

**MEMORANDUM OF AGREEMENT  
BETWEEN THE BUREAU OF LAND MANAGEMENT, BLACK ROCK FIELD  
OFFICE  
AND THE  
NEVADA STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE ARCHAEOLOGICAL EXCAVATION OF SIGNIFICANT  
INFORMATION AT WAGONTIRE SHELTER**

WHEREAS, the Bureau of Land Management (BLM) intends to issue a permit to the Department of Anthropology, University of California, Chico (the University) to conduct archaeological excavations at Wagontire Shelter (26WA10462/39.22.09.02) (the Project) thereby making the Section 110-driven Project an undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA), 54 U.S.C. § 306108, and its implementing regulations; and

WHEREAS, the BLM plans to issue an Excavation and/or Removal permit to: (1) fully record the site on a Nevada IMACS form prior to beginning any excavations; (2) facilitate the understanding of material recovered from the site in order to further regional archaeological research; (3) to establish the National Register of Historic Places (NRHP) eligibility of the site, and (4) to provide information to assist in its future management; and

WHEREAS, the BLM has defined the Project's Area of Potential Effect (APE) as described in Attachment A; and

WHEREAS, the BLM, in consultation with the Nevada State Historic Preservation Officer (SHPO), has determined that the Project may pose an adverse effect to this unevaluated site; and

WHEREAS, BLM has consulted with tribal governments from the Pyramid Lake Paiute Tribe, the Summit Lake Paiute Tribe, the Fort Bidwell Indian Community, the Susanville Rancheria, the Cedarville Rancheria, and the Reno-Sparks Indian Colony and invited them to participate in this Memorandum of Agreement (MOA) as concurring parties (referred to collectively as the Tribes); and

WHEREAS, in accordance with Component 5 of the *Programmatic Agreement among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act*, (February 2012), BLM has not notified the Advisory Council on Historic Preservation (ACHP) of its intention to issue the excavation permit as it does not meet the thresholds that call for ACHP notification; and

NOW, THEREFORE, BLM and the SHPO agree that the Project shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

## STIPULATIONS

BLM shall ensure that the following measures are carried out:

### I. EXCAVATION PLAN IMPLEMENTATION

- A. The BLM, in consultation with the SHPO, has prepared an Excavation Plan to conduct data collection that is consistent with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 C.F.R. 44716-37) and the ACHP's guidance on archaeology (2009).
- B. The University shall apply to the BLM Nevada State Office for an ARPA permit to conduct the excavations at 26WA10462/39.22.09.02.
- C. Once an ARPA permit is issued, the University shall apply to the BLM Black Rock Field Office for a Fieldwork Authorization (FA). Once the BLM issues this FA, fieldwork may commence.
- D. The University shall complete the excavation as outlined in the Excavation Plan (Attachment B; *Wagontire Springs Cave (BLM Site No. 39.22.09.02): Exploring Holocene Adaptations in High Rock Canyon*) and shall make a recommendation of NRHP eligibility for 26WA10462/39.22.09.02 in the excavation report.

### II. RECORDATION OF 26WA10462/39.22.09.02

- A. The University shall fully record 26WA10462/39.22.09.02 in keeping with the BLM Guidelines found at <https://www.blm.gov/sites/blm.gov/files/documents/files/NV%20Guidelines%20and%20Standards%20for%20Archaeological%20Inventory%202012.pdf>.
- B. If the University determines that the mapped location as depicted in Attachment A does not accurately reflect the boundaries of 26WA10462/39.22.09.02, the University shall produce an updated map and submit this to the BLM.
- C. BLM, in consultation with the SHPO, shall review the updated map and if determined to be accurate will replace the original Attachment A with the updated map in this MOA.

### III. FUTURE ARCHAEOLOGICAL TESTING OR DATA RECOVERY EFFORTS AT 26WA10462/39.22.09.02

The BLM, in consultation with the SHPO, agree that the results of the testing undertaken by the University in accord with the Excavation Plan may result in future BLM decisions to conduct additional testing or excavation. In the event that the BLM determines that additional future fieldwork is necessary, review and implementation of any plan for such

work will proceed as follows:

- A. The BLM will prepare a draft testing and/or excavation plan that is consistent with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 C.F.R. 44716-37) and the ACHP's guidance on archaeology (2009).
- B. The BLM shall submit a draft testing and/or excavation plan to the Tribes for a thirty (30) day review period from receipt.
- C. The BLM shall revise a draft testing and/or excavation plan to address the comments provided by the Tribes as necessary.
- D. The BLM shall submit a draft testing and/or excavation plan to the SHPO for review. The SHPO will review and comment on the draft document within thirty (30) calendar days of receipt. If the SHPO does not respond within thirty (30) calendar days, the BLM may assume concurrence and implement the plan consistent with the process described in Stipulation I.B-E above.
- E. The BLM will take into consideration any comments provided by the SHPO on a draft testing and/or excavation plan and shall revise as appropriate.
- F. The BLM shall submit a final testing and/or excavation plan to the SHPO and the Tribes and may implement the plan consistent with the process described in Stipulation I.B-E above.
- G. The BLM shall attach all future final testing and/or excavation plans to this MOA. All such plans will be designated sequentially and individually starting with Attachment C.

#### **IV. PUBLIC AND TRIBAL INVOLVEMENT**

- A. The BLM will offer public tours of the research efforts during the excavations, if there is interest.
- B. The BLM will provide any tribal members interested in participating with an opportunity to be involved in the excavations. BLM made all tribal governments aware of this opportunity for tribal members to participate during formal consultations.

#### **V. DISCOVERIES**

The discovery of NAGPRA-related human remains or objects during implementation of the Excavation Plan have been addressed by the discovery plan in the Excavation Plan. In the event of such discoveries, BLM would comply with the NAGPRA regulations at 43 CFR Part 7, Sections 10.3 and 10.4 governing intentional archaeological excavations and inadvertent discoveries, respectively.

If BLM, or the University, makes a discovery that cannot be addressed by the Excavation Plan,

then the signatories and the Tribes shall consult to determine an appropriate course of action. Following consultation, the BLM shall prepare an action plan to address the specific discovery.

## **VI. CURATION**

All reports, records, photographs, maps, field notes, artifacts, and other materials collected or developed for the undertaking in the course of the data recovery will be curated at the Nevada State Museum, Carson City.

## **VII. BLM REVIEW OF KEY INDIVIDUALS INVOLVED**

The BLM will ensure that all work associated with this project is carried out under the supervision of archaeologists meeting Secretary of Interior's professional qualifications standards for archaeology and who are permitted to work in the State of Nevada on BLM Lands in Washoe, Pershing, and Humboldt Counties.

## **VIII. REPORTING**

- A. The University shall submit an updated IMACS site form and letter report briefly describing the results of the excavation in accord with Stipulation II above within sixty (60) days from the completion of the fieldwork.
- B. The University shall submit the draft excavation report, the completed IMACS site record in accord with Stipulation II above, and the NRHP recommendation to the BLM within two (2) years of the completion of the fieldwork as described in the Fieldwork Authorization.
- C. The BLM shall ensure that all such reports are consistent with contemporary professional standards, the Department of Interior's Formal Standards for Final Reports of Data Recovery Programs (48 CFR 44716-44740), and the current standards and guidelines issued by the Bureau of Land Management, Nevada State Office.
- C. The BLM shall ensure that a draft excavation report is completed and provided to the SHPO and any Tribes within two (2) years after the completion of the fieldwork, unless otherwise negotiated. The submission shall include a determination of NRHP eligibility for 26WA10462/39.22.09.02.
- D. The SHPO will review the draft report within thirty (30) calendar days of receipt. If the SHPO does not respond within thirty (30) calendar days, BLM may assume concurrence and finalize the draft excavation report.

## **IX. DURATION**

This MOA shall become effective on the date that the last Signatory signature is affixed below and shall remain in effect until terminated as provided in Stipulation XII below or for ten (10) years whichever is sooner. This MOA will expire if the activities described in the Excavation

Plan are not carried out within five (5) years from the date of its execution. Prior to such time, BLM may consult with the SHPO to reconsider the terms of the MOA and amend it in accordance with Stipulation XI below.

## **X. DISPUTE RESOLUTION**

Should any signatory or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, BLM shall consult with such party to resolve the objection. If BLM determines that such objection cannot be resolved, BLM will:

- A. Forward all documentation relevant to the dispute, including the BLM's proposed resolution, to the ACHP. The ACHP shall provide BLM with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, BLM shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, the SHPO, and concurring parties, and provide them with a copy of this written response. BLM will then proceed according to its final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, BLM may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, BLM shall prepare a written response that takes into account any timely comments regarding the dispute from the SHPO and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.
- C. BLM's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

## **XI. AMENDMENTS**

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

## **XII. TERMINATION**

If any signatory to this MOA 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 XI, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatory.

Once the MOA is terminated, and prior to work continuing on the undertaking, BLM must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. BLM shall

Execution of this MOA by the BLM and SHPO and implementation of its terms evidence that BLM has taken into account the effects of this undertaking on historic properties.

SIGNATORIES:

Bureau of Land Management

Mark E Hall Date 14 May 2018  
Mark Hall, Black Rock Field Manager

Nevada State Historic Preservation Office

Rebecca Palmer Date 21 May 2018  
Rebecca L. Palmer, State Historic Preservation Officer

CONCURRING PARTIES:

Pyramid Lake Paiute Tribe

\_\_\_\_\_ Date

Summit Lake Paiute Tribe

\_\_\_\_\_ Date

Reno Sparks Indian Colony

\_\_\_\_\_ Date

Cedarville Rancheria

\_\_\_\_\_ Date

Susanville Rancheria

\_\_\_\_\_ Date

Fort Bidwell Indian Community

\_\_\_\_\_ Date

## Attachment A. Project Location



This attachment contains information that may be considered privileged and that may be exempt from Freedom of Information Act (FOIA) requests.

Please consult the appropriate federal agency concerning this attachment for further information.

Attachment B: Excavation Plan

## **REVISED EXCAVATION PLAN**

### **Wagontire Springs Cave (BLM Site No. 39.22.09.02): Exploring Holocene Adaptations in High Rock Canyon**

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Assistant Professor

Director of the Archaeological Research Program

Department of Anthropology, CSU, Chico

#### **Introduction**

CSU, Chico remains committed to the efforts of assisting the Bureau of Land Management's compliance needs in historic preservation combined with broader academic pursuit of understanding prehistoric land use strategies in the Surprise Valley and adjacent uplands. In coordination with the BLM's Applegate Field Office and Black Rock Field Office, I propose preliminary excavation in High Rock Canyon and the Wagontire Springs Cave site as part of an effort to initiate an annual field school sponsored by CSU, Chico. This research effort will serve to renew academic research in the region, train future generations of archaeologists, and seek to disseminate these studies with the archaeological community and public through conference participation, public lectures, and subsequent publications.

#### **Background**

##### *Site Location*

The Wagontire Springs Cave site is located southeast of Cedarville, California off of Nevada State Highway 34 on the northeastern margins of High Rock Canyon Wilderness. The site lies [REDACTED]. It was originally recorded in 1976 by Melinda Leach and M. Mitchell of the BLM's Applegate Field Office (Fig. 2). It consists of one cave (no daylight emitted at furthest depth) and five rockshelters with visible evidence of partial looting of the cave.

Much of the volcanic material that dominates the surface around Wagontire Springs Cave is associated with the volcanic geologic formation called the High Rock Caldera Complex that was active during the Miocene (Coble and Mahood 2014). Approximately 16.6 to 15.6 million years ago, High Rock Caldera was one of four calderas active during this time that, along with the McDermitt volcanic field to the north, projected large amounts of rhyolite and basalt in a northeast trajectory toward the Columbia River basin. Accompanying these mafic flows were pumice, ash falls, lahars, phreatomagmatic deposits, and well-bedded lake deposits. More recent sediment deposition from localized alluvial, colluvial, and eolian transport overlay the surface geologic formation.

The vegetative and wildlife communities surrounding Wagontire Springs Cave are consistent with the common sagebrush steppe ecosystem found in northwest Nevada. Big (*Artemisia tridentata*) and low sagebrush (*Artemisia arbuscula*) are complemented by the less prolific shadscale (*Atriplex canescens*), spiny hopsage (*Grayia spinosa*), and various bunch grasses (Leach 2014). Wildlife common to this area consists of large game mammals (pronghorn, mule deer, Bighorn sheep), hares and rabbits, and small mammals. Sage grouse are the most common bird, but nearby alkaline lakes attract a wide variety of migratory birds.

Ethnographically, this region is associated with the Northern Paiute peoples who arrived here within the past (Leach 2014) as part of the Numic Expansion (Bettinger and Baumhoff 1982). While the timing of this cultural transition is not clear, Hildbrandt et al. (2016) argue that it likely correlates with the deleterious impact of the Medieval Climatic Anomaly (MCA) that led to a decline in settlement across the Great Basin by around 1000 BP. Although they point out that population densities along the western margin of the basin were better situated than populations further east, these pre-Numic peoples likely faced harsh conditions during the MCA that may have made them susceptible to competition. Resistance to the newly arrived Northern Paiute likely was slowed by this relatively higher native population, which can be observed from the lower frequencies of Desert Side Notched and Cottonwood Triangular Projectile Points, common among Numic foragers, compared to that of similar latitudes to the east.

## **Research Themes**

Surprise Valley, Duck Flats, Massacre Lake, and the surrounding uplands, including High Rock Canyon, are germane to three main research questions in Great Basin archaeology: New World colonization, adaptation to climate change, and Numic population replacement throughout the basin. The first question revolves around the timing and origins of the first people to the

Americas, and the Great Basin exhibits both artifacts suites that reflect the coastal migration hypothesis in the form of stemmed points and crescents as well as the fluted point tradition reflecting the Clovis-first hypothesis. There has been an exhaustive amount of time and research that have explored this issue (e.g. Connolly, T. J. 2017, Dillehay et al. 2017, Erlandson 2013, Jenkins et al. 2012, Smith and Barker 2017, Surovell 2003), but it is less likely that this site will possess occupations dating back to the terminal Pleistocene. Leach's (2014) report on the excavations at Serendipity Cave located to the northwest of Wagontire Springs Cave did not yield datable materials, but the diagnostic assemblage of projectile points show a Late Holocene occupation. Although there is some evidence of Middle Holocene occupation, the majority of the points are Elko, Rosegate, & Desert Side Notched types.

Climate change and subsequent human adaptation has been a long-standing focus of Great Basin archaeology for the better part of the few decades. It remains a vital topic due to the severe climatic oscillations that hastened during the terminal Pleistocene and led to what some archaeologists have called an abandonment of the basin during the Middle Holocene (Louderback et al. 2011). Measured by the frequency of archaeological sites with chronological markers, it is only by 3500 BP that we see a rebound in the occupation of much of the basin. Yet, in Surprise Valley a different story unfolds. Excavations of multiple sites along lake margins (O'Connell and Inoway 1994) reveal that during the Middle Holocene people actually invested more in their residences and became more sedentary. With the relatively reliable supply of potable water delivered from the Warner Mountains to the west, O'Connell argued that the locale actually provided greater resource stability that led to a reliance on marsh resources; something that becomes dominant beginning at the early part of the Late Holocene elsewhere in the basin (see Kelly 1997). What is less understood is the nature of occupation beyond lowland areas such as High Rock Canyon, Massacre Lake, Surprise Valley, and Duck Flats.

The third research theme is that of the Late Prehistoric migration and population replacement proposed by Numic expansion hypothesis (Bettinger and Baumhoff 1982). With the recent publications of Hildebrandt et al. (2016) and Bettinger (2015), there has been a renewed interest in the hypothesis that proposes that the broad-based subsistence strategies of the Numic peoples outcompeted existing groups that relied more on mobility than intensification. Some genetic evidence supports Bettinger's hypothesis that Numic people replaced Archaic populations (Kaestle and Smith 2001, but also see Cabana et al. 2008), and Hildebrandt et al.'s (2016) expansive survey and testing along the Ruby pipeline corridor reveals that sites with Numic diagnostic artifacts (e.g. Desert Side Notched Projectile Points) are not found in the same location as earlier occupations. I believe that testing this observed pattern in the proposed

project area is a priority, and it equally important to see what resources or geographic resources are leading to the shift in occupation.

High Rock Canyon and adjacent interior tracts hold significant potential to address each of these research themes, but there is currently a shortage of academic research. Outside of the Ruby Pipeline project completed by Far Western ARG (Hildebrandt et al. 2016), significant contributions for this region are over 25 years old (e.g. Leach 1988, Creiger 1991, Layton and Thomas 1979). In this time, new innovative analytical approaches have been introduced, and contract archaeology has advanced our understanding of prehistoric occupations. What is needed is a renewed interest in this region to wed CRM findings with the broader archaeological themes outlined above, and it is my intent to do so with the upcoming excavations at Wagontire Springs Cave.

## **Methodology**

The first research project sponsored by CSU, Chico and the eventual archaeological field school focuses on the Wagontire Springs Cave. Tucked in High Rock Canyon, the site was first recorded in 1976 and only recently rerecorded in 2015. In both visits, survey crew noted the presence of looting at the mouth of the cave and an adjacent rockshelter. It is not clear if additional looting occurred since the initial recording, or if the site has remained untouched since the initial illegal activities. Nevertheless, the looter activity provides clear evidence that the primary cave possesses (Feature 1 in the 2015 IMAC site form) subsurface deposits near the cave opening. What is less clear is the extent of the cultural deposits, time of occupation, longevity of the use, and the site function. The 2015 site update suggests that cultural deposits are only 15 cm deep, but it is unclear what criteria was used to determine this. Based on my own site visit, the depth estimate may be based on the maximum depth of the disturbed floor by looting. Although it is certainly possible that the floor is only 15 cm below the current surface, it is also possible that the looters stopped upon hitting roof fall, and the depth could be significantly deeper.

### *Field Methodology*

The first step will be the mapping of local topography and diagnostic artifacts found within the site boundaries. This will be accomplished using GPS mapping and drone captured orthophotographs. Using Emlid Reach GPS receivers with a dedicated base station, we will map the openings of the cave and rockshelters, diagnostic artifacts, and large temporary control points. The control points will serve to georeference the drone imagery, which will then be

converted into a large scale map of the site and the immediate surroundings. Diagnostics found during the mapping will be collected and curated along with the excavated materials.

Beginning in 2018, a small crew of CSU, Chico students and I perform preliminary excavations to determine the nature of the cultural deposits. Although our excavations will focus on the cave deposits of Feature 1, the direct and indirect Area of Potential Effect (APE) will extend to the entire area of the site boundary, which Thomas and Matthews (2015 site update) estimated encompassed 15,380 m<sup>2</sup> (3.8 acres). We will arbitrarily place between four and six 1 m by 1 m test units within the cave, which will result in an estimated one cubic meter of sediment disturbed.

Since we currently do not know the extent and integrity of the cultural deposits, our initial excavations will dig in 5 cm arbitrary levels. If the artifact counts prove to be significant (> 25 artifacts per level), we will begin to dig these units in quads (50 cm by 50 cm within the units) to help direct where to place additional units in the future. All sediments will be screened through 1/8<sup>th</sup> mesh and all artifacts and ecofacts will be collected for laboratory analysis at CSU, Chico. Artifacts and ecofacts found *in situ* will receive unique Field Numbers, and materials recovered in the screen will receive a field number reflecting its unit and level. Efforts will be made to separate out plant, faunal, and lithic materials within the screens to protect organic remains. A mixture of B-72 and acetone will be used to stabilize fragile large bones, and casting materials will be used when necessary. All potential features will be mapped and photographed. If intact features are encountered, they will be bisected; where half of it will be excavated and screened separately, and the other half will be collected as a bulk sample for macrobotanical analysis. Upon reaching two sequential sterile levels, each unit will be lined with black plastic and backfilled.

The goals of the 2018 fieldwork is to determine the age of occupation, the stratigraphy, and spatial distribution of cultural material. To address the age of occupation, I will be relying on the presence of diagnostic artifacts, but I also have a pending CSU, Chico University Special Endowment Award proposal to fund four AMS radiocarbon dates. Chronological control will help determine what research themes will be most applicable to Wagontire Springs, and therefore help determine direction of the future research design. In addition to chronology, particular attention will be paid to the stratigraphy present in the profiles of the test units, which will be used to replace the arbitrary levels with natural stratigraphic horizons in subsequent field seasons. Radiocarbon assays will be taken from the profiles whenever possible to closely link the sequence of deposition with time markers. Finally, the distribution of cultural material within the test units will help determine how much of the estimated 60 m<sup>2</sup> of cave-floor deposits need to be investigated.

### *Procedures for Uncovering Human Remains*

In the event that human remains are encountered, we will comply with the existing protocols outlined in the Nevada Revised Statutes (NRS 383.150-353.190) that pertain to the procedures for compliance with PL 101-601 of the Native American Graves and Repatriation Act. Inadvertent exposure of remains during excavation will lead to the halting of further digging, and the PI will reach out to BLM Black Rock and Applegate Field Offices, the Washoe County Coroner, the Nevada State Preservation Office, the Tribal Historic Preservation Office, and all others as directed.

### *Laboratory Analysis*

All culturally-related materials recovered from excavations of Wagontire Springs Cave will be returned to CSU, Chico's Archaeology Laboratory for analysis. All artifacts will be bagged in 4 mil plastic bags and provided an acid free paper label indicating the ID, provenience, and basic artifact information. Analysis will center on examining the lithic assemblage, faunal assemblage, and macrobotanical remains. The lithic assemblage will detail the composition of the tool and debitage assemblages as well as perform pXRF obsidian sourcing for all tools and a subsample of the debitage. The faunal assemblage and the bulk sediment samples from features will identify the taxa present.

The laboratory analysis will seek to address questions of site function, mobility, and subsistence. Site function will derive from the composition of the tool assemblage and stage of reduction exhibited in the debitage and core assemblages. Mobility will focus primarily on lithic procurement represented by obsidian sourcing and macroscopic sourcing of cryptocrystalline silicates. Finally, subsistence questions will look at the relative frequencies of taxa or size classes of species present to indicate the dominant strategies employed by site occupants. Given sufficient samples throughout the stratigraphic sequence, I hope to address whether there are changes over time. Whether this site represents a synchronic single-occupation or a diachronic record of multiple occupations over a significant period of time will also help shape the research design for subsequent years.

Upon the completion of the excavations at Wagontire Springs Cave, the materials will be accessioned and curated with the Nevada State Museum. Copies of all field excavation forms, field notes, artifact analysis tables, AMS Dating reports, and the artifact catalog will be turned over to the NSM Curation Facility along with the assemblage.



## Conclusion

The archaeology of the High Rock Canyon and surrounding region offers a unique opportunity to potentially touch on three intriguing research themes that have long been a focus of North American prehistory. From questions of the first peoples to questions of population replacement, this region offers an opportunity to explore human innovation and adaptation to highly variable climatic conditions over the past 12,000 years. My goal is to contribute to this rich and valuable record of Native American prehistory.

The excavations at Wagontire Springs represents the first effort to further explore one of the cultural resources long known about, but one that remains unexplored. Previous surveys by CSU, Chico's Archaeological Research Program in the neighboring Bare Allotment indicate that hunting is the dominant activity visible from surface reconnaissance and archaeological site records. Meanwhile, Leach (2014) suggests that domestic activities such as plant processing at Serendipity Shelter was evident from over seventy groundstone fragments and 23 ceramic grayware sherds from the spoils in front the shelter. The potential for well-preserved and intact cultural deposits in Wagontire Springs can further evaluate land use patterns in the region.

From an agency perspective, I hope to provide an account of the prehistoric occupation that contributes to the management and protection of this cultural resource. In particular, does the site possess *in situ* cultural deposits and does the site qualify for the National Register of Historic Places under Criterion D. In closing, I believe this is an opportunity to promote the importance of the archaeological record of the northwestern Great Basin beyond a heavy emphasis on the Paleoindian period that has garnered most of the attention of academia. In doing so, this project will serve to promote student-led research projects, disseminate the results with interested parties, and engage local tribal governments about the results of this study.

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