the purposes of this agreement, road maintenance is defined as road grading, repairing or in-kind replacement of overside drains, culverts, rolling dips, riprap and metal end sections, and cleaning debris from drainages within the road prism. This includes roads subject to maintenance outside the Forest Service boundary but which have Forest Service-maintenance responsibilities (i.e., rights-of-way) across private lands.
- C. Maintenance and replacement in kind and in place of modern, existing nonstructural facilities related to Project activities (e.g., cattle guards, gates, fences, guardrails, barriers, etc.) that do not involve new ground disturbance, or where ground disturbance is limited to less than one cubic meter total per acre and in areas where there are no known historic properties or where the presence of historic properties is considered highly unlikely.
- D. Road clearing of down trees and other debris where there are no known historic properties. For the purposes of this agreement, road clearing is defined as maintaining road access by cutting or moving material out of the roadbed. Skidding or dragging material outside of the road prism or other previously maintained road surfaces will require additional heritage review and may be subject to field survey.

- E. Felling and removal of hazardous and wind thrown trees from road and trail prisms, recreation sites, or other areas deemed necessary for health, safety, or administrative reasons, so long as trees are felled into and removed from within existing disturbed areas (e.g. extent of road cut and fill), heavy equipment is operating on existing roads, and new ground disturbance is not permitted (e.g., existing roads and pullouts are used for travel and staging, operation over snow).
- F. Mastication of trees and brush along a road corridor but outside of the road prism when the following is true:
 - a. Mechanized equipment does not leave the roadway. Mastication is accomplished by use of a machine equipped with a boom- or excavator-mounted mulching head that can reach up to 40-ft from the road edge to shred vegetation and trees; or
 - b. Mastication is conducted over several inches of snow with no ground surface disturbance.
- G. Construction and maintenance of protective fuel breaks around certain archaeological sites (e.g., rock art) and historic structures (e.g., cabins, mining structures, administrative structures, recreational developments, summer homes) through the cutting, pruning and removal of trees, brush, slash, ladder fuels and other vegetation using chainsaws and hand tools by pedestrian crews, including use of small mechanized equipment (e.g., rakes, loppers, pruning saws, chainsaws, weed whackers, small mowers). Resulting slash is removed off site, scattered or piled and burned away from structures, fire-susceptible features and concentrations of archaeological deposits at the direction of a FS Heritage Professional and such activities do not affect the integrity of setting of historic properties.
- H. Permits allowing for collection of forest products (e.g. personal fuel wood) for non-commercial purposes that would not result in new ground disturbance.
- I. Non-disturbing broadcast seeding and mulching to provide surface cover for establishment of vegetation and/or erosion control; application is by means of hand or aerial-based operations, or in slurry with seed.
- J. Activities that involve less than 1 square meter of cumulative ground disturbance, unless within known historic properties or unevaluated sites. The “less than 1 square meter” threshold is not cumulative for any given project; therefore, multiple sub-meter disturbance zones up to a maximum of 10 may be exempted as long as no individual disturbance is so close to another to cumulatively result in more than 1 square meter of disturbance in one location and following review of the Project by the FS Heritage Professional.
- K. Hand-planting of small brush species seedlings (i.e. bitterbrush, sagebrush) where individual seedlings would be inserted by hand with the use of a planting bar. Seedlings may be containerized stock (approximately 6x6 inches) or bare root stock. Seedling planting may be accompanied by installation of mesh protector tubes and stakes.

- L. Riparian resource restoration activities limited to within active stream channels, not including terraces, cutbanks, flood plains, etc.

II. *Conditions where new inventory is not required for a certain treatment area.*

The HTNF has determined that when the following conditions are met, no new survey is required. These projects require review and written agreement by the FS Heritage Professional prior to implementation in accordance with Stipulations III, IV.D., and IX.

- A. Areas of the APE of steep slope (>30%) where sites are not expected to occur, based on local knowledge of the types of historic properties in a given area. Steep slopes will be spot checked in the field for geological features conducive to cultural use (e.g., rock shelters).
- B. Areas of the APE where past natural or human-caused ground disturbance (when that human caused disturbance is not part of a historic cultural landscape) has modified the surface so extensively that the likelihood of finding evidence of intact historic properties is negligible and the site area has not been identified as being significant for other reasons that may make it eligible for the National Register, including but not limited to those that may be of religious and cultural significance to one or more Tribes. Determining that a given area has been so extensively disturbed that the likelihood of finding intact historic properties is negligible requires knowledge of local geology (including natural and cultural stratigraphy), knowledge about the types and depths of historic properties expected in the area, and consultation with applicable tribes.
- C. No additional identification efforts are required prior to making decisions about the implementation of a project action if the APE is entirely within areas that have been previously inventoried; and the FS Heritage Professional determines that the previous identification efforts are adequate. When assessing and certifying the adequacy of previous inventory work (i.e., reports and documentation), the FS Heritage Professional shall consider the following measures: when the work was done; who did the work and whether there are any previously identified problems with similar work; what parties were consulted and how; what methods were used; whether survey methodology accounted for both prehistoric, Indian cultural and historic resources; changes in environmental conditions; and adequacy of documentation.
- D. No additional identification efforts are required prior to implementing treatment maintenance or re-treatment within areas that have already been subject to that same or very similar treatment type and have been inventoried or exempted previously in accordance with Section 106 regulations or the provisions of this PA. Re-treatment must reflect a similar level of disturbance as was analyzed for or exempted previously (e.g., if an area was exempted for hand-thinning previously but re-treatment would involve cross-country mastication efforts; the exemption would no longer apply to that kind of re-treatment and additional analysis may be necessary). The FS Heritage

Professional shall verify the adequacy of prior inventory or exemptions prior to re-treatment through the following considerations: when the work was done; who did the work and whether there are any previously identified problems with similar work; what parties were consulted and how; what methods were used; whether survey methodology accounted for both prehistoric, Indian cultural and historic resources; changes in environmental conditions; and adequacy of documentation.

HUMBOLDT-TOIYABE NATIONAL FOREST

Project Needs Assessment Form – NE Zone Fuels PA

Project Name:	HT District/Office:
Exempt? Yes ☐ No ☐	Proposed Inventory Strategy:

Purpose: This form is an optional tool intended to assist with project needs assessment in accordance with the Programmatic Agreement (PA) regarding HTNF NE Zone Vegetation Management Projects. According to Stipulations III, IV, and VIII; information gathered in this form may be used to document agency determinations of exemption applicability, as well as support consultation with NV SHPO on APE and identification strategy for projects that are not exempt under the PA, as needed. Projects that meet no exemption, that will be subject to Class III inventory and reporting, may not require this form, especially as a consultation tool with SHPO. This form may be used to document consultation or to document exempted projects for the annual report (Stipulation VIII.D).

1. Project Description:

(Add text)

Project dimensions (length, width, height, depth): _____

Acreage: _____

2. Legal Description:

Township/Range/Sections:

USGS 24k Quad/s name:

Land Status: USFS ☐ Private ☐ Other (include details) _____

3. Area of Potential Effect (include explanation of APE determination)

APE Acreage: _____ (acreage to include the entire acreage if different APE components are considered. Explain components and special considerations in the justification)

Justification:

4. Records Check

Records Examined:

Date Records Examined:

Results:

(i.e.) Previous Cultural Resource Inventory

Previously Recorded Sites in APE

Archival Research

Ethnographic Resources

Archaeological Site Sensitivity Model Summary

5. Exemption Applicability

Appendix D.I ☐

Appendix D.II ☐

Not Applicable ☐

Justification of Exemption Applicability:

(provide explanation of how the project meets exemption criteria and decision framework for why applicability was determined)

6. Inventory Type Determination*

Inventory will not be required if a project or project unit meets exemption criteria identified in Appendix D.I or D.II. All non-exempt projects will require an inventory strategy.

None ☐

Class I ☐

Class II ☐

Class III ☐

Architectural ☐

Rationale for Inventory Type determination:

7. Consultation Efforts and Further Needs

Tribal Notification/Consultation Needs

Tribe(s) to be contacted:

Rationale:

Completed to date:

Public Notification Needs:

Person(s), group(s) to be contacted:

Rationale:

Completed to date:

8. Other Comments:

Form completed by: _____ Date: _____

District/Office: _____

* Inventory Definitions:

Class I: A type of inventory that uses existing information including but not limited to a review of previous field survey and site records; NVCRIS and NRM databases; cultural resource overviews; local environmental, archaeological, and historical information (i.e., GLO maps and county and state records); landscape sensitivity-predictive models; previously-provided information from Tribes; and information from persons familiar with the APE resulting in analysis and synthesis of all reasonably available data.

Class II: A probabilistic field survey that may involve statistically based sample survey designed to help characterize the probable density, diversity, and distribution of archaeological properties in a large area by interpreting the results of surveying limited and discontinuous portions of the target area. This category may also be implemented as reconnaissance-level inventory, defined as visual, predictive, or sample pedestrian surveys conducted at a less thorough standard than defined by Class III with the objective of identifying presence or likelihood of cultural resources in an area. Class II inventory design is likely to rely on one or more remote data type (such as predictive models) to determine best locations to conduct sample field survey.

Class III: An intensive field survey that is a continuous, intensive survey of an entire target area, aimed at locating and recording all archaeological properties that have surface indications and is accomplished by walking close-interval parallel transects until the area has been thoroughly examined. Class III inventory standards for the HTNF require survey transects to be spaced no greater than 30-meters apart. Class III inventory is appropriate where it is reasonably likely to identify historic properties that may be adversely affected by project activities.

Architectural: An evaluation of an architectural resources- buildings (created principally to shelter any form of human activity) and structures (functional constructions made usually for purposes other than creating human shelter).