

HERITAGE IMPLEMENTATION PLAN FOR
Aerial Application of Herbicide on the
Humboldt-Toiyabe National Forest in Nevada

PURSUANT TO THE 2021 NATIONAL PROGRAMMATIC AGREEMENT
AMONG THE U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE, THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION, AND THE NATIONAL
CONFERENCE OF STATE HISTORIC PRESERVATION OFFICERS
FOR PHASING SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT
FOR LARGE-SCALE MULTI-YEAR UNDERTAKINGS

This Heritage Implementation Plan (HIP) documents the process and actions the Humboldt-Toiyabe National Forest (HTNF) will follow to meet NHPA Section 106 responsibilities throughout the span of the Aerial Application of Herbicide Project (Project) Environmental Assessment (EA), including identification and evaluation of historic properties, assessment of effect, and resolution of adverse effects as needed, pursuant to 36 CFR §§ 800.3 through 800.7. The Project proposes to authorize application of herbicide on areas managed by the HTNF in Nevada using rotary-wing aircraft (i.e. helicopter), fixed-wing aircraft, and unmanned aerial vehicle (UAV) equipment. The nature of effects on historic properties from components of herbicide is not well understood or documented. Due to the scale of the Project, all potential for effects to historic properties cannot be determined prior to approval of the undertaking. Rather than assume an adverse effect where there may not be one, this plan seeks, in good faith, to avoid adverse effects to historic properties, as well as to monitor for effects to better understand the potential impacts of this treatment type.

The HTNF developed the following provisions in consultation with the Nevada State Historic Preservation Office (SHPO), referenced throughout as “HIP consulting parties.” No other HIP consulting parties have been designated at this time.

This HIP protects sensitive information 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 (5 U.S.C. 552).

The Forest Service shall ensure the following provisions are met:

I. Area of Potential Effects (APE) Overview

A. APE Description.

- 1) The Project APE includes any potential treatment areas within the boundary of the HTNF within Nevada. The HTNF consists of seven districts, has approximately 5.6 million acres in Nevada, and this acreage reflects the potentially affected environment with some exceptions. Areas that would not be treated with aerial herbicide application include designated Wilderness, Wilderness Study Areas, and Research Natural Areas (RNAs) and these are excluded from the APE (Appendix A).

This APE is anticipated to incorporate direct, indirect, and cumulative effects of project implementation. Aerial application of herbicide is expected to have limited potential for effects to cultural resources. Potential effects may include disturbance from project activities such as ground-based support equipment staging, application of herbicide and adjuvants to sensitive rock art sites or structures (i.e. masonry), rotor wash from helicopter flights, and visual or auditory changes to the setting of historic properties during application. Due to the Project's nature, audible noise from aerial vehicles during application would be temporary and transient.

- 2) Existing information for the APE includes:

Approximately 17 percent of the APE has received previous cultural inventory, and 9,550 cultural resources have been recorded, encompassing a wide range of site types. Precontact resources include permanent and semi-permanent habitations, limited activity areas such as lithic scatters, lithic and tool scatters, campsites, and rock features consisting of cairns, stone circles, alignments, hunting blinds, rockshelters (e.g., Gatecliff Shelter, Triple T Shelter, and Pie Creek Rock Shelter), or areas used for gathering and processing specific resources. Historic resources include artifact scatters/dumps, farmsteads, homesteads, logging camps, mining camps, and mining related infrastructure (i.e., railroads, roads) homestead locations, early Forest Service administrative buildings, bridges, and linear features (i.e., transmission lines, ditches, canal/segments, and irrigation related features). Multicomponent resources include a combination of the site types mentioned above.

According to the HTNF Cultural Resource Records Database (NRM), of the 9,550 resources previously recorded within the APE, 614 are National Register of Historic

Places (NRHP)-eligible; 16 are listed in the NRHP; 7,787 remain unevaluated for the NRHP; and 1,119 have either been recommended or determined not eligible for listing in the NRHP. Fifteen previously recorded resources did not include discussions of eligibility, and for the sake of this analysis, are henceforth considered unevaluated, bringing the total of unevaluated resources to 7,802. Few Traditional Cultural Properties (TCPs) have been previously designated within the APE; however, data sources indicate that known resources could have potential traditional cultural significance to Native Americans.

The cultural resource records also indicate that of the 16 NRHP-listed sites, two are pre-contact sites, 12 are historic, and two were either listed as “unknown” or the information was unavailable. Of the 614 NRHP-eligible resources, 320 are pre-contact sites, 246 are historic, and 48 were either listed as “unknown” or the information was not available. Of the 7,802 unevaluated resources, 4,734 are pre-contact sites, 2,198 are historic, and 870 were either listed as “unknown” or the information was unavailable. Finally, of the 1,119 resources either recommended or determined ineligible, 519 are precontact sites, 483 are historic, and 117 were either listed as “unknown” or the information wasn’t available.

- 3) A Map of the APE is located in Appendix A
- 4) Approximately 83% of lands managed by the HTNF in Nevada have not been subject to inventory. While certain districts have developed cultural resource probability models, the entire forest does not have probability analysis completed in order to estimate a potential quantity of unidentified sites. It is expected that a potentially large amount of sites associated with a variety of themes remain unidentified.

B. Refining APE post Project decision.

- 1) For implementation activities associated with this Project, the Agency Official, designated authority, or Project lead shall provide early notice to the Heritage Professional at least 6 months prior to planned implementation.
 - (i) The Agency Official, designated authority, or project lead shall provide the Heritage Professional with spatial locations of the proposed work, a description of project activities including types of equipment, staging and support locations, and implementation schedule.
- 2) Upon notification of a proposed implementation project, the Heritage Professional shall:
 - (i) Define a Proposed Action APE consistent with 36 CFR § 800.4 (a), FSM 2360, and ACHP guidance documents. All Proposed Action APEs will include, but may not be limited to, the boundary of treatment units and

- the footprint of staging locations associated with ground-based support equipment. The APE determination for individual Proposed Action APEs would not require comment from HIP consulting parties under this HIP with the exception of consultation with tribes pursuant to Stipulation II.B.2. For proposed actions not exempted under Stipulation II.B., APE determinations will be subject to consultation in findings reports as per Stipulation VI.B;
- (ii) Review existing information on historic properties within the Proposed Action APE, including any data concerning possible historic properties not yet identified. All available data types, including those listed in Stipulation II.C.1, and as feasible to determine the presence of potential historic properties according to the professional judgement of the Heritage Professional, will be used in order to make this assessment;
 - (iii) Utilize existing information and feedback from tribal consultation to determine if inventory is required and develop an inventory strategy (Stipulation II). The inventory strategy would be reported to HIP consulting parties in a report pursuant to Stipulation VI.B.

II. Process to Complete a Reasonable and Good Faith Identification Effort

- A. The Agency Official will make a reasonable and good faith effort to identify historic properties in the APE before beginning Project activities in an area where historic properties may be affected.
- B. Activities that do not require inventory.
Application of aerial herbicide includes few components expected to have potential to affect historic properties because of the low potential for ground disturbance with this application method. Project design elements (Appendix D) are intended to reduce or eliminate physical disturbance from implementation staging. The potential for physical impacts from ground-based equipment is well understood, predictable, and can be planned to avoid impacts. Impacts of herbicide chemicals and adjuvants may often be presumed minimal or non-existent on historic properties; however, little data exists to support this conclusion. Many historic property types are not expected to be impacted by herbicide chemicals; however, certain material types may be particularly susceptible to corrosion from reactive chemicals and adjuvants. Potentially susceptible material or property types have preliminarily been identified as rock art (though rock type susceptibility may differ) and features or buildings including masonry. Not all APEs will contain properties identified as potentially sensitive to aerially applied herbicide. Review of individual APEs using remote strategies (Stipulation I.B.2.ii-iii and Stipulation II.C.1) will be used to establish the presence or likely presence of sensitive properties in an area; it is expected that many proposed actions will not require physical inventory. Therefore, all proposed

applications that are determined by the Agency Official, in consultation with the Heritage Professional, to occur in areas with no cultural resource concerns, determined by pre-implementation review of existing cultural resource information and Tribal consultation, will not require inventory. Rare cases where potentially susceptible properties may exist and effects are not well understood may be determined to require inventory.

Proposed aerial application projects will be exempt from inventory if the following stipulations are met:

- 1) The Heritage Professional has been given appropriate notice of the proposed action details (Stipulation I.B.) and has determined through review of information on file about cultural resources that effects to historic properties are unlikely.
 - (i) Certain components of project activities may be more likely to affect resources; these include staging of ground-support equipment and possible effects to materials with rock art or masonry, for example. Project Design Elements require ground-support activities to occur within previously disturbed areas outside of known historic properties. Chemical effects of herbicide on certain cultural resource materials remains unstudied, especially in instances where surfactants are used in conjunction with the herbicide. Rotor wash is expected to be a minimal concern because aircraft will not be landing in treatment units, will be flying too high to create a downdraft capable of affecting surface resources, and will be avoiding known historic properties at staging locations. Due to the proposed action's nature, visual changes from implementation vehicles or audible noise from aerial vehicles during application would be temporary and transient;
- 2) Tribal consultation has been completed for the individual Proposed Action APE in accordance with 36 CFR 800.2, and this did not result in identification of sensitive cultural resources or unresolved concerns about potential effects. Utilization of this exemption by the HTNF does not change the established process and protocols for consulting with federally recognized Tribes potentially affected by an undertaking (according to direction found in laws and regulations including: NEPA, ARPA, NAGPRA, AIRFA, E.O. 13007, and E.O. 13175). The HTNF recognizes that cultural resource locations and connections to areas on the landscape are still vitally important to Tribes and shall ensure consultation and coordination has occurred for proposed actions considered by this HIP; however, no Tribe has expressed an interest in being party to this HIP as a designated HIP consulting party at this time.

The HTNF will provide summaries of No Inventory determinations to HIP consulting parties in an annual report (Stipulation VI.C). If initial review or Tribal consultation results in the identification of possible effects or the need to conduct inventory, then other stipulations of this HIP will be followed in those instances.

C. Identification strategies.

For any proposed actions that do not fall within exemption criteria identified in II.B. or II.C.3, the Agency Official shall complete identification where historic properties may be affected prior to implementation in individual APEs. Any of the following methods can be used in conjunction with one another or separately as appropriate. Identification methods will be determined by the Heritage Professional and will be 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 undertaking component.

1) 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 a given area. These include but are not limited to 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 Heritage Professional. When only remote strategies are chosen for specific implementation areas, the FS Heritage Professional and/or Agency Official will consult with applicable Tribal groups to ensure that the best available information is used. Consultation that led to this decision must be documented and placed in the Project record.

(i) The HTNF may use a GIS predictive model (i.e. based upon factors of water, slope, elevation, aspect, etc.) to predict site probability (i.e. low, moderate, and high probability areas) 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 HIP. If a new model is developed for the purposes of the HIP, the model will be tested for adequacy in the following manner:

1. A qualified archaeologist (the 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).

- a. The SHPO will be consulted regarding the model and adequacy of testing.
2. 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. could 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) New Survey

Where the Heritage Professional has determined that a Proposed Action APE does not meet exemption criterion indicated in Stipulation II.B or II.C.3, new field surveys for the identification of historic properties may be recommended.

- (i) New survey may rely on a probability-based survey strategy to target identification efforts based on the nature of the implementation activity and the level of cultural sensitivity.
- (ii) Inventory should be completed to standards identified by the Heritage Professional.
- (iii) The inclusion of traditional knowledge is a critical component in the identification and evaluation of historic properties of religious and cultural significance to Tribes. The regulations acknowledge that the passage of time, changing perceptions of significance, or incomplete prior evaluations may require the reevaluation of Project areas for the presence of historic properties (36 CFR § 800.4(c)(1)). This is a particularly important consideration in planning for identification, because past identification and evaluation efforts may not have included the traditional knowledge held by Indian Tribes.

3) Areas that do not require survey.

The Agency Official in consultation with the Heritage Professional has determined the following areas do not require field survey:

- (i) Areas of steep slope (e.g. 30%) where sites are not expected to occur, based on local knowledge of the types of historic properties in a given area and as informed by HIP consulting parties or tribal consultation.
- (ii) Areas where past natural or human-caused ground disturbance 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) as well as knowledge about the types and depths of historic properties expected in the area and will take into consideration information gained from HIP consulting parties and including information about resources of cultural and religious significance to Tribes.

D. Determination of Eligibility Process.

- 1) The Agency Official shall acknowledge that Tribes possess special expertise in assessing the eligibility of historic properties that may have religious or cultural significance to them.
- 2) If the Heritage Professional identifies properties as a result of new survey, the Agency Official shall:
 - (i) Apply the National Register criteria (36 CFR § 63) to new or unevaluated properties identified within an APE in accordance with 36 CFR § 800.4(c), and in consultation with the SHPO and Tribes.
 1. After consultation with Tribes, as appropriate, the HTNF will transmit eligibility determinations to the SHPO; or
 - (ii) Treat unevaluated properties as eligible in accordance with FSM 2363.22.
 - (iii) Submit findings of eligibility to the SHPO for consensus determinations pursuant to 36 CFR 800.4(c)(2). These submissions will be incorporated into Proposed Action APE cultural resource reports described in Stipulation VI.B.

E. Reporting.

The Agency Official shall submit eligibility determinations using standard reporting formats compliant with FSM 2362.16 and 36 CFR 800.11 to SHPO for a 30-calendar day comment period in alignment with Stipulation VI.

F. Disagreement.

If the FS and SHPO cannot agree on the eligibility of a property, or if the ACHP so requests, e.g. after receiving a disagreement notification from a Tribe that attaches religious and cultural significance to a property off Tribal lands, the FS will obtain a

formal determination of eligibility from the Keeper of the National Register, whose decision shall be final (36 CFR § 800.4(c)(2)). No Project activities with the potential to affect historic properties may begin in an area of the Project where there are known cultural resources until a determination of eligibility has been made or until the Agency Official elects to avoid cultural resources in that portion of the Project regardless of eligibility determination.

III. Assessment of Effects

- A. Process for assessments of effect. Upon completion of historic property identification for each Proposed Action APE, as necessary, the Heritage Professional will determine whether proposed activities may directly or indirectly affect the integrity of NRHP characteristics for eligible and unevaluated properties. Direct and indirect effects to historic properties will be determined using criteria outlined in 36 CFR § 800.5(a)(3) and ACHP guidance. If a Project activity may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of property's location, design, setting, materials, workmanship, feeling, or association, Stipulation V of this HIP will be followed.

B. No Historic Properties Affected.

When the Heritage Professional determines there are no historic properties or a low probability of historic properties in the APE, the Agency Official may reach a finding of No Historic Properties Affected. Documentation supporting the finding will be provided consistent with 36 CFR § 800.11 to HIP consulting parties in Proposed Action APE reports associated with recommended inventory or will be compiled in the annual report for exemption projects determined to have no affect to historic properties.

C. No Adverse Effect.

When the Heritage Professional determines historic properties or areas with probability of historic properties are present but the proposed action will not result in an adverse effect as defined by 36 CFR 800.5 *or* the proposed action incorporates measures to ensure any effects will not directly or indirectly alter any of the characteristics of a historic property that qualify it for the NRHP, the Agency Official may reach a finding of No Adverse Effect for proposed action activities. A No Adverse Effect determination may be facilitated by efforts to alter Proposed Action APE boundaries, altering project design, or establishing viable exclusion areas that are marked for avoidance for proposed action activities where historic properties or unevaluated properties that may be National Register eligible may be affected (as determined by the Heritage Professional and/or HIP consulting parties

and Tribes). This may include utilizing less-impactful application methods where sensitive cultural resources are identified.

- 1) When the Agency Official reaches a finding of No Adverse Effect, the determination will be provided to HIP consulting parties in a Proposed Action APE report as per Stipulation VI.B., consistent with 36 CFR § 800.5(c), and documentation consistent with 36 CFR § 800.11.

IV. Post-Implementation Monitoring

A. The HTNF may recommend post-treatment monitoring of potentially sensitive sites. Sensitive sites could include but may not be limited to rock art or exposed masonry. The Heritage Professional should use available information, including results of consultation, to determine the sensitivity of any given site that falls within this category; not all sites including rock art or masonry are considered historic properties or may not be considered sensitive to application. Post-implementation monitoring would be completed for identified sites once a year for three (3) years following treatment. If no adverse effects are identified, monitoring will be discontinued.

- 1) Monitoring will be conducted according to a Monitoring Protocol and utilizing a standard form (Appendix C);
- 2) Monitoring will be conducted where sensitive historic properties are identified and post-implementation impacts are not well understood; however, it may also be employed to monitor non-eligible potentially sensitive site types in order to gather additional treatment and effects data. Monitoring data may be used to further refine predictive models and improve the Heritage Professional's ability to develop effective treatment strategies;
- 3) Results of post-implementation monitoring will be included in the annual report (Stipulation VI.C.) unless emergency remediation may be necessary and then notifications should follow 36 CFR 800.13(b)(3).
 - (i) Results of monitoring will be used to inform future exemption decisions;
 - (ii) Consistent evidence of no effects may be used to make a determination of No Historic Properties Affected for all Proposed Actions in consultation with HIP consulting parties (Stipulation E.4).
 - (iii) Results of monitoring will be stored in monitoring or consultation reports and the Forest Service NRM Database. These results will be made available to HIP consulting parties as well as other preservation and land management practitioners upon request to the HTNF to facilitate a wider understanding of herbicide impacts.
- 4) If adverse effects are identified, the Agency Official will consult with the Heritage Professional and HIP consulting parties to determine mitigation, if

applicable, and to determine strategies to minimize or avoid those types of effects by future treatments as per 36 CFR 800.13(b)(3) and Stipulation V.

V. Adverse Effect Findings and Resolution of Adverse Effects

An adverse effect may potentially alter, directly or indirectly, any of the aspects of integrity or characteristics of an historic property that qualify it for listing in the NRHP (36 CFR 800.5). An adverse effect may be determined as a result of initial APE review, Proposed Action APE inventory, or post-implementation monitoring.

- A. The Heritage Professional shall notify HIP consulting parties of the determination of adverse effect within an Annual Report (Stipulation VI.C) or a Proposed Action APE report (Stipulation VI.B).
 - 1) In cases of the discovery of unexpected effects and potential need for emergency remediation (such as adverse effects identified immediately after treatment in post-treatment monitoring events), the Agency Official shall follow procedures identified in 36 CFR 800.13(b)(3). Efforts will be made to determine a way to avoid or minimize repeating observed effects in future treatments. This may include but not be limited to revising assumptions about effects and inventory exemptions falling under Stipulation II.B, requiring additional inventory for Proposed Action APEs as per Stipulation II.C, and creating best practices for avoidance by Proposed Actions.
- B. Where effects are determined through inventory and the proposed action cannot be modified to avoid or minimize effects:
 - 1) The Agency Official will consult with HIP consulting parties and Tribes (where applicable) to resolve the effects through the development of a Memorandum of Agreement (MOA) or Historic Properties Treatment Plan (HPTP).
 - (i) These documents shall stipulate the actions that the Agency Official will take to resolve adverse effects, a timeline for implementing those actions, and procedures for documenting fulfillment of mitigation measures in coordination with HIP consulting parties.
 - (ii) Project activities that could have an effect on historic properties may not proceed until mitigation measures to resolve adverse effects have been determined and implemented following consultation.
- C. Disagreement on the path taken to resolve adverse effects (i.e. MOA or HPTP) between the Agency Official, Heritage Professional, and HIP consulting parties will be resolved through the dispute resolution process set forth in Stipulation X.A.

VI. HIP Reporting Process

- A. National Phasing Agreement Record Keeping

The Heritage Professional is responsible for entering information regarding any implementation activity initiated under the HIP and National Programmatic Agreement for Phasing Section 106 for Large-Scale Multi-Year Projects (Phasing NPA) into the internal FS Heritage NPA electronic system of record.

B. Proposed Action APE Cultural Resource Report

Proposed Action APE identification reports will only be created for projects not exempted under Stipulation II.B. Survey methods and results will be formally documented in the report for each Proposed Action APE. Reports will meet standards identified in 36 CFR § 800.11 and will include information related to the Proposed Action APE, assessment of previous surveys, survey design, field methods, extent of coverage, historic properties and/or cultural resources identified, eligibility determinations, assessment of effects, management recommendations, and maps illustrating survey coverage and resource locations. Inclusion of any locations or mapping shared by tribal informants will be contingent on consultation and approval of that data being provided. Cultural resource information will adhere to confidentiality requirements in Section 304 of the NHPA, Section 9 of the ARPA, and the Food, Conservation and Energy Act of 2008 (25 USC 3056). See also Confidentiality Concerns section below (Stipulation X.D.1).

HIP consulting parties will be given 30 calendar days to review reports and provide comments. If no comments are received within that time, Project implementation will proceed according to recommendations presented in the reports or proceed to the next step in the process based on the finding or determination.

C. Annual Consultation Report

By March 31 each year, the Heritage Professional shall provide an annual report on the use of the HIP in the previous year to HIP consulting parties, the Forest Supervisor, and Regional Heritage Program Manager. The Forest will compile one report submission for all activities in the previous year and this will be completed under the direction of the Forest Heritage Program Manager. The annual report that follows the completion of the Project will be the final annual report. If unforeseen circumstances prevent the FS from delivering the annual report to HIP consulting parties, the Agency Official will send a letter to HIP consulting parties at the time the report is due to inform them of the delay and provide opportunities for updating HIP consulting parties on HIP implementation in another forum such as verbally, in person, or virtually. The alternate opportunity for updating HIP consulting parties does not substitute for the annual report, and the Heritage Professional will provide the annual report at the soonest possible date after the original due date, but not more than six months after the due date.

The annual report will include a list of Cultural Resources Stewardship Opportunities (CRSOs) initiated and completed, if applicable, and a list of Project activities and HIP activities completed and initiated in the previous fiscal year. This will include a specific list or summary and description of all proposed actions exempted under Stipulation II.B., as well as results of post-implementation monitoring, if applicable.

- 1) HIP consulting parties may provide comments to the Heritage Professional by May 31 of the current calendar year so that adjustments to reporting methods or procedures can be made prior to the upcoming field season and next reporting period.
- 2) Upon receipt of the Annual Report, any HIP consulting party can request a follow-up meeting to review the implementation of the HIP, discuss the upcoming program of work, and other topics pertaining to the HIP.

VII. Unanticipated Effects and Post-review Discoveries

- A. In accordance with FSM 2360, 36 CFR 800.13, and the USDA Forest Service Intermountain Region Inadvertent Discovery Plan (Appendix B), the HTNF shall notify the SHPO, Indian tribes and the ACHP, as appropriate, when previously unrecorded cultural resources are encountered or unanticipated effects to historic properties are discovered during any project activity occurring under this HIP and will follow the protocols outlined in the regulations cited above.

VIII. Inadvertent Discovery and Treatment of Human Remains

Implementation activities proposed under this project have a low likelihood of encountering human remains, funerary objects, sacred objects, or objects of cultural patrimony. If human remains or funerary objects are encountered at any time during the implementation of the Project, work will stop in the area of the discovery, and the agency shall follow the provisions of the USDA Forest Service Intermountain Region Inadvertent Discovery Plan (Appendix B), and Native American Graves Protection and Repatriation Act (25 U.S.C. 3001), as applicable, and State and local laws as appropriate. The HTNF will work with Tribes through the NAGPRA process for disposition of remains and associated funerary objects, as applicable. These laws are separate from Section 106 of the NHPA, which is the only law applicable to this NPA, and therefore these laws apply to all agency actions and undertakings regardless of whether or not they use this NPA to comply with Section 106 of the NHPA.

IX. Emergency Situations

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

X. Required Administrative Provisions

A. Dispute Resolution Process

- 1) If HIP consulting parties raise disputes during the implementation of the HIP, the Agency Official will convene a meeting or teleconference between all HIP consulting parties to consider their views and seek agreement regarding matters arising in the implementation of the HIP. If disputes cannot be reconciled between the FS and consulting parties of the HIP, the Agency Official or Heritage Professional will refer the matter to the ACHP for their input. Within thirty (30) days of receipt of all pertinent documentation, the ACHP will either provide the FS recommendations regarding the dispute. The FS shall respond in each instance. The Agency Official shall consider any recommendations provided in reaching a decision and notify ACHP and HIP consulting parties of the final decision.

B. Anti-Deficiency Act

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

C. HIP Amendment Process

- 1) If the Project area changes during its implementation or when any consulting party proposes an amendment, the Agency Official will consider amending the HIP in coordination with the Heritage Professional. If the Project area changes, the Agency Official will amend the HIP to include Section 106 activities for those new Project areas.

- 2) When the Project area changes or when an amendment is proposed, the Agency Official will notify and consult with HIP consulting parties. Upon receipt of notification, HIP consulting parties will have ten (10) days to comment on whether an amendment to the HIP is necessary.
- 3) When an amendment is warranted, the Agency Official will provide the HIP consulting parties fifteen (15) days to review the drafted amendment, upon receipt of the draft. If there is a dispute about an amendment, the Agency Official and HIP consulting parties will follow the dispute resolution process in IX.B.
- 4) An amendment of the HIP will go into effect upon signature of the Agency Official, and the FS will provide a copy to HIP consulting parties within thirty (30) days of signing.

D. Confidentiality Concerns

- 1) If a HIP consulting party expresses confidentiality concerns in regards to the HIP development, issuance or implementation, the Agency Official and FS Heritage Professional shall use best efforts to protect sensitive information from disclosure as requested by HIP consulting parties to the extent permitted by federal law, 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 (5 U.S.C. 552). These those statutes have different standards according to the type of resource at issue.

E. Duration and Termination

- 1) The HIP will remain active for a period of ten (10) calendar years from the date of signing unless formally terminated prior to that date. An Agency Official with jurisdiction over the Project may terminate the HIP by providing ninety (90) days' notice to HIP consulting parties, provided the Agency Official consults with HIP consulting parties in good faith and considers their input prior to termination.
- 2) If termination of the HIP or nationwide NPA occurs while individual HIP activities are ongoing for a specific Project area, the HIP consulting parties will continue those individual HIP activities to completion. Prior to continuing work on other Project areas, the Agency Official shall develop and execute a Programmatic Agreement (per 36 CFR 800.14(b)(3)) to incorporate the terms of the HIP. Once the new PA is executed, that PA will govern the Section 106 activities for the Project.

- 3) If the Project is cancelled, the HIP will be terminated.
- 4) If after monitoring or further research, and in consultation with the SHPO or other HIP consulting parties (as applicable), it is determined that properties considered in this document are not affected by activities covered by this HIP, the Agency Official may terminate the HIP as per Stipulation E.1.

XI. Cultural resources stewardship opportunities (CRSOs) integrated.

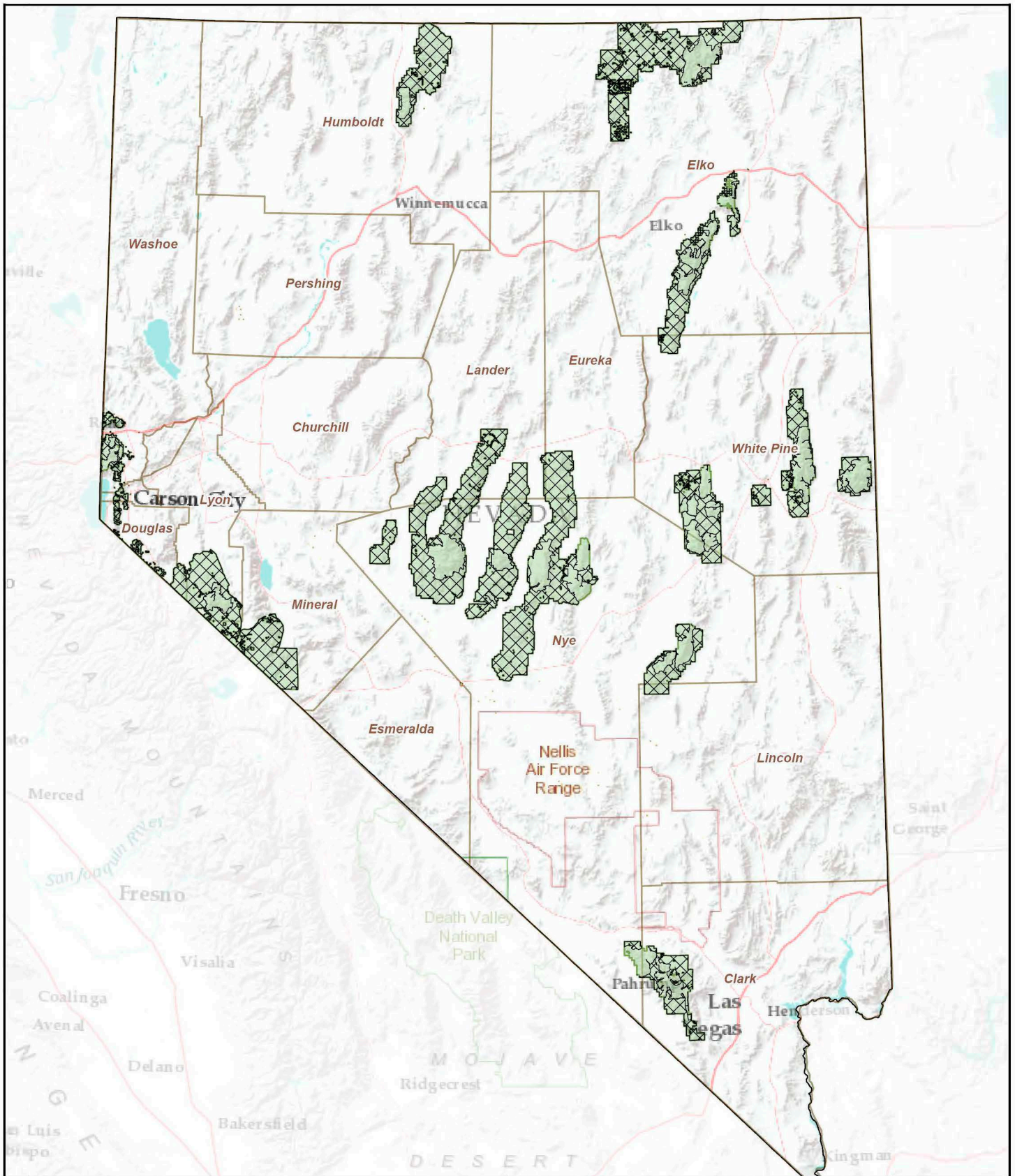
- A. To encourage stewardship outcomes from an early consultation process, the Agency Official has sought HIP consulting party input to identify any CRSO(s) that recognize, preserve, protect, and enhance cultural resources for the greatest benefit to the public and Tribes that *may* be integrated into the Project design.
- B. The Agency Official has not incorporated any CRSOs.

XII. Heritage Implementation Plan Approval

I approve the Humboldt-Toiyabe National Forest Aerial Application of Herbicide Heritage Implementation Plan (HIP) and commit the Forest to fulfillment of its terms.

Jon Stansfield
Forest Supervisor
Humboldt-Toiyabe National Forest

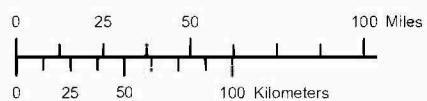
Date



-  Aerial Herbicide Application Project Area - APE
-  Humboldt-Toiyabe National Forest

APPENDIX A

HTNF Aerial Herbicide Project Area Map



Map Date: 3/11/2025
1 inch equals 55 miles
Scale: 1:3,500,000

APPENDIX B

USDA Forest Service Intermountain Region INADVERTENT DISCOVERY PLAN 2019

If unanticipated buried cultural resources or human remains are identified during project activities and construction, the Forest Service will ensure that employees or contractors comply with the following protocols to ensure their proper identification, evaluation, and protection.

Discovery of Cultural Resources

The Project Supervisor or Contractor will immediately:

- Cease all activity within 100ft/30m of the discovery.
- Notify the Forest Archaeologist/Heritage Program Leader, who will notify the SHPO/THPO, Tribes, other consulting parties, and cultural resource consultants assigned to the project.
- Leave all artifacts and materials in place but protect the discovery from further damage, theft, or removal.

The Forest Archaeologist/Heritage Program Leader & designated Heritage Specialists will:

- Document the discovery in a manner to support consultation. Documentation should include, but is not limited to, documenting exposed artifacts and features; mapping the extent of artifacts, features, and cultural horizons; and documenting natural and cultural stratigraphy in open trenches or pits.
- Evaluate the cultural resources for National Register of Historic Places (NRHP) eligibility. If an eligibility recommendation cannot be made based on the data collected during recordation, additional testing may be required to further delineate the nature, extent, and significance of the discovery. Testing will be limited to a sufficient level needed to provide a recommendation of NRHP eligibility.
- If the cultural resources meet NRHP eligibility, the Forest Archaeologist/Heritage Program Leader will develop an action plan, mitigation plan, or emergency treatment plan for the affected cultural resources.

The Forest Archaeologist/Heritage Program Leader will:

- Determine NRHP eligibility and consult with the SHPO and Tribes.

- Ensure the Forest follows the Discovery of Human Remains Protocol below, if the discovery contains human remains.
- Ensure the Forest fulfills the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA), as described in the Discovery of Human Remains protocol below, if associated or unassociated funerary objects or objects of cultural patrimony are discovered.
- Recommend the resumption of work if the cultural resources are determined, in consultation with SHPO/THPO, to be ineligible for the NRHP. Resumption will include appropriate monitoring for further cultural resource disturbances.
- Consult with the SHPO/THPO and consulting parties to avoid, minimize, or mitigate further effects to cultural resources that are determined, in consultation with SHPO/THPO, to be eligible for the NRHP. Mitigation efforts may be contingent upon several factors, including the type and extent of the disturbed resource, the extent of the adverse effect, and whether or not it is possible to avoid further effects to the resource.

Resumption of Work

Work in the immediate vicinity of the discovered materials may not resume until after the cultural resources are evaluated and adverse effects to historic properties have been avoided, minimized, or mitigated. Resumption of work is the Line Officer's decision. In most cases this will be the District Ranger, but in case where human remains are involved it is recommended that the Forest Supervisor make this decision.

Discovery of Human Remains

If human remains or remains thought to be human are identified during project activities and construction, the Forest will ensure that employees or contractors comply with the following protocol in addition to the Discovery of Cultural Resources protocol described above.

The Project Supervisor or Contractor will:

- Ensure that employees or contractors do not take photographs of the human remains out of respect for Tribal concerns and because of law enforcement forensic concerns.
- Be responsible for the security and protection of human remains during NAGPRA consultations, until disposition of the remains is determined.

The Forest Archaeologist/Heritage Program Leader will:

- Notify appropriate law enforcement authorities and/or the County coroner about the human remains.
- Work with law enforcement and/or the County coroner to determine age and affiliation of the human remains.
- Fulfill the requirements of NAGPRA by consulting with affiliated SHPO/THPO, Tribes, and other consulting parties to fulfill the requirements of NAGPRA if law enforcement officials determine the human remains are not of recent age or criminal concern.

The Forest Line Officer will:

- Provide a specialist with expertise in human osteology and human remains to make an in-situ assessment of the remains, under the direction of the Forest Archaeologist/Heritage Program Leader, to document the remains and to determine cultural affiliation that would guide the development of a written Action Plan.
- Assist the Forest Archaeologist/Heritage Program Leader in developing an Action Plan for the evaluation and disposition of the human remains to meet NAGPRA and 36 CFR 800.

Resumption of Work

Work in the immediate vicinity of the human remains may not resume until after the disposition of the human remains is determined and a written binding agreement is executed between the necessary parties in accordance with NAGPRA (43 CFR Part 10.4(e)). Resumption of work is the Line Officer's decision. In most cases this will be the District Ranger, but in case where human remains are involved it is recommended that the Forest Supervisor make this decision upon the advice of the Forest Archaeologist/Heritage Program Leader and law enforcement officers.

APPENDIX C

HTNF Aerial Application of Herbicide Cultural Monitoring Protocol

- I. As per HIP Stipulation I.B.2, the Heritage Professional shall review each Proposed Action to determine an APE and to review the location for known or potential historic properties within that APE.
- II. The Heritage Professional may recommend post-implementation monitoring, in consultation with HIP consulting parties and/or Tribes, in situations where sensitive properties (e.g. rock art or sites with exposed masonry and determined to be eligible or unevaluated for the NRHP) exist within a Proposed Action APE. Monitoring should follow the protocol described here and using the form provided with this appendix.
 - a. Through consultation, the Heritage Professional may decide to monitor all sensitive property types in an APE or a reasonable sample.
 - b. Completed monitoring forms will be submitted to SHPO with the HIP Annual Report (Stipulation VI.C) unless adverse effects are observed and Stipulation V will be followed.
- III. Pre-Implementation Baseline Monitoring
 - a. Sensitive sites recommended for post-implementation monitoring must be subject to a baseline monitoring visit.
 - b. The goal of pre-implementation monitoring is to reflect the status of properties at a point in time prior to aerial herbicide application in order to allow comparative evaluation of the property condition after application.
 - c. Pre-implementation monitoring should establish photo and observation points to be used for each subsequent post-implementation monitoring event.
 - d. Pre-implementation monitoring data will include photographic documentation of specific property features, geospatial data for photo and observation points, and condition notes documented on the monitoring form provided in this appendix.
- IV. Post-implementation Monitoring
 - a. The Project HIP requires post-implementation monitoring of sensitive sites to be completed for three (3) years following treatment. The first post-implementation monitoring event must be completed after initial treatment (as soon as possible, preferably within 30 days and access-dependent). Subsequent post-implementation monitoring will be completed through site visits conducted once per year for a total of two consecutive years following the initial post-implementation visit following treatment, equaling three total monitoring visits.

- b. Post-implementation monitoring should repeat observations and photos established during the pre-implementation visit.
 - c. Potential impacts to note may include staining or other changes in color of site features or changes in texture (previously unrecorded mineral precipitates at or below material surface, delamination, pitting, spalling, etc.).
 - d. Post-implementation monitoring data will include photograph documentation of specific property features, geospatial data for photo and observation points, and condition notes documented on the monitoring form provided with this appendix.
- V. Monitoring of identified sensitive sites in a Proposed Action APE will be continued for three (3) years following initial treatment, if *no adverse effects* are observed.
 - a. If adverse effects are observed during any monitoring visit, and those effects are reasonably attributable to aerial herbicide treatment (the site may be affected by other activities or phenomena not covered by this HIP), then the Agency Official shall follow Stipulation V of the HIP.

Humboldt-Toiyabe National Forest
Aerial Application of Herbicide Project – Cultural Property Monitoring Form

Site Number

Monitor Date

HTNF District

Location (township/range, section, USGS quadrangle)

Monitor Event Type:

- ☐ Pre-Implementation Baseline Visit
- ☐ Post-Implementation Visit
- ☐ Immediate Post-treatment (Year 1)
- ☐ Year 2 ☐ Year 3

Site Condition

☐ **Good** ☐ **Fair** ☐ **Poor** ☐ **Destroyed**

Site Type:

Has there been more than one aerial herbicide application at this site location? If so, how many?

What herbicide/s were applied?

Disturbances

(For baseline visit, list existing impacts and damages, natural and human-caused. For post-implementation visits, potential disturbances might include changes in color, staining, delamination, spalling, mineral precipitations, etc.)

Site Condition Narrative

(For baseline visits, summarize the site condition, setting, and existing threats [human and natural] that may contribute to the overall condition rating [good, fair, poor, etc.]. For post-implementation visits summarize the same observations with details of noted changes contributing to site condition, if applicable)

Are there specific changes that appear related to aerial herbicide application?

☐ Yes

☐ No

Monitored By:

ATTACHMENTS:

- *Photographs* – Provide photos showing key features of the site that can be replicated for each monitoring event. Make sure that some photos show described disturbances.
- *Map/s* – Provide a map or multiple maps showing locations of key features, photo points, and observed disturbances.

Monitoring Photographs
(copy for continuation pages as needed)

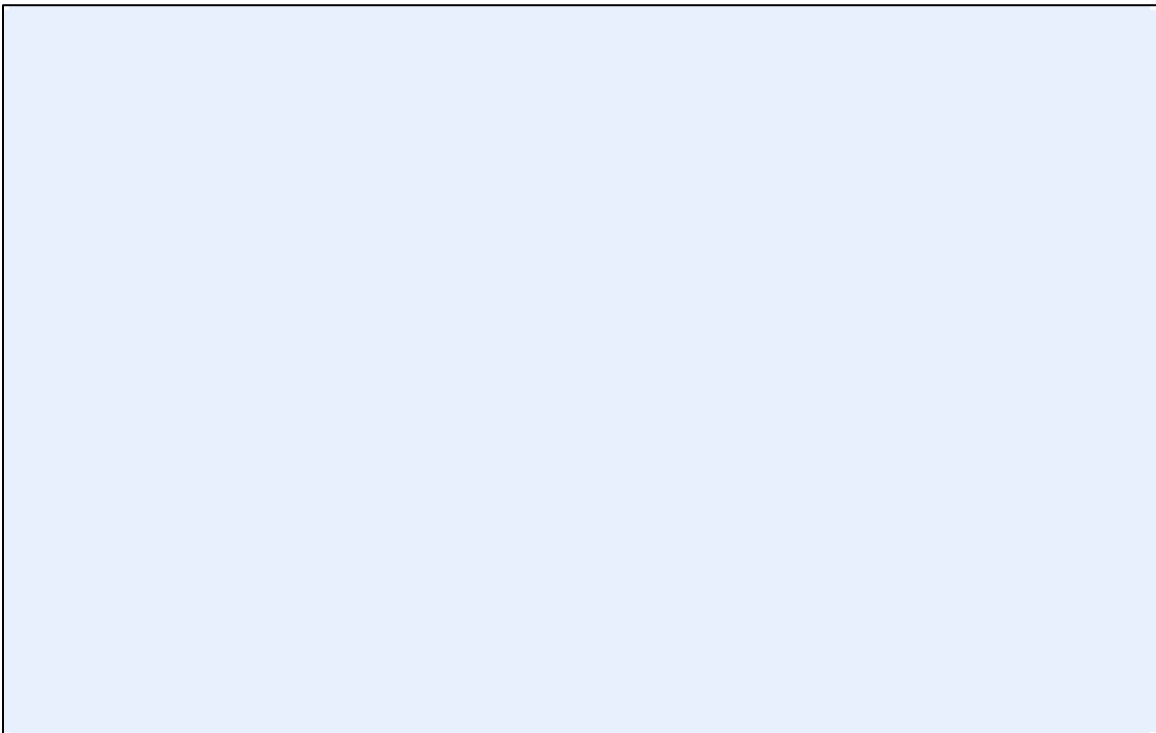


Description:

Direction:

Date:

Photographer:



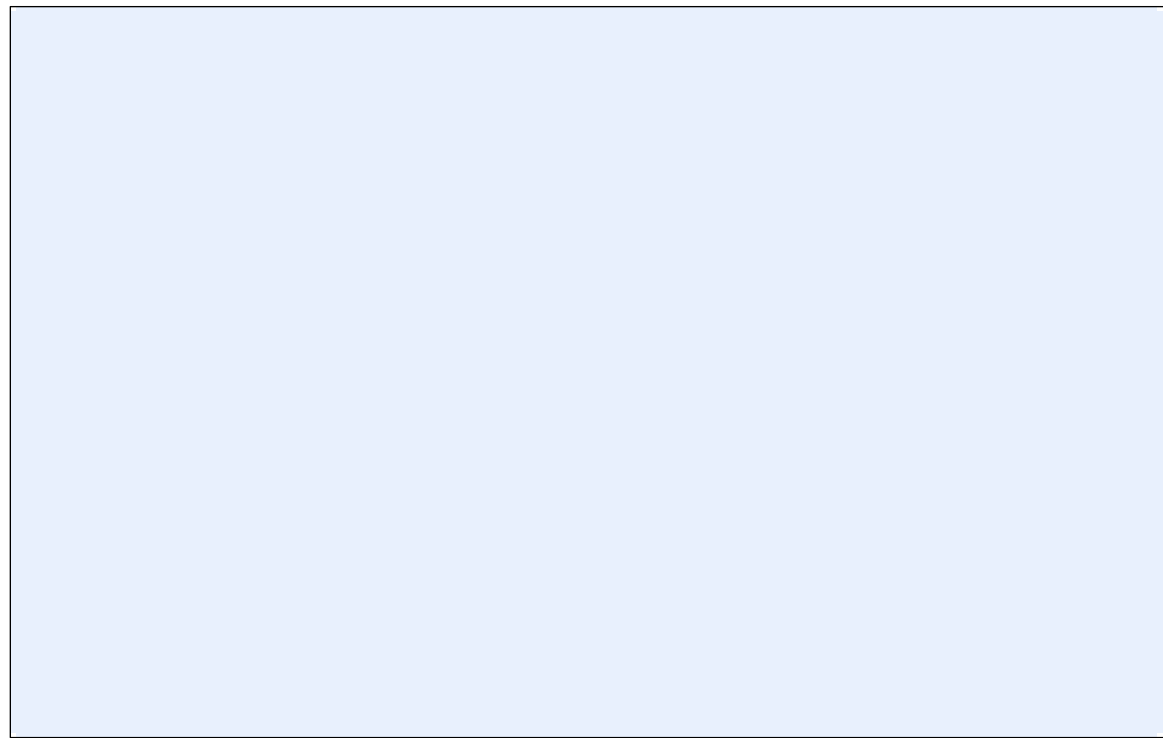
Description:

Direction:

Date:

Photographer:

Monitoring Photographs (continued)

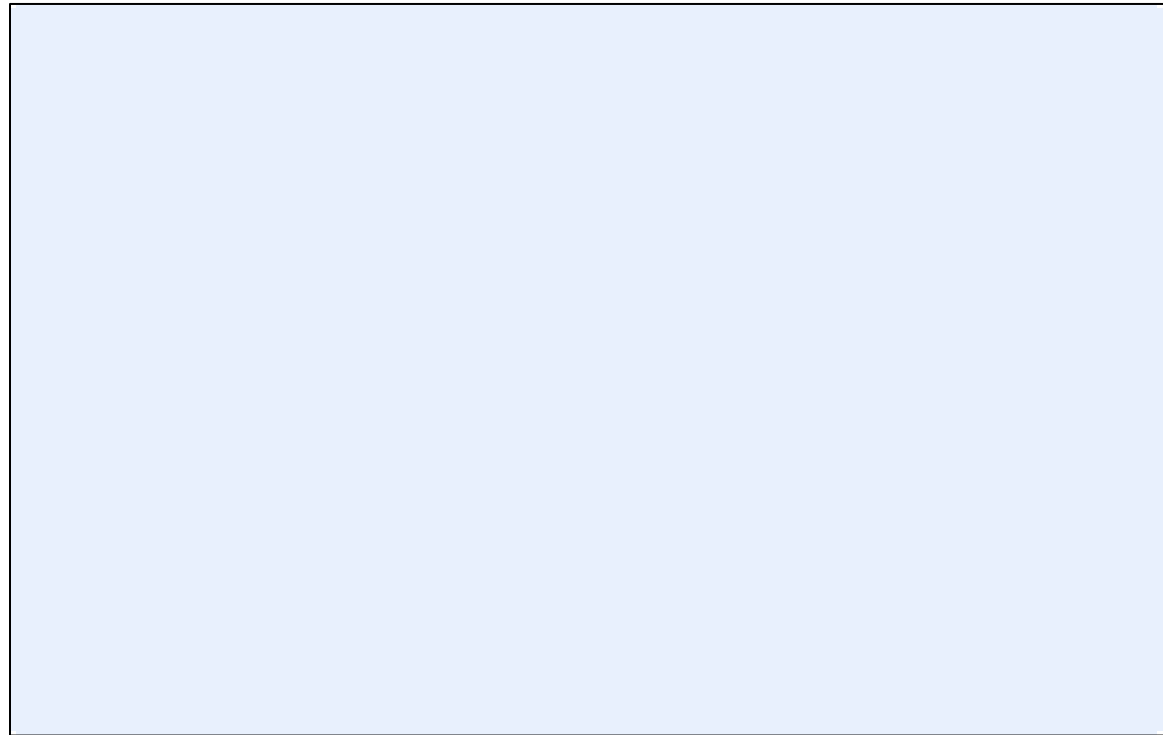


Description:

Direction:

Date:

Photographer:



Description:

Direction:

Date:

Photographer:

APPENDIX D

Aerial Application of Herbicide on the Humboldt-Toiyabe National Forest in Nevada Environmental Assessment.

Excerpt of EA Appendix A. Design Elements - Cultural Resources

CR-1	Coordinate with Forest Service archaeologist prior to aerial application. This consultation should include a timeline that is sufficient to allow for Section 106 compliance and subsequent communication with consulting parties, SHPO and THPOs.	Treatment planning	All treatment areas	Six months prior to finalizing treatment plans	NHPA Section 106
CR-2	Staging of associated ground-support equipment will be located outside of known historic property boundaries (including unevaluated resources) and will not cause new disturbance or be located outside of previously disturbed areas (i.e., existing roads and pull outs and developed sites).	Staging of ground support activities during application	All treatment areas	During treatment	NHPA Section 106
CR-3	Utilize less-impactful application methods where sensitive cultural resources are identified. Coordinate with Forest Service archaeologist to determine appropriate application method.	Determining application tool within sensitive areas during treatment planning	Sensitive areas in any treatment location	Six months prior to finalizing treatment plans	NHPA Section 106