

**BEST PRACTICES:  
MANAGING TRADITIONAL RESOURCES  
ON DEPARTMENT OF DEFENSE LANDS**

**DoD Legacy Resource Management Program Project No. 08-406**

*by*

Nancy A. Kenmotsu  
Eric Hansen  
Sherri Wenzlau

*with Foreword by*

Ed Naranjo, Confederated Tribes of the Goshute Reservation

*and Afterword by*

Richard Arnold, Pahrump Paiute Tribe

Principal Investigator  
Nancy A. Kenmotsu, Ph.D.

*for*

Department of Defense  
Legacy Resource Management Program



MISCELLANEOUS REPORTS OF INVESTIGATIONS  
NUMBER 488  
Geo-Marine Inc.  
2201 K Avenue, Suite A2  
Plano, Texas 75074

January 2012



# TABLE OF CONTENTS

|  |      |
|--|------|
| ACKNOWLEDGMENTS .....  | xi   |
| PREAMBLE .....   | xiii |
| FOREWORD: DIVERSE PERSPECTIVES .....   | xv   |
| EXECUTIVE SUMMARY .....  | xvii |
| Background, Objective, and Goals.....  | xvii |
| Results.....   | xvii |
| CHAPTER 1. INTRODUCTION .....  | 1    |
| Background and Purpose .....   | 1    |
| Methodology .....  | 5    |
| Efficiency through a Shared Understanding .....  | 7    |
| A Clarification of Terms .....   | 9    |
| Summary .....  | 13   |
| CHAPTER 2. BEST PRACTICES TO IDENTIFY, EVALUATE, AND MANAGE<br>NATURAL RESOURCES IMPORTANT TO TRIBES .....   | 15   |
| Part 1: Planning to Identify and Manage Natural Resources Important to Tribes .....  | 15   |
| Best Practice 1: NRMs and CRMs develop and maintain a thorough<br>understanding of pertinent laws, regulations, Executive Orders, and DoD<br>policies to ensure that recommendations to installation commanders are legally<br>defensible and meet DoD government-to-government consultation requirements..... | 16   |
| Laws, Executive Orders, and Policies.....  | 16   |
| Best Practice 2: The CRM, NRM, and other installation personnel, as appropriate<br>are familiar with the treaty rights of the affiliated tribes to ensure that policies<br>and programs take into account those rights.....  | 18   |
| Best Practice 3: The CRM is familiar with the history and traditions of each<br>consulting tribe. ....   | 21   |
| Best Practice 4: The installation develops a Native American consultation process<br>that meets legal requirements and its mission.....  | 23   |
| Best Practice 5: The installation undertakes a study to identify tribes affiliated<br>with its managed lands.....  | 27   |

Table of Contents  
(cont'd)

|   |    |
|---|----|
| Best Practice 6: The installation acknowledges shared issues with tribes when they are encountered during consultation about natural resources of importance to tribes. ....                          | 30 |
| Dividing the Land .....   | 30 |
| Using the Land.....   | 31 |
| Distance Matters and the Costs of Consultation .....  | 32 |
| Best Practice 7: The installation manages confidentiality, an issue of concern to tribes, by discussing it with tribes during project or general management planning. ....                            | 33 |
| Best Practice 8: The CRM and NRM use existing DoD contracting best practices to achieve the desired outcomes that were established during project or program planning.....                            | 36 |
| Part II: Best Practices for Identifying, Evaluating, and Managing the Resources .....   | 37 |
| Identifying the Resources .....   | 37 |
| Best Practice 9: Because the identification of natural resources of concern to tribes takes time, the process to identify them is managed through the planning process.....                           | 38 |
| Best Practice 10: Through consultation the installation and the tribes establish the goals and methods for identification of resources to improve outcomes and budget adequate time and funding ..... | 40 |
| Best Practice 11: The evaluation of which natural resources are important to tribes is made by the tribes.....  | 43 |
| Best Practice 12: The management of the natural resources of concern fits with the installation’s mission. ....   | 44 |
| Best Practice 13: Management of resources of concern to tribes is carried out with open dialogue and frank discussion during consultation. ....   | 46 |
| Best Practice 14: The CRM and NRM determine whether natural resources of concern can be prioritized to facilitate their management.....   | 50 |
| Summary .....   | 51 |
| CHAPTER 3. CONCLUSIONS .....  | 55 |
| Recommendations for Future initiatives .....  | 61 |
| Final Recommendation .....  | 63 |
| AFTERWORD: THE NELLIS AFB INDIAN PROGRAM, A CASE STUDY FROM THE TRIBAL PERSPECTIVE .....  | 67 |
| ACRONYMS.....   | 73 |
| REFERENCES CITED.....   | 75 |

Table of Contents  
(cont'd)

APPENDICES:

|   |     |
|---|-----|
| A. Great Basin Ecological Model .....   | A-1 |
| B. Summary of Laws, Executive Orders, Policies.....   | B-1 |
| C. Fort Bliss Native American Consultation, a Standard Operating Procedure.....   | C-1 |
| D. Useful Protocols from Federal Highway Administration/Pennsylvania<br>Department of Transportation.....                         | D-1 |
| E. A Native American Resolution from the Nevada Test Site.....  | E-1 |
| F. Suggested Language for Integrated Cultural Resource Management Plans<br>and Integrated Natural Resource Management Plans ..... | F-1 |



## LIST OF FIGURES

|     |   |    |
|-----|---|----|
| 1.  | View of the Great Salt Lake from lands managed by Hill Air Force Base .....   | 2  |
| 2.  | Medicine Mounds, geological features located in the rolling plains in Hardeman County, Texas, are a traditional cultural property for the Comanche Nation ..... | 7  |
| 3.  | Cover of Kari (2006) report: Lime Village cemetery, ca. 1935–1938 .....   | 12 |
| 4.  | Map of Washington and Oregon showing ceded lands of the Yakama and other tribes and the areas of their modern reservations .....                                | 19 |
| 5.  | White Bluffs, within the Hanford Reach of the Columbia River .....  | 20 |
| 6.  | A seep mound on Indian Springs Valley dry lake, Nevada Test and Training Range .....  | 39 |
| 7.  | Three Rivers rock art panel in southcentral New Mexico showing a bighorn sheep impaled by hunters' spears .....   | 48 |
| 8.  | Hill Air Force volunteer recovery team enroute to clean up 30-year old plane crash on lands of the Goshute Tribe .....  | 53 |
| 9.  | Nellis AFB and its relationship to Hill AFB and the physiography of the Great Basin .....   | 68 |
| 10. | Site 42BO0676 on the Utah Test and Training Range, looking southwest .....  | 70 |
| 11. | Blazing star or stickleaf .....   | 70 |





## **LIST OF TABLES**

|                               |    |
|-------------------------------|----|
| 1. Types of Sacred Sites..... | 12 |
|-------------------------------|----|



## ACKNOWLEDGMENTS

This project benefited greatly from the advice and support of a large number of people. Foremost among them were the people from the Northwest Band of Shoshone Nation, Confederated Tribes of the Goshute Reservation, Pahrump Paiute Tribe, Duckwater Shoshone Tribe, Bishop Paiute Tribe, Paiute Indian Tribe of Utah, and Fort Mojave Indian Tribe of Arizona, California, and Nevada. All of these people were generous with their time, patiently took long rides with us across the desert, and stayed late at meetings to tell us things we needed to know. Together and separately, they offered important insights into how to establish a program to identify the natural resources that are of concern to Indian people. They also taught us again why such a program is vital. We are indebted to each of the following:

Richard Arnold—Pahrump Paiute Tribe  
Felton Bricker, Sr.—Fort Mojave Indian Tribe of Arizona, California, and Nevada  
Sandra Bricker—Resident of Mohave Valley, Arizona  
Gerald Kane—Bishop Paiute Tribe  
Patty Timbimboo-Madsen—Northwest Band of Shoshone Nation  
Helen Timbimboo— Northwest Band of Shoshone Nation  
Leland Pubigee— Northwest Band of Shoshone Nation  
Dorena Martineau—Paiute Indian Tribe of Utah  
Maurice Frank-Churchill—Duckwater Shoshone Tribe  
Ed Naranjo—Confederated Tribes of the Goshute Reservation  
Other Members of the Confederated Tribes of the Goshute Reservation

Two of these individuals—Richard Arnold, Pahrump Paiute Tribe and Ed Naranjo, Confederated Tribes of the Goshute Reservation—provided their perspectives on the importance of the identification of natural resources of importance to tribes. One of these contributions is in the *Foreword* to the volume; the second is presented as the *Afterword*. Their contributions are presented here as their thoughts, not ours; we did not direct them in any way other than asking for their contributions related to the identification of natural resources of concern to tribes. These are their diverse views. We are grateful for these important contributions.

Keith Myhrer, Cultural Resource Manager (CRM) at Nellis Air Force Base; Jaynie Hirschi, CRM at Hill Air Force Base; and Russell Lawrence, Natural Resource Manager at Hill Air Force Base also provided clear and sound advice, drawing from their own experiences in developing these types of programs at their installations. They also took the time from their busy schedules to provide photographs and offer comments on an earlier draft of this document. We appreciate their advice, time, and generosity.

Erwin Roemer, Air Force Materiel Command, originally conceived of this project and offered helpful words of encouragement throughout its duration. He also offered thoughtful suggestions. We hope that we met his expectations. Cecilia Brothers, Cultural Resource Management Specialist at the Legacy Resource Management Program, provided thoughtful advice and guidance. We also thank Rosemary Sucec, ethnographer and archaeologist, National Park Service, who served as peer reviewer. She traveled with us, laughed with us, prodded us, and shared her many insights with us in ways that went well beyond our expectations. Few peer reviewers would have taken the time to be as thorough or thoughtful. She improved the final products and has our gratitude.

Brian Knight and Russell Sackett with the Environmental Division at Fort Bliss provided a copy of their standard operating procedure for consulting with Native American tribes, and Luke AFB planner Carol Heathington shared information resulting from her successful Workshop on Traditional Cultural Properties held at Luke Air Force Base in April 2009 and jointly sponsored by Luke and the Arizona State Historic Preservation Office. Karlene Leeper, the CRM at Elmendorf Air Force Base, provided copies of interesting studies of natural resources completed as part of the planning efforts for Cold War sites. All were generous with their time and help, and we thank them.

We have drawn heavily from the views presented to us by many members of the tribes listed above. As well, we have reviewed—hopefully carefully—information and opinions expressed by Thomas King in his 2003 publication, *Places that Count, Traditional Cultural Properties in Cultural Resource Management*, Patricia Parker and Thomas King (1990, *Guidelines for Evaluating and Documenting Traditional Cultural Properties*), Darby Stapp and Michael Burney (2002, *Tribal Cultural Resource Management, The Full Circle to Stewardship*), Rosemary Sucec (2007, *Still Ancestral Homeland: An Ethnographic Overview and Assessment of American Indian Histories and Resource Uses Associated with Hill Air Force Base, Utah*), and several reports of traditional use studies completed in Canada. Additionally, we have corresponded with several of these authors via email; in some cases, they provided figures or advice. Our intent was not to usurp the thoughts or opinions of these researchers, but rather to show that they, not we, are on the cutting edge of studies to identify natural resources of traditional, cultural, and religious importance to tribes affiliated with DoD-managed lands.

This project and the reports associated with it were funded by the Department of Defense's Legacy Resource Management Program.

Finally, many people at Geo-Marine, Inc. were part of our team, and we are grateful to have their capable help. Duane Peter served as the overall manager of the project, offering cogent advice and support. Sharlene Allday provided editorial services, and Denise Pemberton formatted and prepared the draft and final documents. Joseph Moran prepared several maps for us. We could not have done this without them. In the end, however, we alone are responsible for any errors the document may contain, and accept responsibility for the information presented.

## **PREAMBLE**

*“For Indigenous Nations, Cultural Resources include animals, plants, and natural resources, as well as burial, occupation, prayer/worship, gathering, and gardening sites. Cultural Resources from the perspective of land-based worshippers also include important viewsheds, buttes, mountains, high ridges, and other natural formations that do not fit any Federal concepts or definitions. This has been problematic for Tribes and Tribal Peoples who see these resources holistically. In contrast, Federal and State law often segment these resources and assign their well being and management to diverse and, at times, competing Federal or State agencies. Under the National Historic Preservation Act (NHPA), an area that is inhabited by a unique community of plants or animals can be recognized as eligible for the National Register of Historic Places because of its ongoing importance for the culture of a living human community as a traditional cultural property (TCP), but in the implementation of the NHPA, much more attention has been given to sites that contain archaeologically important components. In addition, the importance of these relationships is subject to the interpretation of people and agencies that have no connection to either the archaeological/historic component or the plant/animal component and little understanding of their perceived sacredness by Indigenous Peoples.”*

Preamble prepared by Tribal stakeholders for the Missouri River Programmatic Agreement signed by the U.S. Army Corps of Engineers, 20 tribal governments, five state agencies, the Advisory Council on Historic Preservation, and the National Trust on Historic Preservation (signed March 19, 2004)



## FOREWORD: DIVERSE PERSPECTIVES

Our appreciation goes to the Department of Defense (DoD) for allowing us [the Confederated Tribes of the Goshute Reservation] to provide some input by way of this *Foreword*. Of all the federal, state, and local agencies our Tribe has contact with, the DoD is the first and only federal agency that has engaged in true consultation. We very much appreciate that effort.

As is obviously known by the DoD, there must be trust, friendships, and understanding developed between agencies and Native American Tribes before a true co-sharing of information can be accomplished.

Unfortunately, because of past practices, we Native Americans have been suspicious and untrusting of people and agencies that come to us asking questions, seeking information on cultural issues, sites, practices, etc. We are hesitant to divulge any information because of our suspicions of the nature of the questions or the motive in wanting this kind of information.

Notification and sharing of information of discovered culture sites (even accidentally disturbed sites) speaks of openness and honesty by DoD in working with my Tribe.

Many of our people are no longer with us to share stories and events, or the sacred, gathering, and other sites once used by my people in the Great Basin area. We must rely upon federal, state and local entities to share with us sites they have located and discovered. Some stories told by our people who are gone often times do not specify exact sites and locations; rather they indicate an area as being “in that valley” or “a day’s travel in that direction.” Many of us younger people often times also did not fully listen to our elders or have just forgotten many of their stories, teachings, and practices of our people.

Thus, we must rely on the non-Indian version and findings and accept their version about our people and culture.

This report covers many important “best practices” and honestly portrays us Native Americans as sometimes being hesitant to share information on specific natural/traditional resources. It also discusses that DoD management practice may be to wait for Tribes to initiate communications on specific resource locations and when Tribes do not voice concern due to privacy issues, “the assumption will be that nothing is there.”

DoD-managed land for the most part is restricted and off limits, at least that is the case with the Bombing Range for Hill AFB in and around the Great Salt Lake Desert. The aboriginal roaming area of my Tribe—the Confederated Tribes of the Goshute Reservation—includes the entire southern portion of the current bombing range. This area, although [seemingly] barren, contains cultural sites, villages, sacred sites, and other natural resources my Tribe used and

visited. For years, we have not been able to access the area because of the restrictions. We must rely entirely on the DoD to notify us of their discoveries of my people's villages, cultural sites, etc. They have done so, and again we appreciate their sharing this important information with us.

I believe that in the past, many of these sites were destroyed because I think the feeling of management during that time was one of "what they don't know won't hurt them" attitude. The world and thinking of people have changed, and I am extremely pleased to know that many new cultural resources managers and others have a different view and are genuinely concerned with preservation of cultural sites and scatters and the importance of working with Native American Tribes to learn together about these findings.

It seems strange that these non-Indian cultural resources managers and their staff are teaching us Indians some of the old ways of making arrowheads, stripping bark off vines, and making animals with bark [in the Great Basin, tribes often made small animals using tree bark, both as toys and as fetish-type figures]. I am ashamed and at the same time very happy to see our elders participating in these teaching sessions. Ashamed because I do not know how, but happy to observe our elders fully enjoying and learning these lost practices.

We ask that we not be kept in the dark; please understand that we may not immediately converse with you, it is just our nature (I guess); give us the opportunity to listen and absorb what you are asking and doing, and why you have come to us. We will be happy to share with you what you need to know, just give us the opportunity to do so in our way. We may not immediately respond, but as the old cliché goes, "patience is a virtue."

My sincere thanks to the forward-thinking of DoD, especially Jaynie Hirschi, our cultural resource "go to person," and Nancy Kenmotsu for her time and perseverance in gathering the valuable information contained in this report. Now, we must put the "Best Practices" to work, for all of our future generations.

Ed Naranjo,  
Administrator,  
Confederated Tribes of the Goshute Reservation



## **EXECUTIVE SUMMARY**

### **BACKGROUND, OBJECTIVE, AND GOALS**

In 2008, Geo-Marine Inc. (Geo-Marine) received funding from the Department of Defense Legacy Resource Management Program (#08-406) to hold meetings with Cultural Resource Managers (CRMs) and Natural Resource Managers (NRMs) at Hill Air Force Base (AFB) and Nellis AFB along with members of tribes affiliated with their managed lands to discuss effective ways to identify, evaluate, and manage natural resources on their lands that are important to those tribes. The study was carried out under the U.S. Army Corps of Engineers, Huntsville District (Cooperative Agreement Number W912DY-08-2-0016), and conducted by Geo-Marine, Inc. The meetings and subsequent discussions with CRMs at other installations and background research produced very useful suggestions on a variety of best practices that could improve installation identification and management of natural resources important to affiliated tribes.

### **RESULTS**

This project was initially intended to be limited to one geographic region for a one-year study. The intent was to develop a best practices tool to reflect a practical approach to optimize the identification, evaluation, and management of natural resources of importance to tribes. The Great Basin was chosen as the geographic area of study with a focus on Hill and Nellis AFBs. It was anticipated that the results might be broadened to apply to DoD installations in any geographic region. We worked with the resource managers at both installations and with the tribes affiliated with their managed lands. As the study proceeded, the principle investigators found that indeed the study could be broadened. Therefore, this report presents a model of 14 best practices that Cultural Resource Managers and Natural Resource Managers at DoD installations in any geographic region can use to assist them in matters related to consultation and the management of natural resources, or rather traditional, customary, or religious resources of importance to affiliated Indian tribes. The best practices model within this document represents a *process* for working with Indian people to identify natural resources of concern to them. Thus, this document advocates 14 best practices that can serve as umbrellas to the types of activities—from planning to management—that can aid an installation in the establishment of a program that will identify, evaluate, and manage these heritage assets.

The aim of the best practices is to provide basic, practical guidance for DoD resources managers. The model does not attempt to name all possible resources of import to Indian people, nor is it a “one size fits all” model, but rather contains best practices to aid in these efforts. Finally, the model acknowledges that the extent to which individual installations have initiated efforts to identify natural resources important to Indian people affiliated with their lands varies widely. Some installations have yet to begin the effort; others have taken some initial steps; a few are quite advanced. Installations that already have advanced management and consultation programs can use the best practices to enhance their approaches. Installations with less advanced programs can utilize the steps in the model as guidance to refine or initiate their own programs.

# CHAPTER 1

## INTRODUCTION

*Definition: Protected Tribal Resources. Those natural resources and properties of traditional or customary religious or cultural importance, either on or off Indian lands, retained by or reserved by Indian tribes through treaties, statutes, judicial decisions, or executive orders, including tribal trust resources . . .*

*It is DoD policy to: Take into consideration the significance that tribes ascribe to protected tribal resources on protected lands. . . .*

*From Department of Defense Instruction No. 4710.02, 2006, *DoD Interactions with Federally-Recognized Tribes*.*

### BACKGROUND AND PURPOSE

The Department of Defense (DoD) manages approximately 30 million acres of land on installations across the United States (DoD 2008). This report presents a model of “best practices” that those installations can use to assist them in matters related to consultation and the management of natural resources of traditional significance. Typically, natural resources on DoD military lands include natural features, minerals, landscapes, water features (rivers, springs, lakes, creeks, etc.), and plant and animal communities. This report will use natural resources and traditional resources interchangeably, as the above referenced DoD Instruction itself defines the relationship between these resources. Natural and traditional resources are part of the Protected Tribal Resources, defined above, that are vital to the histories and traditions of tribes affiliated with the installations.

All federal agencies, including the DoD, are required by law to take necessary measures to identify, preserve, and protect significant cultural resources under their jurisdiction and to carefully consider the effects that their actions will have on those properties. DoD has made considerable effort to identify, preserve where possible, and manage significant prehistoric and historic-age cultural resources on its lands as well as to consult with the groups and people who are concerned about them. The methodology used to identify these cultural resources has been largely confined to that of standard archaeological and historical surveys. These surveys focus on physical evidence (such as artifacts and structures) to determine where and how people used

places on the landscape. They generally only incorporate a limited amount of ethnographic and archival data, and only occasionally seek out information about natural resources from members of federally recognized American Indian tribes or Alaska Native groups who may have valuable

*The fact that many places considered important by tribes are places that archaeologists don't think about is an emerging issue in CRM.*

Carol Heathington,  
Planner, Luke AFB, Arizona,  
2009

information about natural resources that represent places or resources of traditional, customary, or religious importance to these groups. Indian people used and continue to consider important a multiplicity of natural resources and landscapes for food, shelter, or prayer, but the use of these types of resources may not be evident during survey. Lack of use may be seen as lack of significance; the chance of its recognition as a place important to Indian people during routine

archaeological survey falls to about zero. As a result, natural resources that are of importance to American Indian tribes (Figure 1) may be under-represented in DoD databases.



Figure 1. View of the Great Salt Lake from lands managed by Hill Air Force Base. The lake is a natural resource considered important to many tribes in the Great Basin (photo by Eric Hansen, Geo-Marine, Inc.).

Likewise, natural resources programs on DoD lands generally do not address these resources because there is no explicit regulatory “driver” under environmental laws to do so. For example, military installations consult U.S. Fish & Wildlife Service (USFWS) under provisions of the Endangered Species Act. Yet, although the USFWS has a Native American Policy (USFWS 1994) to ensure that tribes are partners in the common goal of conserving sensitive species (including candidate, proposed, and listed species) and the ecosystems upon which they depend, that agency does not appear to request in their comments on activities on military lands that the installations routinely consult with tribes about sensitive species on those lands. Similarly, the

USFWS's processing and distributing of certain animal parts, such as eagle feathers, for tribes' religious, ceremonial, and cultural purposes does not appear to be formally linked to or integrated with military installations' management programs. Moreover, an earlier survey found that military lands when compared to other federal lands have fewer rights reserved for tribal hunting/fishing and thus have been less frequently accessed by Native Americans (Nickens et al. 1993:8).

Finally, tribes often see natural resources as inseparable from cultural manifestations. In general, "Indian people perceive cultural resources to be part of and integrated into something greater than the artifacts and plants themselves" (Stoffle et al. 1990:12). This notion is not always made explicit in environmental protection and historic preservation legislation or in DoD land-management practices. Factors of religion and cultural privacy may also cause tribes to withhold or hesitate to share information on specific natural/traditional resources. For example, if the management practice on a DoD installation is to wait for tribes to initiate communications on specific resource locations and tribes do not voice concerns due to privacy issues, the assumption will be that "nothing is there." That assumption may not align well with DoD policy (DoD 2006) regarding responsibilities to tribes, protected tribal resources, or meaningful government-to-government relationships.

This project was sponsored by the U.S. Department of Defense (DoD) Legacy Resource Management Program (DoD Legacy Program)<sup>1</sup> and was initially intended to be limited to one geographic region for a one-year study. The original intent was to develop a best practices tool to reflect a practical approach to optimize the identification, evaluation, and management of natural resources of importance to Tribes. The Great Basin was chosen as the geographic area of study with a focus on Hill and Nellis Air Force Bases (AFBs). It was anticipated that the results might be broadened to apply to DoD installations in any geographic region.

*"... [M]y gratitude is extended to those members of Hill AFB-affiliated tribes who engaged in . . . consultation meetings and site visits. It was really in those exchanges that I began to realize how much the landscape of Hill AFB is still vital in the traditions and communal identities of the tribes whose histories are outlined in this report."*

Rosemary Sucec  
(2007:3)

As the study proceeded, the principle investigators found that indeed the study could be broadened. Therefore this report presents a model of 14 best practices that cultural and natural resources managers at DoD installations in any geographic region can use to identify natural resources that are of traditional, customary, or religious importance to affiliated Indian tribes. These resources are important; they represent heritage assets that should be managed as respectfully and thoughtfully as natural and cultural resources managers care for other DoD assets. Therefore, this report presents a model of 14 best practices that Cultural Resource Managers and Natural Resource Managers at DoD installations in any geographic region can use to assist them in matters related to consultation and the management of natural resources, or rather, traditional, customary, or religious resources of importance to affiliated Indian tribes. Thus, this document advocates 14 best practices that can serve as umbrellas to the types of activities—from planning to management—that can aid an installation in the establishment of a program that will identify, evaluate, and manage these heritage assets. The report draws heavily on information from the Great Basin because that region was the initial focus of the study. However, it also relies on information from elsewhere, and builds on DoD efforts to date to

---

<sup>1</sup> The study was carried out under the U.S. Army Corps of Engineers, Huntsville District (Cooperative Agreement Number W912DY-08-2-0016), and conducted by Geo-Marine, Inc. (project number 10014.10.03).

provide cultural and natural resources managers recommendations for practical management practices. The aim of the model is to provide basic, practical procedural guidance for DoD resources managers to identify natural resources of traditional, religious, and cultural value to tribes.

The model was prepared with the recognition that American Indians have a wide variety of cultural practices, beliefs, and traditions. As of February 2011, there are 565 federally recognized Indian tribes and Native Alaskan villages (Bureau of Indian Affairs 2011). Within this broad array, the resources important to one tribe differ from the next. The model also recognizes that the historical lands of the various Indian tribes and the managed lands of the DoD exist in quite diverse environmental settings with very different natural resources. Finally, the model acknowledges that the extent to which individual installations have initiated efforts to identify natural resources important to Indian people affiliated with their lands varies widely. Some installations have yet to begin the effort; others have taken some initial steps; a few are quite advanced.

Based on this background, the best practices model within this document represents a *process* for working with Indian people to identify natural resources of concern to them. The model does not attempt to name all possible resources of import to native peoples, nor does it pretend to be a “one size fits all” model, but rather contains best practices to aid in these efforts. It is worth noting that the term “model” in this document refers to a heuristic approach constructed under the framework of anthropology, geography, ecology, natural sciences, landscape history, and other complementary disciplines. Because this report advocates a process, it includes recommendations for the planning process that necessarily precedes efforts of identification, evaluation and other activities required under federal cultural resource management compliance law. **The model should not be used in place of DoD or federal agency Native American consultation or cultural resource management training courses.** DoD installations that already have advanced programs to identify resources important to affiliated tribes may wish to use the model to enhance their approaches. Installations with less advanced programs can utilize the steps in the model as guidance to refine or initiate their own programs.

One concept in the model that will be returned to is the need to define the parameters of an installation’s search for natural resources of concern to tribes. Does the installation need to identify all resources or merely some of them? Moreover, does the installation need to know all details about these resources? For example, Lynne Sebastian (1993:25), then the State Historic Preservation Officer (SHPO) of New Mexico, stated: “I need to know about a property’s association with a historic personage, with historic events, etc. I don’t need to know, and don’t wish to know, about the layers of confidential, sensitive, sacred knowledge associated with this historic property.” In sum, some information needs to be acquired by both the installation and the tribes for adequate understanding of the issues and developing appropriate identification, evaluation, and management strategies, but the amount and type of information will vary depending on the circumstances at each installation. Among other things, the installation’s mission (e.g., flight training versus heavy brigade combat team training) may dictate the need to identify representative samples of, a portion of, or all natural resources important to tribes.

The remainder of this chapter describes the methodology employed in this project. Again, the best practices model within this document represents a *process* for working with Indian people to identify traditional resources of concern to them. The chapter also contains a discussion of the improved efficiencies for an installation that can result from the identification of natural resources

of concern to tribes. The chapter ends by defining three terms (Traditional Cultural Properties, historic properties of religious and cultural significance, and sacred sites) that are often applied to natural resources of importance to tribes. Chapter 2 details the best practices found during the study. Each best practice is accompanied by recommendations for their implementation. Part I of that chapter contains best practices that are useful when planning such a program. They begin with ensuring a clear understanding the legal requirements of the program, undertaking background research about treaty requirements and the history and traditions of consulting tribes, establishing an installation-specific consultation process, identifying affiliated tribes, and understanding the issues that installations and tribes have in common. As part of the planning phase, best practices for managing confidentiality as well as contracting are also discussed. Part II of Chapter 2 presents best practices to identify, evaluate, and manage natural resources of concern to tribes. Chapter 3 summarizes the best practices and the recommendations for their implementation that were found during the study. It also contains recommendations for future studies. Richard Arnold, the Spokesperson for the Consolidated Group of Tribes and Organizations (CGTO)<sup>2</sup>, offers his perspective of the Nellis AFB Native American program in the *Afterword*.

Several appendices provide reference material. Accompanying the report is a summary of the findings of the study in a DoD Legacy Program-format fact sheet entitled *Best Practices: Managing Traditional Resources on DoD Lands*, that is designed for installation commanders and upper-level managers. As well, a DoD Legacy Program-format Powerpoint presentation was developed for use in briefings. The fact sheet, Powerpoint, and report will all be posted on the Department of Defense Environment, Safety and Occupational Health Network and Information Exchange (DENIX) website.

## **METHODOLOGY**

As noted above, the study initially focused on one geographic area—the Great Basin. Thus, much of the primary data for this best practices model came from a series of discussions and meetings with Indian people affiliated with Hill Air Force Base (Hill AFB) and its managed lands and Nellis Air Force Base (Nellis AFB) and its managed lands. Those discussions and meetings included the Cultural Resources Managers (CRMs) at both installations and the Natural Resources Manager (NRM) at Hill AFB. These DoD installations were selected because they actively engage in consultation with tribes. Both hold annual tribal meetings, and Nellis AFB in particular works closely with tribes in assigning priorities for future projects. Hill AFB recently completed an affiliation study to identify all Indian tribes associated with its managed lands (Sucec 2007:15), but as early as 1999 began consulting with those tribes and others that appeared to have an association with the installation. The tribes affiliated with the DoD-managed lands of Nellis AFB were identified some years ago. In recent years, Nellis AFB and the tribes have taken steps to identify natural resources of concern. Both installations are also located within the same geographic region—the Great Basin—and the types of natural resources important to tribes affiliated with each base have some overlap. Appendix A presents an overview of the Great Basin and summarizes the cultural ecology of tribes that consider this area ancestral land.

---

<sup>2</sup> The CGTO consists of a consortium of tribes and pan-Indian entities that unified themselves into a single organization in the 1980s “for the purpose of defending their collective interests in the lands and resources” of the Nevada Test Site managed by the Department of Energy (Stoffle et al. 2001:3). That consultation continues today. The CGTO has similar interests in the lands of Nellis AFB that border the Nevada Test Site and contain resources of importance to members of the group. Because of these interests, the CGTO began consulting with Nellis AFB in the 1990s.

The meetings mentioned above were held in October 2008 and January 2009 with the tribes and land managers. On October 15 and 16, 2008, the authors, along with Rosemary Sucec and Duane Peter, met in Salt Lake City and Ibapah, Utah, with representatives of the Northwest Band of Shoshone Nation, the Confederated Tribes of the Goshute Reservation, and the Hill AFB NRM and CRM. That meeting included a trip to Mosquito Willie's, a natural spring and archaeological site on Hill AFB containing prehistoric house remains dating 1,300 years old as well as historic-era structures and corrals (Hill AFB n.d.). In the meeting, these individuals provided input about how identification of natural resources important to tribes should be carried out as well as the best practices to follow in future studies. A second meeting was held in Las Vegas, Nevada, January 29–30, 2009, with tribal representatives of the Pahrump Paiute Tribe, Duckwater Shoshone Tribe, Bishop Paiute Tribe, Paiute Indian Tribe of Utah, and Fort Mojave Indian Tribe of Arizona, California, and Nevada, and the CRM from Nellis AFB. This meeting provided much additional information that has been utilized in this best practices model. The resources managers and tribal representatives were provided a copy of this report in draft and offered the opportunity to comment.

During the discussions at Hill and Nellis, it was recognized that the information they shared actually represented a process that resource managers at any installation, regardless of where located, could employ to consult with tribes to identify, evaluate, and manage natural resources important to them. As a result, the data from the discussions and meetings were supplemented with archival and published materials. These included treaties and historical maps. Additionally, archaeological reports, ethnographies, and cultural anthropological materials provided helpful information. Integrated Cultural Resources Management Plans (ICRMPs) and Integrated Natural Resources Plans (INRMPs) for Hill and Nellis AFBs were reviewed, as were ICRMPs for Fort Bliss (Texas and New Mexico), Camp LeJeune (North Carolina), and Fort Lewis (Washington). The latter three were selected to better understand the broad variety of training carried out on DoD managed lands.

Studies on similar topics completed under other DoD Legacy Program projects (e.g., Bumgardner 1993; Deloria and Stoffle 1998; Nickens et al. 1993) were also reviewed, and a variety of other published materials were consulted, including the recent report on tribal consultation practices that grew from a collaboration between the Advisory Council on Historic Preservation (ACHP) and the National Association of Tribal Historic Preservation Officers (THPOs) (Hutt and Lavalley 2005), as well as guidance documents on tribal consultation prepared by various federal agencies. Also employed was the advice provided in the ACHP's (2008a) *Consultation with Indian Tribes and Native Hawaiian Organizations, a Handbook*. Efforts were made to capture the practical wisdom contained in *Places that Count, Traditional Cultural Properties in Cultural Resource Management* by King (2003) and the earlier National Register Bulletin 38 by Parker and King (1990) entitled *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. Two other publications were important in defining best practices: *What You Are and How We Think*, a volume of the National Park Service's *CRM* magazine (Parker 1993) that was devoted to a series of articles on traditional cultural properties (TCPs); and *Tribal Cultural Resource Management, The Full Circle to Stewardship*, a book by Stapp and Burney (2002), nontribal archaeologists who worked for a number of years in the tribal program of the Confederated Tribes of the Umatilla Indian Reservation and are familiar with issues related to identification and management of natural resources that are of concern to tribes.



## EFFICIENCY THROUGH A SHARED UNDERSTANDING

During the present study we found that when agencies embark on a process to identify natural resources of concern to tribes, a shared understanding of resource management and goals is established between the federal agency and the tribe(s). This shared understanding results in efficiencies—efficiencies that make the process itself a sound business practice. First, like other federal agencies, DoD installations have legal obligations to consult with tribes. Some installations consult on each individual project, a process that is often time-consuming and cumbersome. Other installations consult with tribes as part of program planning for ICRMPs and other long-term management plans. The latter type of consultation “promotes smooth project execution and makes work stoppages to conduct remedial consultation [for inadvertent discoveries] less likely to occur” (Hutt and Lavallee 2005:112). The management plans themselves are also more realistic when the views of the tribes are known and considered within them. Plans that take these views into account can map a timeframe and strategy for identification and management of natural resources of importance to the tribes (Figure 2). Although tribes may not always concur with every aspect of the timeframe or strategy, they are still part of the process. Tribes are thus empowered by being part of the process, and they begin to understand the many competing priorities that are part of any management plan for an installation whose primary mission is to train military personnel. In describing the Native American program at Nellis AFB, Richard Arnold (personal communication 2009) of the Pahrump Paiute Tribe noted:

There is a learning curve. We have learned much about the training undertaken by the Air Force—how much space is needed, what the mission needs are. Once we knew these types of requirements of Nellis, we could appreciate their needs and be mindful of them. It was based on this shared understanding that we could then explain to the military trainers our needs to protect sacred rock art areas that were being impacted with sound. Provided they could still train to doctrine, the trainers had no problem moving the flight patterns.



Figure 2. Medicine Mounds, geological features located in the rolling plains in Hardeman County, Texas, are a traditional cultural property for the Comanche Nation. High elevations within the otherwise relatively flat landscape of the Great Plains can be seen for tremendous distances. Such elevated places are often revered by Plains tribes as places of power and spirituality (Gelo 1986; Kenmotsu et al. 1994; photo courtesy Texas Historical Commission).

In his statements, Arnold expresses how shared understanding develops between DoD, other federal agencies, and the tribes when studies to identify natural resources of tribal concern are initiated.

Second, CRMs and NRMs know that individual surveys conducted under Sections 106 and 110 of the National Historic Preservation Act to identify Native American resources require consultation with tribes. Early consultation with the tribes during development of five-year management plans makes subsequent project-specific consultation more efficient. As DoD installations consult with tribes and begin to know what heritage assets are present on their lands, they will be better prepared to manage those resources. Trying to manage the “unknown” is difficult, frustrating, and costly. Inventory of portions of an installation may need to be repeated if the methodology focuses only on archaeological sites. These re-inventories can be expensive and could be avoided by planning that includes consultation with Indian tribes (see Grant and Wenzlau 2008 for an example). Knowing what resources are important has other advantages. Absent a solid understanding of which resources may be important, managers at one extreme of the spectrum may assume that all resources are important, paralyzing efforts to plan and carry out their mission. At the other end of the spectrum, managers may assume that nothing is important and inadvertently allow impacts that will result in ill will—even litigation—when tribes are consulted. It simply makes good business sense to avoid these extremes by including affiliated tribes as consulting parties in management plans.

Identification of natural resources that are important to tribes will, by definition, require consultation with tribes. Only the tribe can say which resources are important to it. Moreover, this consultation will mandate a long-term commitment by both tribes and the installation. For several reasons, the identification process itself requires time. Often identification will entail interviews with elders or taking elders to visit selected places on DoD lands. Knowledge within the tribe of important places or resources does not reside with just one person, but varies by gender, social position, and age (Ford 1990:xxi). Reaching all these groups will require more than a letter to the tribe asking for information. In addition, resources important to one tribe may or may not be important to other tribes with interests in the installation lands. Hence, the process of identification takes time.

In sum during consultation, it is likely that all parties will come to anticipate differing viewpoints and mutual respect for those different points of view. Arnold (personal communication 2009), speaking of the Native American program at Nellis AFB, said:

The goal of the overall program is to understand and respect our tribal view of the land and its resources and how these are important to us as Indian people. We recognize that there is also a view of archaeology/science versus our view. The goal is not to create problems between the view points, but rather to establish that we have a view and it may not be the same as the archaeological/scientific view.

It is recommended that all parties engaged in this consultation be prepared for this time commitment, mutual respect for differing opinions, and willingness to understand. Through this shared understanding, relationships will be long-lasting and based on trust. As new projects are proposed or missions change, consultation can occur under an open working relationship with an economy of effort and a likely expectation that all parties will be satisfied by the outcome. Moreover, even if not all parties are satisfied by the outcome, there is a greater likelihood that tribal people will respect the outcome:

Let me firmly state: *we are not going to take you (the military) some place you do not want to go.* We recognize that the military has a mission. We are not interested in halting that mission. We want to be partners (“co-stewards”). There are real benefits to this tribal/CRM program. We are also realistic. Sometimes the military mission will deny our requests. We respect that [Richard Arnold, Pahrump Paiute Tribe, personal communication 2009; emphasis added].

As heritage assets are identified, DoD will likely find that some, perhaps most, of its managed lands represent ancestral homelands for affiliated Indian tribes. In many areas of the western United States where tribes reside close to their traditional lands that were withdrawn to be managed by the DoD or other federal agencies, tribes “still retain a high degree of sentiment for and attach special significance to those lost lands” (Stoffle et al. 1990:165). Such is the case in the Great Basin where Euroamericans generally viewed the land as hostile and with limited opportunities for economic exploitation (D’Azevedo 1986:1–2). Reservations were not established until the 1930s, and Indian people continued to use lands that today are part of Hill AFB, Nellis AFB, and the Nevada Test Site (managed by the U.S. Department of Energy) well into the 1940s (Arnold, personal communication 2009; Stoffle et al. 1990:55). As ancestral homelands, the DoD has a special relationship with the Indian people with whom they consult. “[T]he connection between Native Americans and the lands held or affected by DoD installations is abstract, complex, and non-trivial” (Stoffle 1998:75).

*Each day the old ones told me the same thing [about the importance of natural resources]. By giving us the information about the natural world and its remedies, they were giving us a gift – a way of helping ourselves.*

Helen Timbimboo,  
Northwest Band of Shoshone Nation,  
October 2008

## A CLARIFICATION OF TERMS

Three terms—“*traditional cultural property*,” “*historic properties of religious and cultural significance to tribes*,” and “*sacred sites*”—are frequently mentioned but they sometimes mean different things to different parties; their meanings can also be confused. Because these terms are often used for natural resources important to tribes, definitions of these terms are provided here for clarity, along with their relationship to the National Register.

The term “*traditional cultural property*” (TCP) was coined by Patricia Parker and Thomas King (1990) in National Register Bulletin 38, *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. In that bulletin, Parker and King state that a TCP:

Can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community.

As King (2003:4) elaborates elsewhere, nearly all individuals have a place that they hold special. In some cases, those places—like the Ganges River in India—become important to a larger community. The fact that, as King points out, hydrologists do not hold the river “in thrall” does not in any way diminish its significance to the community who associate it with its cultural values and beliefs. Hence, the Ganges would represent a TCP in India, just as the sedge fields in California where the Pomo Indians have traditionally gathered materials needed for their baskets (Parker 1993:1) represent a TCP for that community. Both are natural resources that are important in the maintenance and cultural identity of a community.

TCPs are not restricted to natural resources. They can be buildings, structures, archaeological sites, landscapes, or urban neighborhoods. In this context, it is worth noting that TCPs are physical places. They are not songs, dances, or specific traditions. For example, although the Turkey Dance of the Caddo Nation of Oklahoma is one of the tribe's most important, it can be danced in a variety of places. In contrast, the Caddo Nation's Dance Ground, where many community-wide dances—including the annual Clara Brown Dance—are held is a “physical place” that may be a TCP for the Caddo. National Register Bulletin 38 makes the following points about TCPs (from King 2003:34):

- A place can be eligible for the National Register based on its value in the eyes of a traditional community like an Indian tribe;
- Such a place need not be anything that's appreciated, or even perceived as such, by an outsider;
- Entirely natural places can be eligible for the National Register as TCPs;
- TCPs are identified through consultation with communities; and,
- The significance of TCPs must be understood with reference to community perceptions—it is how the *community* perceives the place and its significance that matters.

Not all TCPs that have been identified are related to Native American communities. African American AME churches and other religious facilities that serve the broader community often represent TCPs. Nonetheless, many TCPs that have been identified to date are related to Native American communities.

*Historic properties of religious and cultural significance to an Indian tribe* is a wordy phrase from the 1992 amendments to the National Historic Preservation Act (NHPA). The pertinent part of the amendments read:

- Properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined to be eligible for inclusion on the National Register [NHPA Section 101(d)(6)(A)].
- In carrying out its responsibilities under Section 106, a Federal agency shall consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to [such] properties [NHPA Section 101(d)(6)(B)].

These new sections of the NHPA and the new term *historic properties of religious and cultural significance to an Indian tribe*, unlike TCPs, apply solely to tribes and Native Hawaiian organizations. In its *Handbook* (ACHP 2008a), the ACHP notes this distinction, stating that the amendments “remind agencies that historic properties of religious and cultural significance to Indian tribes may be eligible for the National Register” (ACHP 2008a:19). The ACHP also states that National Register Bulletin 38 guidance for TCPs has sometimes been interpreted as requiring the continual use of a site by the community before it can be determined to be a TCP. In the case of tribes that underwent forced removal or where access to properties has been denied because it is now privately held, this can constitute a hardship. The 1992 amendments to the NHPA do not tie continual use to eligibility, and historic properties of traditional religious and cultural importance can be TCPs, but where they do not meet the test of continual use, they can still be evaluated under National Register criteria.

*Sacred sites* are a functional subset of TCPs. These sites are physical locations identified by an Indian tribe or a representative of an Indian religion as places held sacred in their religion or used for religious ceremonies. As King (2003:7) notes, the term “sacred” tends to be loaded with

“semantic freight” because Western culture values the separation of church and state. Nonetheless, Executive Order (EO) 13007 (*Indian Sacred Sites*) defines sacred sites as those with “religious significance to, or ceremonial use by, an Indian religion.” Since EO 13007 was issued, federal courts have found that the government should not ignore the historical value of religious sites and that Native American sacred sites should receive protection under the National Register (Hutt 2006).

Like other TCPs, sacred sites can be eligible for inclusion in the National Register (Figure 3). These sites are often of such importance that their locations are kept confidential and tribes may not wish them to be placed on the National Register for that reason:

While the Dena’ina and Ahtna tend not to be vocal and overt about important places or sacred places, there are several kinds of places that have heightened status [Kari 2006:17]. Graves and cemeteries are always considered important and are not to be disturbed or transected by trails. Grave locations are not readily divulged to outsiders [Kari 2006:20].

In discussing sacredness among Native Americans, Deloria (Deloria and Stoffle 1998:28) offers a list of types of sacred sites based on his research (Table 1). It is worth noting that not all Indian communities will have all types of sacred sites listed in Table 1. Moreover, some of the types listed may be TCPs for a tribe, but not considered sacred by them. Deloria (Deloria and Stoffle 1998:34) notes that prehistoric and historic migrations have affected sacred sites: “It is said that as the people change, so does their sacred geography.” He notes that the Sioux today hold ceremonies in the Black Hills and Nebraska Sand Hills that are close to their reservations, but “in former years the ceremonial centers were farther east in the Dakotas, and long ago, lakes in the Minnesota and Wisconsin region were the major ceremonial locations” (Deloria and Stoffle 1998:34). Similarly, as the Comanche moved south from the Northern Plains during the early eighteenth century, they brought with them their belief that prominent topographic features represent places of power (Gelo 1986, 1993). Medicine Bluffs, a series of granite hills on and adjacent to Fort Sill in southwest Oklahoma has a steep, sheer northern scarp overlooking Medicine Bluffs Creek. The Bluffs were and continue to be regarded as a powerful place by the Comanche and other Southern Plains tribes. They represent a place for rituals and healing. Hence, visually prominent natural features like Medicine Bluffs near Fort Sill, Oklahoma, and Medicine Mounds near Quanah, Texas (Kenmotsu et al. 1995, see Figure 2), replaced prominent places that were now well to the north of their new lands. Finally, Deloria (Deloria and Stoffle 1998:25) noted that sacred sites are often linked. Thus, mountains located outside of DoD-managed lands may be related to places on the installation.

*Just as sure as anywhere there's a  
Comanche, if there's good water and  
there's a knoll, they'd been on top of that  
knoll.*

Leonard Riddles,  
Comanche Nation,  
quoted in Kenmotsu et al. (1994:36)

In this best practices model, the focus is on the identification and management of natural resources important to tribes. Many or all are likely to be TCPs, historic properties of cultural or religious importance, sacred sites, or all three. Any of these properties can be determined to be eligible for listing on the National Register. Downer and Roberts (1993), King (2003), Parker and King (1990), Stapp and Burney (2002), and others who have worked extensively with communities concerned with these types of properties stress the absolute need to meet face-to-face with the people in the community to learn if they have such properties that they value. Only the community can say if such a property is important to them and their traditions.

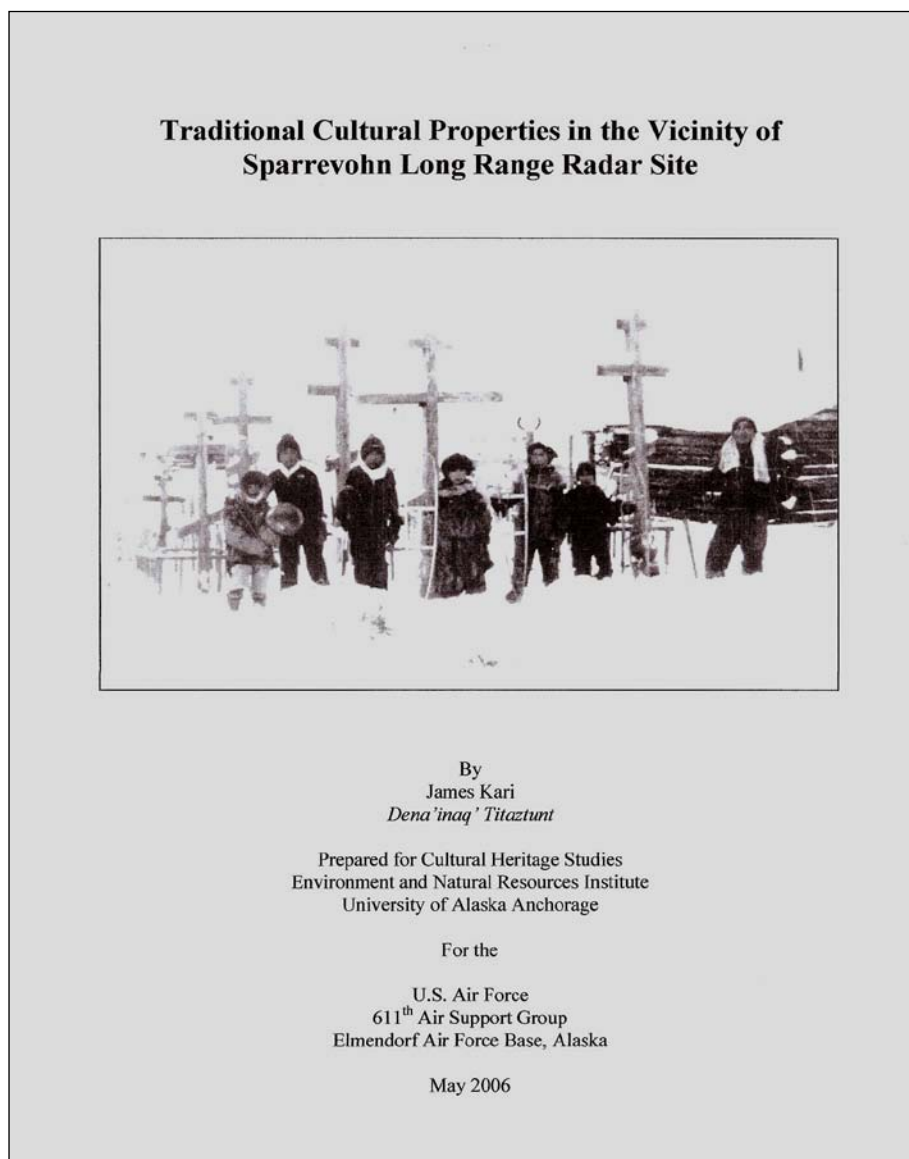


Figure 3. Cover of Kari (2006) report: Lime Village Cemetery, ca. 1935–1938, a probable sacred site and TCP for the Alaska Native Village. On the far right is Vonga Bobby; the other persons remain unidentified. This photograph was probably taken by Hans Seversen (Helena Seversen Moses Collection [H606], courtesy of the National Park Service, Lake Clark/Katmai Studies Center. Cover published with permission of Elmendorf Air Force Base, Alaska, and the National Park Service).

---

Table 1  
Types of Sacred Sites  
(after Deloria and Stoffle 1998:34)

---

| Site Type                               | Site Type                                 |
|---|---|
| Creation story locations and boundaries | Sacred portals recounting star migrations |
| Universal center locations              | Historical migration destiny locations    |
| Places of prehistoric revelations       | Traditional vision quest sites            |
| Plant-animal relationship locations     | Mourning and condolence sites             |
| Historical past occupancy sites         | Spirit sites                              |
| Recent historical event locations       | Plant, animal and mineral gathering sites |
| Sanctified ground                       |   |

---

## SUMMARY

In this study we worked with Hill and Nellis AFB and with the tribes they consult with to identify best practices to identify, evaluate, and manage natural resources on their managed lands that are important to the tribes. DoD installations have a long history identifying, evaluating, and managing archaeological and historic-age cultural resources on their lands in accordance with their legal obligations. Tribes and other stakeholders are consulted in that process. Identification of natural resources that may have spiritual or traditional importance to the tribes has not, however, been consistently undertaken. Through discussions with these people and from a variety of written reports and studies, this project identified a series of best practices being carried out by some installations and some other federal agencies that could be used to identify, evaluate, and manage such resources. These practices, if implemented, will not only assist installations in meeting their legal obligations but may also improve the efficiency of their programs. That is, inventories that include efforts to identify all resources, including natural resources of importance to tribes, are more efficient than inventories that only seek to identify archaeological resources.

For clarity, three terms (TCPs, historic properties of cultural or religious significance, and sacred sites) were defined. Many of the natural resources important to tribes—such as Mt. Shasta in California or the Medicine Bluffs near Fort Sill, Oklahoma—represent one or more of these types of resources. Discussions with the tribes will be needed to determine if one or more of such natural resources are present on an installation’s managed lands and if any are eligible for listing on the National Register. As such resources are identified, CRMs and NRMs will be better prepared to manage all heritage assets on their lands.

The following chapter presents the best practices that were found during the study. They include best practices that begin during the planning process as well as best practices for the identification, evaluation, and management of natural resources important to consulting tribes.





## **CHAPTER 2**

# **BEST PRACTICES TO IDENTIFY, EVALUATE, AND MANAGE NATURAL RESOURCES IMPORTANT TO TRIBES**

*Through their direct involvement, American Indians have shown that archaeological sites and other components of the cultural landscape—sacred areas, traditional places and resources, and the graves of ancestors—are not merely sources of data about the past, but are holy, sacred, and important parts of their ongoing way of life. This recognition has led many land-managing agencies to adjust their role as cultural resource managers to that of cultural resource stewards.*

Stapp and Burney 2002:2

In this chapter the best practices to identify, evaluate, and manage natural resources important to tribes that were found during the study are described. These best practices are currently being used at a variety of installations. A few installations use all or most of the best practices; others use fewer or have yet to initiate this type of program. The chapter is divided into two parts. In the first part, the best practices focus on up-front planning activities. In the second part of the chapter, the best practices focus on the actual identification, evaluation, and management of such resources.

Each best practice is followed by a discussion of the practice, why it is relevant to federal land managers, and, where possible, how it can be or is being accomplished on military installations. The discussion is followed by one or more recommendations for implementing the best practice. These best practices and recommendations are also presented in tabular form in Chapter 3.

### **PART 1: PLANNING TO IDENTIFY AND MANAGE NATURAL RESOURCES IMPORTANT TO TRIBES**

Land managers at DoD installations are well aware that the first step for any successful program or project is gathering background information to identify the various parties interested in their lands and projects, the reasons for that interest, and the roles of each party. This part of Chapter 2 includes best practices related to the legal mandates that help to define the parties and their roles. Developing a clear understanding of the treaty rights of tribes with interests in an installation's managed lands is another best practice during planning, as is gathering general knowledge of tribes' histories. Another best practice is development of an installation-specific consultation process. As cultural and natural resources managers begin consultation, conducting affiliation studies represents another best practice as does consideration of and management of confidentiality. Finally, in Part I, contracting best practices are described. Below, we summarize the best practices that are best carried out during the planning process to assist with management decisions; recommendations for implementation of the best practice are provided for each.

**Best Practice 1: NRMs and CRMs develop and maintain a thorough understanding of pertinent laws, regulations, Executive Orders, and DoD policies to ensure that recommendations to installation commanders are legally defensible and meet DoD government-to-government consultation requirements.**

The DoD has an interest in natural resources important to Native Americans. That interest stems from its responsibilities under a number of laws, executive orders (EOs), and policy statements that relate to the cultural resources responsibilities of federal agencies and American Indians.

*Laws, Executive Orders, and Policies*

Below is a brief review of several laws, EOs, and DoD policies that are most frequently cited and that relate to the DoD responsibilities to consult with tribes and identify natural resources important to them. A more comprehensive summary of these mandates is presented in Appendix B. CRMs and others on each installation are generally well versed in the first four of these, and nearly all ICRMPs acknowledge the rest.

- *The National Environmental Policy Act (NEPA) (42 U.S.C. 4321–4370c)* compels federal agencies to make informed decisions by requiring consideration of all relevant environmental consequences of any proposed action. Congress, through NEPA, declared a national policy to encourage productive and enjoyable harmony between Americans and their environment. The Federal government is to use all practicable means to preserve important historic, cultural, and natural aspects of our national heritage, and to maintain an environment supporting diversity. It also requires involving the public, including affected Indian tribes, in the decision-making process. NEPA requires that cultural, historical, and natural values are considered in all final decisions.
- *The National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. 470–470w)* and subsequent amendments encourage the preservation of the historical and cultural foundations of the country as a living part of the national community life and development in order to give a sense of orientation to the American people. It directs federal agencies to take the lead in preserving and protecting these foundations as they represent the nation’s prehistoric, historic, and ethnic heritage. Section 106 of the NHPA requires federal agencies to consider the effects of its actions, including military training, on properties listed on or eligible for listing in the National Register of Historic Places (National Register). Section 110 of NHPA is particularly important for military installations because it states that each Federal agency must: (1) assume responsibility for the preservation of historic properties owned or controlled by the agency; and (2) establish a program for the identification, evaluation, and nomination of historic properties to the National Register, and the protection of its historic properties.
- *The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 U.S.C. 3001–3013)* provides a process for federal agencies or entities receiving federal funds to determine the custody, protection, and repatriation of Native American human remains, associated and unassociated funerary objects, sacred objects, and objects of cultural patrimony.

- *The Archaeological Resources Protection Act (ARPA) of 1979 (16 U.S.C. 470aa–470mm)* protects archaeological resources on public lands and Indian lands. It also requires federal agencies to notify tribes of permits issued for excavations on such lands if the tribe[s] considers the sites to be of religious or cultural importance. ARPA also provides that Federal land managers shall establish programs to increase public awareness of the significance of the archaeological resources located on public lands and Indian lands and the need to protect such resources. These outreach activities typically are specified in ICRMPs/INRMPs and may involve tribal consultation and participation.
- *The American Indian Religious Freedom Act (AIRFA) (42 U.S.C. 1996–1996a)* confirms American Indians’ right of freedom to believe, express, and exercise traditional religions, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.
- *EO 13007—Indian Sacred Sites* requires federal land-management agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners to the extent practical within the agencies’ missions. It also requires such agencies to avoid adversely affecting the physical integrity of sacred sites where practicable.
- *EO 13175—Consultation and Coordination with Indian Tribal Governments* revoked EO 13084 (which carried the same title) but continues to reaffirm the unique legal relationship between the United States and Indian tribal governments. It stresses that federal agencies maintain regular and meaningful collaboration with Indian tribal governments when formulating policies that would affect tribal governments, being guided by the principle of respect for their self-government, treaty rights, and sovereignty. The EO also requires federal agencies to consider costs that may be imposed on tribes to comply with policies and regulations that the agencies develop.
- *DoD Instruction 4710.2—DoD Interactions with Federally-Recognized Tribes (14 September 2006)* details how all installations are to meet legal and treaty responsibilities with tribes. The instruction mandates stable and enduring government-to-government relationships, meaningful consultation, and consideration of the significance that tribes assign to protected tribal resources.
- *Air Force Instruction 32-7065—Cultural Resources Management Program (1 June 2004)* provides detailed instructions on roles and responsibilities for the identification and management of cultural resources on property affected by Air Force actions. The instruction requires consultation with federally recognized tribes that have historical ties with the installation or are affected by the installation. It further requires that efforts be taken to “identify, evaluate, and treat historic properties that have religious and cultural importance” to tribes.
- *Army Regulation 200-1—Environmental Protection and Enhancement (13 December 2007)* provides roles and responsibilities for all aspects of the environment, including cultural resources. One program requirement is to establish government-to-government consultation with federally recognized Indian tribes, and if a property of religious or cultural significance will be affected by the installation’s actions, that consultation must be initiated. Programs and projects that may affect properties of significance to tribes must be considered during planning.

- *MCO [Marine Corps Order] P5090.2A—Chapter 8, Cultural Resource Management (10 July 1998)* establishes responsibilities for cultural resources under the control of the Marine Corps. It defines cultural resources generically as, among other things, “resources of interest to Native American tribes or Native Hawaiian organizations.” It requires inventory of resources of traditional, cultural, or religious significance to Native American tribes or Native Hawaiian organizations and requires that these inventories be undertaken in consultation with those organizations and tribes.
- *Secretary of the Navy Instruction 4000.35A—Department of the Navy Cultural Resources Program (09 April 2001)* assigns and defines the roles and responsibilities for cultural resources under the custody of or management of Navy installations. Cultural resources are defined as those eligible for or listed in the National Register as well as “American Indian, Eskimo, Aleut, or Native Hawaiian sacred sites for which access is protected” under AIRFA. The instruction requires consultation with native groups when Navy undertakings may affect National Register properties whether or not they are on Navy property.

**Recommendation:** Provide regulatory training opportunities for both the CRM and the NRM, including refresher training.

**Recommendation:** Cross-train CRMs and NRMs to ensure they adequately understand the legal requirements of each other’s programs. Such training can be formal classes or review of each program’s five-year management plan.

**Best Practice 2: The CRM, NRM, and other installation personnel, as appropriate are familiar with the treaty rights of the affiliated tribes to ensure that policies and programs take into account those rights.**

From 1778 to 1871, many tribes, particularly those west of the Mississippi River, signed treaties with the federal government ceding large areas of land that were ancestral homelands in exchange for goods, services, or, in some cases, reservations. Some of these treaties were never ratified by the U.S. Senate and signed by the president, but many were. For example, an 1855 Treaty (ratified in 1859) in the Pacific Northwest between the United States and the Confederated Tribes and Bands of the Yakama Nation ceded to the government a significant portion of Washington state, including the lands now managed by Joint Base Lewis McChord at the Yakima Training Center (Figure 4). The treaty specified several items of compensation for this concession, including the following:

The exclusive right of taking fish in all the streams, where running through or bordering said reservation, is further secured to said confederated tribes and bands of Indians, as also the right of taking fish at all usual and accustomed places, in common with citizens of the Territory, and of erecting temporary buildings for curing them; together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land [*The Yakima Treaty 1855:Article III*].

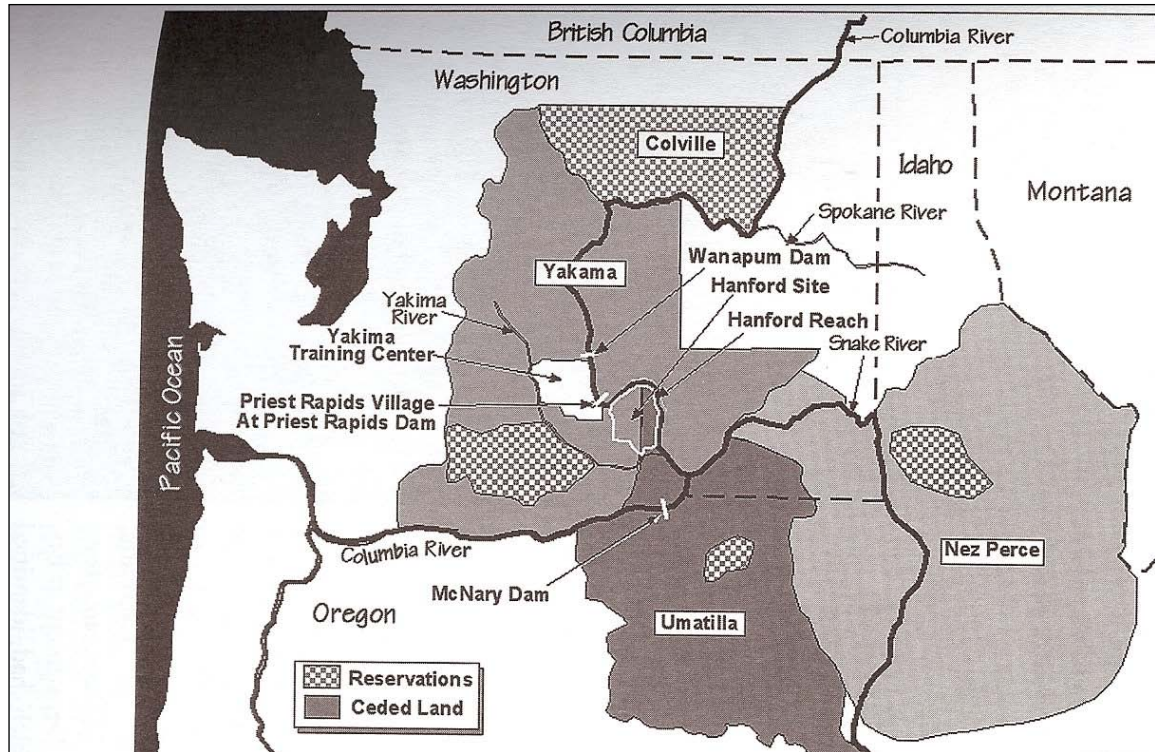


Figure 4. Map of Washington and Oregon showing ceded lands of the Yakama and other tribes and the areas of their modern reservations. Note the location of the Hanford Reach (map from Stapp and Burney 2002:Figure 5.1; courtesy of Altamira Press).

This treaty and its concessions continue to hold relevance today. Stapp and Burney (2002:85) point out:

The Hanford Reach of the Columbia River is perhaps the most striking ethnographic resource that is significant to the Umatilla, Walla Walla, Cayuse, Wanapum, Yakama, Palus, and other tribes. Not only is the history of Indian use of the Hanford Reach well documented, Indian people today continue to focus much of their attention on the river and its resources, principally fish.

Treaty rights have been upheld in federal courts, including the Supreme Court (Grossman 1992). In Washington state, a court ruling mandated that state and tribal governments co-manage natural resources in the treaty-ceded lands (see Figure 4), and also provided the tribe legal standing in limiting off-reservation projects that could jeopardize salmon.

The treaties are generally similar, but the details of compensation for ceding their lands vary. For example, in addition to the above concessions, the 1855 Treaty for the Yakama established a reservation for the Confederated Tribes and Bands as shown in Figure 4. In contrast, the 1863 Treaty with the Eastern Shoshone (ratified in 1864) did not establish a reservation, although it did disclose the large area the bands of the Eastern Shoshone considered their homelands (Sucec 2007:184–185). Today, that land includes southwestern Wyoming, southeastern Idaho, northeastern Utah, and northwestern Colorado. Similarly, a portion of the land that is now Hill AFB in Utah was once treaty land (southern part of the UTTR) for the Goshute (Sucec 2007). Natural resources in these ceded and treaty lands may have significance to tribes (Figure 5).



Figure 5. White Bluffs, within the Hanford Reach of the Columbia River. The river and the Hanford Reach are important to many central Washington and northern Oregon tribes, as is the Wanapum village of Wahluke located at the end of White Bluffs. The Reach and village, however, lie outside any reservation (photo courtesy of Darby Stapp).

It is important to note that these treaties, in addition to federal statutes, case law, and EOs, establish the government’s responsibilities to tribes and Native Alaska villages. Sucec (2006:259) writes:

[M]any factors are considered when interpreting Indian treaties. For example, the “canons of construction” call for treaties to be interpreted to the benefit of tribes. Also considered is the special “trust responsibility” relationship of the United States with Indian tribes. This relationship implies moral and legal duties, “as well as a partnership agreement to insure that Indian tribes have available to them the tools and resources to survive as distinct political and cultural groups” (Puyallup Tribe v. Washington Department of Game in Pevar 1992:31). Other considerations include “reserved rights,” as well as the definition of what constitutes “unoccupied lands.” It is not the intent to legally interpret provisions of treaties mentioned here or elsewhere in this chapter, nor is it appropriate to do so. A legal analysis of tribal use and access rights should always be conducted by an attorney with expertise in Indian law. The intent, rather, is to simply lay out what [a]...treaty...say[s] with respect to their use of lands outside the designated reservation.

Banks et al. (2000:35) describe such treaty rights in the Northern Plains:

Although removed from the modern reservations, [several] reservoirs are within lands set aside for the Great Sioux Nation in the Ft. Laramie treaties. The Sioux tribes no longer have direct control of these lands, but the tribes may still retain rights of access for hunting, fishing, or gathering, or rights to the waters and these rights may qualify as [Indian Trust Assets]. To determine the status of these rights accurately necessitates a review of the relevant treaties.

- Recommendation: Ensure regular review of the provisions of any treaties made with the tribes consulting with the installation. The treaties may contain provisions that affect land management responsibilities and activities such as allowing access to the installation's managed lands. The provisions may also affect how the installation consults with affiliated tribes.
- Recommendation: Seek the advice of the installation's legal staff to ensure interpretations of treaty provisions are accurate.
- Recommendation: As part of its trust responsibilities, ensure that interactions between DoD installations and tribes take place on a government-to-government basis. Consultants, state officials, or other non-DoD project proponents can make arrangements for interactions with tribal officials or participate in such interactions, but the primary participants should be DoD and the tribes.

**Best Practice 3: The CRM is familiar with the history and traditions of each consulting tribe.**

Like other groups that installations consult, tribes bring their own perspectives and world view. Those perspectives derive, in large part, from each tribe's history and traditions. Meetings and discussions with the tribes are facilitated when the CRM is familiar with that history and tribal traditions. Many CRMs are already knowledgeable about the tribes they consult. For those who are not, information on tribal history and cultural traditions are available from many sources. Diaries and letters of Euroamerican travelers provide some of the earliest descriptions of native peoples. Historical maps often show the locations of Indian groups, and a study of native place names can be "a key component for determining [the locations of] specific cultural properties as well as establishing territorial range and means of travel throughout a traditional territory" (Kari 2006:9). For example, Kari acquired information on place names from historical and modern maps as well as oral interviews in the Lime Village, a Native Alaskan village, to more accurately understand the traditional territories important to the Dena'ina Athapaskan people. His study was initiated by Elmendorf AFB as part of its planning for site operations and environmental remediation projects.

Other important background materials exist. The Bureau of American Ethnology (BAE) was established as part of the Smithsonian Institution in 1879 and, according to the *Preface to 1<sup>st</sup> Annual Report*, was directed to conduct "anthropological researches among the North American Indians" (BAE 1881:xi). The BAE pursued this work for nearly 100 years, and its annual reports contain considerable information relevant to natural resources that may be of traditional, customary, or religious importance to specific tribes. Some of its reports can be accessed on-line at Publications of the Bureau of American Ethnology (BAE 2000a) and Bureau of American Ethnology, Bulletin Series (BAE 2000b); others are available at many university libraries. In more recent years, the Smithsonian Institution published regionally organized volumes entitled *Handbook of North American Indians*. The volumes were designed to be "an encyclopedic summary of what is known about the prehistory, history, and cultures of the aboriginal peoples of North America north of the urban civilizations of central Mexico" (Sturtevant and d'Azevedo 1986:xiii). Conceived as a 20-volume set, most have been published; information on those still available for purchase can be found at the Smithsonian's National Museum of Natural History (2009). Additional information can be found in the cases and records of the Indian Claims Commission (ICC). The ICC was enacted by Congress in 1947 and continued its work until late 1978. It "[h]eard and determined claims against the United States on behalf of any tribe, band, or



other identifiable group of American Indians residing in the United States and filed within 5 years of the passage of the . . . act” (Records of the Indian Claims Commission 1995). In presenting evidence for or against individual claims, expert witnesses, Native Americans, and others presented a remarkable amount of information on the Indian tribes who brought forward claims. Oklahoma State University has digitized the decisions of the ICC, making them available at Indian Claims Commission Decisions (n.d.).

These and other materials, in addition to tribal libraries and individual tribal members themselves, provide a considerable body of available ethnographic and oral informant data for many tribes and Alaska Native groups. As with any research, however, some data require cautions. Early accounts by Euroamericans should be understood as “first impressions” that need to be verified by other information. Names, for example, were often misunderstood and various spellings were often thought to represent unique groups. Only in the twentieth century did researchers begin to understand these names often represented the same name or bands of a single community.

*Name variants for the “Gueiquesale”  
in Spanish documents related to  
modern Texas:*

*Coetzale  
Gueiquesal  
Gueiquechali  
Guericochal  
Guisole  
Huisocal  
Huyquetzal  
Quetzal  
Quesale*

T. N. Campbell  
(1988:55)

Clemmer and Myers (1999:xviii–xix), in their introduction to *Julian Steward and the Great Basin: The Making of an Anthropologist* (Clemmer et al. 1999), summarize a number of other cautions about data in BAE reports, early ethnographies, and the ICC documents. For example, assumptions made by these early ethnographers and observers (in this case Steward) about abundance of animal species used for food that are based on a single observation may be overdrawn. Recent research also indicates that Steward failed to understand the territoriality that existed among the Indian people who lived in the Great Basin. Additionally, some early ethnographies reflect an author’s belief that Indian tribes would be fully acculturated within Euroamerican cultures in the near future; others failed to recognize the influence of the market economy on the tribes and the tribes’ abilities to adapt to those forces without losing their ethnic identity. As another caution, early in its deliberations, the ICC made the decision that if one or several tribes were found to have held a certain territory, no other tribe could claim any portion of that land. This decision does not match historical reality. As Walker (1999:65) points out: “there can be an overlap zone of bilingualism, intermarriage, and other cultural mixing as much as 100 miles wide.” There is also increasingly widespread evidence of migration during both the prehistoric and historic eras (see Anthony 1990; Gmelch 1980; Johnson 1989; Matson and Magne 2007; Zedeño 1994, among others), and the United States government implemented forced removal during the nineteenth century (see Everett 1990; Mulroy 1993, for two examples).

These cautions are not meant to discourage the use of early materials. As King (2003:201–202) notes, these materials can have tremendous value: “Many California Indian tribes that virtually lost contact with their cultural roots during the nineteenth and early to mid-twentieth century are recovering and reconstructing them today based in large measure on what anthropologists like J. P. Harrington were able to record, sometimes through seemingly brutal deathbed interviews.”

**Recommendation:** Gather background information about the tribes from early settler accounts, historical maps, and ethnographies such as those of the Bureau of American Ethnology series and the more recent *Handbook of North American Indians*.



The data can be invaluable in meetings and discussions with tribes affiliated with an installation's managed lands.

Recommendation: Be aware of any biases that may exist in these documents.

Recommendation: Review any decisions about the affiliated tribes that were made by the Indian Claims Commission.

Recommendation: Consider discussing this background material with the tribes themselves for greater understanding of their history and traditions.

#### **Best Practice 4: The installation develops a Native American consultation process that meets legal requirements and its mission.**

Development of an installation-specific consultation process is beneficial to program and project planning. The consultation process varies from one installation to another based on a variety of factors. As one factor, it is important that CRMs consider the level of consultation that the installation is willing to undertake in keeping with DoD Instruction 4710.2. Installation commanders should be aware of and endorse this level of consultation. It is recommended that the consideration begin with a clear understanding of what consultation is. The Secretary of Interior's Standards and Guidelines define consultation as: "the process of seeking, discussing, and considering the views of others, and, where feasible, seeking agreement with them on how historic properties should be identified, considered, and managed" (*Federal Register* 1998). Guidance for consultation with tribes that is attached to DoD Instruction 4710.2, states: "Consultation is always a dialog, with information and opinion respectfully exchanged in both directions." Consultation under the regulations for Section 106 of the NHPA state: "Consultation means the process of seeking, discussing, and considering the views of other participants, and where feasible, seeking agreement with them." Although these differ slightly from each other, each definition stresses interaction and an exchange of information and views.

As an example of one consultation process, Stoffle (Deloria and Stoffle 1998:72) lays out his steps for the process:

- Define consultation. Stoffle believes that different groups and different issues may require some adjustment in how the parties define consultation.
- Establish cultural affiliation.
- Contact the tribes or Native Alaska villages.
- Hold an orientation meeting.
- Form a consultation committee. Some DoD installations have a large number of affiliated tribes. Stoffle advocates use of a subset of those tribes to represent the interest of the broader group, a process that has worked well at Nellis AFB (Keith Myhrer, CRM at Nellis, personal communication 2009) and at the Nevada Test Site (Arnold, personal communication 2009). King (2003:244) and Heathington (Planner at Luke AFB, personal communication 2009) note that such committees are not always welcomed by all tribes. Installations would need to speak with the affiliated tribes to determine if a committee is appropriate.
- Conduct visits to specific locales on the installation.
- Develop mitigation recommendations.
- Maintain ongoing interaction and monitoring.
- Terminate consultation when appropriate.

The ACHP (2008b) offers the following advice for the consultation process: (1) keep an open mind; (2) state your interests clearly; (3) acknowledge that others have legitimate interests, and seek to understand and accommodate them; (4) consider a wide range of options; and (5) identify shared goals and seek options that allow mutual gain. Finally, Stapp and Burney (2002:119) note that there is no one cookbook for consultation, but the “key ingredient to success would seem to be sincerity.”

For installations that have had limited or no consultations with tribes, a number of resources exist that can assist them in planning their consultation. Appendix C contains the tribal consultation protocol in place and used at Fort Bliss, Texas. That installation is currently discussing with tribes whether a more specific consulting agreement is needed, but this general protocol has served the installation well to this point (Sackett, Environmental Division at Fort Bliss, personal communication 2009). The *Afterword* by Richard Arnold is a summary of the Indian consultation program in place at Nellis AFB, written from the perspective of the Spokesperson for the CGTO representing the tribes affiliated with that installation.

The American Association of State Highway and Transportation Officials (AASHTO)<sup>3</sup> has a website on tribal consultation that offers many other examples. The website, accessed at Center for Environmental Excellence by AASHTO (2009), provides guidance, case studies, protocols, and other information from a variety of federal agencies, tribes, and state governments. One document posted on the website is a summary of a tribal summit held by the Federal Highway Administration (FHWA) and the Pennsylvania Department of Transportation (PennDOT) in 2003 (FHWA 2004). Pennsylvania has no resident tribes within its borders. Fifteen tribes historically affiliated with state lands attended the summit. The summary candidly presents PennDOT’s lessons learned from the summit. These included the lesson that organizing and making travel plans for multiple parties from different places is never easy, requires patience, and must be carried out within federal requirements. They recommend that the agency begin with reasonable expectations; theirs were somewhat beyond what could be covered in a first meeting. They also recommend caution in providing too much information at a single meeting; overload can lead to confusion or misunderstanding. It is also recommended that everyone be allowed an opportunity to speak. Finally, they found that some of the most productive discussions occur during tours, at meals, and in other casual settings. Other helpful, practical hints from the summit along with several pulled from Stapp and Burney (2002:136–137, 144–150) are listed in Appendix D.

As part of the consultation process, Stoffle (2001:23) argues that the federal agency must decide up front:

how much decision-making power can be and will be shared with Indian people. Once the range of decision-making sharing is established, it should be clearly identified at the outset of the consultation so that it can become a part of the Indian people’s decision about whether to participate in the consultation.

Stoffle (2001:23) further argues that at the restricted end of shared decision-making (i.e., where little decision-making is shared), the participants generally believe the consultation is little more than manipulation. Participants where decision-making is more open believe they are partners, or “co-stewards” as the CGTO are called at Nellis AFB. In developing its consultation process, each installation will need to make its own decision about the level of shared decision-making that can be accommodated.

---

<sup>3</sup> AASHTO is a nonprofit corporation in Washington, D.C., organized “for charitable, educational and scientific purposes, all for the public welfare. . . .” (AASHTO Governing Documents, Bylaws, AASHTO 2009:1).

As managers and senior decision-makers at the installation consider the amount of shared decision-making with which they are comfortable, it is recommended that other issues that will become part of the installation's consultation process be considered internally as well (see also Appendix C). These include but are not limited to the following:

- How will access to the managed lands be handled within the military mission?
- To what extent will managers allow tribes to review, comment, and have input into management plans, research designs, treatment plans, and other documents?
- How will the installation implement (or not) tribal recommendations? Keith Myhrer (CRM at Nellis AFB, personal communication 2009) said: "We considered each recommendation separately, and implemented some immediately. Others required greater consideration and discussion. A few were altered and then implemented. And, a few we said we could not do."
- Is the installation management aware that it may need to listen to complaints? If little consultation has occurred, tribes may begin with complaints or grievances in opening meetings. As King (2003:238) states: "It can be very irritating, especially if you think you're there to help. But it's often something that simply must be said, and listened to; something that's required by the norms of the society—and of course something that's probably justified by history . . . ."
- Will the installation allow tribes to be involved in establishing priorities for identification of natural resources important to them?
- How will the installation seek to resolve conflict?
- At what level will the command structure meet with the tribes?
- What etiquette will be followed during consultation meetings? Appendix D contains useful etiquette protocols developed by the Pennsylvania Division of FHWA.
- Will the consultation be used as an opportunity to familiarize the tribes with the military mission? How will this be done and by whom?
- How can communication be facilitated? Military time, for example, is not familiar to most civilians, including Native American civilians. Similarly, King (2003:239) points out that the term "avoidance" can mean quite different things to Indian people versus DoD managers. DoD managers may define it as avoiding physical damage or intrusion, but Indian people may also define it as visual, audible, or other avoidance. It is recommended that the installation plan to include discussion of these types of potential communication issues.
- How committed are the CRM and NRM at the installation to the identification of natural resources that are important to tribes?
- How committed are the senior and command-level leaders to the consultation plan?
- How will the installation handle confidentiality?
- Is the installation consulting about a project or a program?

As another issue in developing an installation-specific consultation plan, it is recommended that managers consider one other important issue: will there be prioritization of natural resources? Quoting from Stoffle et al. (2001:205):

At the onset of the consultation partnership, DOE/NV [Department of Energy, Nevada] and the culturally affiliated tribes and organizations negotiated a critical compromise: if Indian people identified places and resources that were highly significant in cultural and religious terms, as opposed to "less significant" places and resources, the DOE/NV would make efforts to protect those places and resources at the expense of less significant places and resources. . . . In the effort to gain some protection for their traditional resources, then, Indian people reluctantly agreed to engage in the

ethically and morally difficult—and potentially dangerous from a cultural standpoint—process of cultural triage, thereby in part violating [their] cosmological axioms and ultimate sacred postulates. In the course of field visits, Indian people conducted prayers, rituals, and ceremonies to let the land and resources know what was being done to them and why it was occurring.

The issue of triage and how (or if) it will be handled needs careful thought, and it is recommended that it be discussed openly in consultation meetings with tribes to ensure that all parties understand each other. Among other things, it cannot be assumed that triage will be accepted as an appropriate strategy by all tribes. Because the Indian worldview sees all things as connected, some tribes may be opposed to triage. It also is recommended that it be discussed within the context of the installation's military mission which is another reason why the consultation process varies between installations. At Fort Irwin in California, the continual training activities may dictate how triage, access, or other issues are handled. Nellis AFB, in contrast, may be able to afford greater flexibility, provided the mission can be achieved. If it is not discussed, the issue has potential for misunderstanding and conflict.

It is recommended that all these issues be considered during the process of developing an installation-specific consultation process. As a caution, however, it is strongly recommended that many of the final decisions on issues be deferred until meeting with the tribes. Confidentiality, for example, is an issue that will require discussion with tribes to determine how it will be handled; predetermination by the installation could lead to distrust. Similarly, an installation may have its unique ideas about how it would like to resolve conflict, but if its ideas are presented as finished products in an initial meeting with tribes, the installation may be perceived as negotiating and consulting in an atmosphere of little trust, equity, or respect. Keith Myhrer (CRM Nellis AFB, personal communication 2009) said: "Indians should be participants in meetings/discussions, not spectators. If all you have at the end is a list of meetings held, you don't really have much." Richard Arnold (personal communication 2009) added: "At first, in the annual [Nellis] meetings, the archaeologists presented their findings or summaries of their projects to the Indians. Now archaeologists and Indians present to each other and the military their unique findings." Consultation is about discussions that are open, respectful, and present all views. This type of consultation occurs when the installation and the tribal people come to the table as equals. There are certain things on military lands—access to an active impact area or one with unexploded ordinance—that may not be negotiable. Reasonable people will understand and expect those types of nonnegotiable issues. It is recommended that most other issues be decided together.

**Recommendation:** Avoid developing a consultation process from scratch. Resources on tribal consultation are available on the internet, and colleagues at installations who have already initiated efforts to identify natural resources important to tribes are willing to share their experiences.

**Recommendation:** Make all parties aware that guidance for DoD Instruction 4710.2 defines consultation as "a dialogue, with information and opinion respectfully exchanged in both directions."

**Recommendation:** Before meeting with the tribes, determine the level of shared decision-making that the installation is willing to allow. Inform the tribes of this level in the initial discussions to ensure that all are working in good faith with the same expectations.

**Recommendation:** Include the installation's mission as a factor when planning the consultation process. How and when resources can be avoided will vary depending on the type of training undertaken at the installation. Discuss this with the tribes to ensure clarity beginning with the initial discussions.

**Recommendation:** Consider issues that are likely to come up during discussions with tribal people when developing an installation-specific consultation process. Questions—such as how conflict will be resolved, how, where, and when access will be permitted, how tribal recommendations will be implemented (or not), and how committed the CRM, NRM, and senior and command-level leaders are to the consultation process and the identification of natural resources of concern to tribes—need to be addressed internally at the installation first.

**Recommendation:** Plan the consultation process, but finalize those issues that can be negotiated with the consultation partners. For example, where and when access to ranges or training areas can be provided may not be negotiable. Explain non-negotiable issues in initial meetings with tribes, but discuss with them issues that can be negotiated before reaching a final decision.

**Best Practice 5: The installation undertakes a study to identify tribes affiliated with its managed lands.**

*The decisions about ‘affiliation’ are complex. Decisions will vary dependant upon the history of the tribes and the lands.*

Richard Arnold,  
Pahrump Paiute Tribe  
January 2009

*There is a Mojave group – the PaiPai – who speak all seven dialects of the Mojave language. They are now in Baja California. I met with them a few years ago. They wanted me to speak for them in the US, but I told them I lived at some distance, and that I don’t know what they want. At first, I could not understand them; then they began speaking one of the dialects of Mojave. I realized I could understand them! So, now we have a situation with a real affiliation but they not only don’t have proof, they no longer reside in the US. They should be given a seat at the table.*

Felton Bricker  
Fort Mojave Indian Tribe of Arizona,  
California, and Nevada

It is recommended that identification of Indian peoples who have historical ties with the lands managed by an installation be one of the first steps taken. This step can be done concurrently with other efforts, but it is vital to the ultimate success of the overall program. If an installation initiates a program to identify natural resources of concerns to affiliated tribes and includes only some of the tribes that have ties to the installation’s lands, it will at best have to revisit issues already thought to be put to rest. At worst, the installation could find that tribes left out of meetings or consultations resent or distrust future actions taken by installation commanders. To avoid these pitfalls and for efficiency of time and funding, identification of tribes affiliated with the installation’s managed lands should be accomplished early in the process.

Affiliation studies should be:

- thorough;
- undertaken by professionals trained in the study of cultural systems; and
- completed in consultation with potentially affiliated Indian people.

These three, simple requirements for affiliation studies are critical to the installation’s ability to rely on the results of the study. A thorough study will include research in archives where handwritten documents from early Euroamerican travelers or settlers in the area of the installation are on file. These documents and historical maps often contain information on Indian people who resided in the region. Examples of recent affiliation studies that meet these requirements include the following:

Brandt, Elizabeth A.

1997 *Salinas Pueblo Missions National Monument Cultural Affiliation Study*. National Park Service, Applied Ethnography Program, Southwest Systems Support Office, Santa Fe.

Kenmotsu, Nancy A., and Mariah F. Wade

2001 *Amistad National Recreation Area, Del Rio, Texas, American Indian Tribal Affiliation Study, Phase I: Ethnohistoric Literature Review*. Archeological Studies Program, Report No. 34, Texas Department of Transportation, Austin and National Park Service, Del Rio, Texas.

Levine, Frances, and Thomas Merlan

1997 *Bandelier National Monument Ethnographic Literature Search and Consultation*. Bandelier National Monument, New Mexico.

Sucec, Rosemary

2007 *Still Ancestral Homeland: an Ethnographic Overview and Assessment of American Indian Histories and Resource Uses Associated with Hill Air Force Base, Utah*. Hill Air Force Base and National Park Service, Layton, Utah.

The study as well as meetings with specific tribes may reveal that some tribes attach traditional, cultural, or religious significance to a DoD-owned or impacted resource but do not want to claim affiliation with all resources. For example, Gerald Kane (personal communication, 2009) of the Bishop Paiute Tribe stated: “My father told me that our people traveled through a large area, sometimes a trip that would take four to five years.” Many other Indian people traveled far from homelands. Those travels may have resulted in specific mountains, caves, lakes, or other natural resources well removed from such homelands that came to play a role in tribal oral histories or myths. In such cases, the tribe may express an interest in that resource, but not wish to be “affiliated” per se. It is recommended that these claims be considered along with any claims from affiliated tribes when complying with legal mandates.

Affiliation studies are particularly important for installations in the eastern and southeastern United States. Many tribes there were removed, some several times. For example,

The Delaware Tribe or Eastern Delaware are one of many American Indian tribes that descend from the Algonquin speaking horticulturalists that once lived along the Delaware and Hudson River valleys. . . [in] Pennsylvania, Delaware, New Jersey, and New York. The Eastern Delaware are the descendants of the so-called main body of Delaware that were systematically moved westward in . . . reservations that were . . . established first in Ohio, then Indiana, . . . Missouri, and . . . Kansas [Obermeyer 2009:182].

Two federally recognized tribes—the Delaware Nation in western Oklahoma and the Stockbridge Munsee in Wisconsin—represent two Delaware-descended groups resulting from these moves. However, in 1867, the Eastern Delaware Tribe was relocated to lands of the Cherokee Nation in Oklahoma. Although the group sought independent federal recognition, it remained part of the Cherokee Nation by government decree until May 27, 2009, when it was granted separate status as an independent federally recognized tribe (*Federal Register* 2009). Given the complicated history of Indian peoples, installations in the various states where they resided in the past may fail to include some or all Delaware-descended groups in their consultation efforts unless an affiliation study has been completed.

A *Desk Guide* of military installations and federally recognized tribes located in the south and eastern United States was compiled under a separate DoD Legacy Program-funded project (Legacy 2007a, 2007b). In Part I of the *Desk Guide* (Legacy 2007a), each installation is briefly described; it also provides the telephone number of the CRM, the installation website, and other basic information, as well as a list of the tribes potentially affiliated with the installation. For example, the Seminole Nation of Oklahoma and the Seminole Tribe of Florida are listed as the only potentially affiliated tribes for Patrick AFB in Florida, whereas eight tribes are listed as potentially affiliated with the U.S. Military Academy. Part II of the *Desk Guide* (Legacy 2007b) provides brief histories of each tribe and information about their systems of government; key contacts are also provided. The information is quite current and would be helpful in the process of identifying affiliated tribes.

Federal recognition of Indian tribes as groups who meet certain criteria and are eligible for government-to-government consultation under the legal mandates discussed in Best Practice 1 is an ongoing process. Hence, it is recommended that researchers conducting cultural affiliation studies be aware of the current status of groups petitioning for federal recognition. Groups petitioning may at some future date become federally recognized. For example, the Tutelo Nyhassan Tribal Nation in Ohio submitted a letter of intent to petition in July 2005, but no decision has been made. The Kickapoo Traditional Tribe of Texas submitted its letter of intent to petition in 1979 and in 1981 was determined to be part of the Kickapoo Tribe of Oklahoma, a tribe that already held federal recognition. The legislation allowed the Kickapoo Traditional Tribe of Texas to organize as a separate body. Information on the status of petitioners in any state can be found at List of Petitioners by State (2008). In addition to these groups, some states have their own process for state-recognized tribes. State-recognized tribes may or may not be federally recognized.

It is recommended that each installation determine if petitioning groups, state-recognized tribes, or other groups that do not have federal recognition should be brought into the larger group of federally recognized tribes with which it consults, or if they will be consulted separately as “the public” under Section 106 of the NHPA. The decision may be controversial. Federally recognized tribes may resent non-federally recognized groups in their government-to-government consultation; those petitioning for federal recognition may consider any exclusion from consultation with federally-recognized tribes to be discriminatory. At Nellis AFB and the Nevada Test Site, petitioning, but not yet federally recognized, groups are included in the consultation process. There, the decision for inclusion/exclusion is referred to the CGTO for its recommendation to the installation (Keith Myhrer, personal communication 2009; Richard Arnold, personal communication 2009), a process that has proven successful to date. Stoffle (1998:78) offers the following recommendation:

Federally unrecognized groups, Native American organizations, and pan-Indian organizations [should] be added to the consultation when it can be demonstrated that they do represent special ethnic-group perspectives relevant to the cultural resource management issues of concern to the DoD installation.

Finally, it is important to recognize that consultation is multi-faceted. Installations routinely consult with the public, federal and state agencies, and others as required by NEPA, NHPA, and other requirements. As information on projects is released to the public, individuals who are members of federally recognized, petitioning, or pan-Indian groups who may or may not be part of the groups being consulted could express interest. In such cases, consultation with the public has potential to overlap tribal consultation. During project planning for public participation, particularly for large projects or those with potential for controversy, it is recommended that the

installation be aware of the cross-over to tribes, both federally recognized and petitioning, or others ranging from state-recognized to “pan-Indian” NGOs.

Recommendation: Plan to complete cultural affiliation studies early in efforts to identify natural resources of importance to tribes. Failure to include all tribes may, at best, require expenditure of additional funds and time to revisit decisions thought already put to rest. At worst, the failure can result in distrust of future actions.

Recommendation: Ensure affiliation studies are thorough and use considerable background material. Tribal histories are often complicated by intentional migrations, forced removals, placement of the same tribe on multiple reservations, or other factors. Capture of the full list of tribes affiliated with managed lands requires careful study.

Recommendation: Be aware that some tribes may claim an interest in only one or a few DoD-owned or impacted resources, but do not consider their tribe affiliated with the entire installation. Such claims will require consultation with that tribe under Section 106 of the NHPA and other legal requirements.

Recommendation: Determine, in consultation with federally recognized tribes, whether to consult with non-federally recognized groups separately or with the other consulting tribes.

Recommendation: Prior to consulting, establish a clear understanding of each party’s legal standing under law(s) applicable to the situation at hand. Some non-federally recognized groups may have submitted petitions to the BIA to become federally recognized; others may be state-recognized tribes.

**Best Practice 6: The installation acknowledges shared issues with tribes when they are encountered during consultation about natural resources of importance to tribes.**

As tribes are consulted about natural resources of importance to them, they and installation managers will begin to identify that some issues faced by DoD land managers are also of concern to tribes. Discussions about these issues can benefit both the DoD and the tribes, and in many of the discussions, all parties will recognize that the tribes and the DoD have their own unique perspectives of the issues. Some of these issues may be unique to an installation that manages lands with one or more unusual resources. Others, however, are of a more general measure. Only a few as examples are presented here to suggest the types of issues on which tribes and installations will share thoughts and seek solutions.

*Dividing the Land*

DoD-managed lands are, like other large land units, subdivided into smaller units that make sense for the military mission of the particular installation. At Army installations, the managed land is subdivided into training areas. Air Force installations have a different type of subdivision: ranges.

Indian people also subdivide large land masses, but the ways they do so would likely differ from the ways a military base would subdivide the land mass. Indian peoples’ subdivisions would be based on their worldview. For the Southern Paiute and Western Shoshone tribes in the Great



Basin, the land is conceptualized in three layers (Stoffle et al. 1990:78–86): (1) nations or holy lands that represent all the land mass that they and their relatives co-inhabited; (2) districts that represent smaller areas that were inhabited and used by relatively close-knit populations; and (3) local use areas that are smaller still and contain a variety of natural resources (springs, reeds, nut trees, other food sources, etc.) that could serve as base camps for families. Other Indian people view land subdivisions differently. For example, the Seneca, whose former territory was composed of all lands of New York west of Seneca Lake including lands in Pennsylvania and Ohio, are divided into three primary Seneca communities. However, they do not recognize firm boundary lines between the aboriginal territories of each other: “There is no definitive method to delineate traditional territories by nation because the people are culturally affiliated by clan, belief, and language, which transcend geographical boundaries” (Legacy 2007b:124).

It is recommended that these unique perspectives on the same issue (land subdivision) be shared. The way the commander at an installation thinks about the land may/may not be how tribal people think about it. By understanding the diverse viewpoints on the same issue, misunderstandings can be avoided, or at least smoothed.

### *Using the Land*

It is important to explain how the military uses the land today. That use is directly tied to the mission at each installation. On the ranges at Hill AFB, Nellis AFB, and other Air Force installations, direct ground disturbances are generally limited. Keith Myhrer (personal communication 2009) estimates that only about 10 percent of Nellis AFB-managed lands receive direct impact. Noise impacts during overflights at Air Force installations can, however, be disturbing during visits to Indian sacred sites both on and off managed lands. Land training in on-road and dismounted pedestrian and vehicular off-road maneuvers, construction of fixed sites, target ranges, and other infrastructure needs are commonly associated with U.S. Army, Marine, and National Guard installations. These training needs can result in direct impacts to natural resources considered important to tribal people. Vegetation loss can occur. If the affected plants were to important resources for medicine, food, or other uses, this could be a source of concern for the tribe(s). Moreover, on bases such as the National Training Center that have heavy annual training schedules, access to important natural resources may be quite limited. As tribes are consulted, it is recommended that these uses be clarified. They are key in establishing the foundation of tribal decision-making about their comments on projects and programs at the individual installations.

*We became aware we were overflying Shoshone and Paiute lands but we didn't have a formal way of communicating with them. So the base commander visited the Shoshone. While he was talking to them, he was overflown and the windows rattled. [The Shoshone] said, "You see what we mean?"*

Tad McCall,  
Then-Deputy Assistant  
Secretary of the Air Force for  
the Environment  
(quoted in Williams 1998)

The natural resources program and the elements of that program represent another shared issue between the installation and the affiliated tribes. Tribes used the natural resources in their ancestral lands for food, tools, medicine, storage, manufacture, and a number of utilitarian functions. They also used them for spiritual purposes. In some cases, the resources that became inaccessible when military lands were withdrawn have become “symbols of a people’s ethnic identity and historic experience” (Stoffle et al. 1990). This type of symbolism underlies many tribal concerns for the natural resources on DoD lands. NRMs at installations are concerned with

protecting sensitive species and maintaining the sustainability of military lands for training. Thus, the NRM is concerned with, among other things, what resources are located on the installation, their long-term viability, and issues related to erosion, introduction of invasive species, and over-abundance of species. Tribes and land managers can sometimes aid each other when they collaborate to reach a shared understanding. Richard Arnold, in the *Afterword*, notes that the CGTO at Nellis AFB encouraged the installation to consider and implement the Native American approach to pinyon pine management. When implemented, it resulted in significant cost savings. Not all installations will have such case studies, but if discussions that lead to such results are undertaken, positive results may occur.

### *Distance Matters and the Costs of Consultation*

Distance matters, and it is a prominent issue in the costs of consultation. On the one hand, the installations want to identify and consult with all tribes with an interest in their lands. Similarly, the tribes with those interests want the installations to consult with them. As recommended in Best Practice 2, government-to-government consultation is best carried out in face-to-face meetings. The fact that, as stated, the only parties who can ultimately say whether certain natural resources have value to them are the tribes themselves leads to the other side of the coin: distance. In many areas of the western United States, at least some of the tribes reside relatively close to installations associated with their ancestral lands. Consider, however, Fort Belvoir in Virginia. Potentially affiliated tribes include the Absentee Shawnee Tribe of Indians of Oklahoma, Catawba Tribe of South Carolina, Eastern Band of Cherokees of North Carolina, Cherokee Nation of Oklahoma, and United Keetowah Band of Cherokee Indians of Oklahoma. The tribes in the Carolinas are certainly closer, but all reside out of state, and those in Oklahoma are at considerable distance from Fort Belvoir. Similar situations exist for many installations.

Face-to-face consultation in these types of situations presents challenges. One option is for land managers to travel to tribal headquarters to meet with tribal officials. However, this option can result in relatively heavy travel schedules for installation staff in order to meet with all tribes, and tribes who were forcibly removed long ago may not know what resources exist on the installation that might be of concern to them. Another option is to request that tribes travel to the installation. Although this has benefits, tribes also have limited staff and do not have travel budgets to accommodate this type of consultation.

DoD has no written guidance supporting tribal travel or per diem for tribes. Part E2.4 of DoD Instruction 4710.02 states:

Consultation should take place at a time and in a location convenient for tribal representatives. DoD staff may find it necessary to negotiate the time and place for consultation, recognizing that many tribes do not have an operating budget that will pay for tribal representatives' transportation and per diem, and that tribal representatives may have existing work, community, and family commitments.

The preceding does not say DoD branches should support, or even strive to support, actual costs for travel/per diem. In their handbook on consultation with tribes, the ACHP (2008a:11-12):

Encourages federal agencies to take the steps necessary to facilitate tribal participation at all stages of the Section 106 process. These steps may range from scheduling meetings in places and at times that are convenient for Indian tribes, to paying travel expenses for

participating tribal representatives. Indeed, agencies are strongly encouraged to use available resources to help overcome financial impediments to effective tribal participation in the Section 106 process.

The DoD, like other federal agencies, is influenced by this non-DoD guidance. It is not, however, a requirement.

A preferred solution to this shared issue cannot be recommended. Agencies and installations have reached various solutions. Some of those solutions have been welcomed by the tribes; others have not, particularly in cases where the tribe has not been able to travel to the installation or project due to lack of funding or in cases where the tribe has traveled but not been reimbursed. In sum, distance does matter, and it is recommended that the issue is one that be discussed between the installation and the tribes to reach an understanding of the shared issue

Recommendation: Share unique perspectives on the same issue (such as how the military subdivides the land versus how the tribes subdivide the land) when different perspectives surface during consultation. By understanding the diverse viewpoints on the same issue, misunderstandings can be avoided or at least smoothed.

Recommendation: Explain how the military uses the land including both impacts and the natural resources programs to maintain sustainability of training lands. Tribes may be aware of the impacts but may have limited knowledge of military programs to restore the land.

Recommendation: Listen to how tribes used the land. Some tribal practices focused on sustaining selected resources. Determine if collaboration of new and old practices would be feasible or practical.

Recommendation: Establish a policy on how the installation will handle the costs of consulting with tribes located at some distance from the installation. Explain the policy to the tribes in order that expectations are understood.

**Best Practice 7: The installation manages confidentiality, an issue of concern to tribes, by discussing it with tribes during project or general management planning.**

Tribes differ in their degree of openness when discussing where resources of concern to them might be located or why the resources are important to them. Indian people may feel that talking about these resources releases confidential information. As Stapp and Burney (2002:158) write:

In particular, tribal members don't discuss human remains and burial locations. Likewise, they are cautious about divulging locations where food and medicines are procured. This information can also be sensitive and confidential. The Creator could take these necessities away if they are shared with others. Maybe not, but better safe than sorry.

*Native people rarely need to explicitly identify these kinds of places, much less publicize their whereabouts. To the contrary, it's non-Indians who want to identify, catalog, record, photograph, and, whenever possible, publish their findings. These situations cause confusion and distress to Indian people.*

Stapp and Burney  
(2002:158)

The people in the tribes who may know the most about these resources are the elders, and they may not wish to speak directly with outsiders, particularly about resources important to their traditions. They may also be reluctant to speak of the resources because of the time they have been separated from the installation's lands. For example, one of the tribes potentially affiliated with Fort Benning in Georgia is the Alabama Coushatta Tribe of Texas. Because the tribe settled in East Texas in the early 1800s, members may collectively know the types of resources of concern, but their memory of where those resources might be located on Fort Benning in Georgia could be dimmed by the 200 years since the Alabama

Coushatta moved west. Another tribe potentially affiliated with Fort Benning, the Miccosukee Tribe of Indians of Florida, is closer to the Fort Benning lands. However, since the installation lands have been generally inaccessible since it was established in 1918, this tribe too may have little knowledge of where the resources of interest might be located.

There is no one answer to eliciting information about natural resources of concern in the context of American Indian concerns about resource abuse and confidentiality. Certainly, developing a long-term, trusting relationship with the tribe through meaningful consultation can aid in overcoming fears of abuse of the data. In addition, it is helpful to discuss confidentiality with tribal representatives—what type of information they want protected, how much can and should be kept confidential, where such data will be housed, who would have access, etc. It is sometimes appropriate to contract with professional archaeologists, ethnographers, and anthropologists to acquire information on natural resources from the tribes or make site visits. As one example, the TCP study for the Sparrevohn Radar site was undertaken by Dr. James Kari, an anthropologist with more than 30 years of experience with the language and culture of the people of Lime Village, a Native Alaska village (Kari 2006). His prior experience with this and other Dena'ina villages was beneficial to both parties. For the Air Force, he was able to provide the information it needed to proceed with its environmental planning. For the residents, Kari (2006:10) provided the Lime Village Traditional Council with a draft of his report to give them input into the conclusions he derived from a series of interviews and other background materials and allowed them the opportunity to extract information not suitable for publication. He also stated, "I have also taken it upon myself to copy numerous tapes, maps, and reports and to present these items to the Lime Village Traditional Council" (Kari 2006:10). In cases like these, where there is clear, meaningful collaboration with the native people, experienced professional anthropologists can be an asset.

At Nellis AFB, tribal people work as full-time tribal field crewmembers with archaeological crews. As a result, archaeologists say they have gained a better understanding of the significance of natural resources (caves, rockshelters, plants, etc.) to the affiliated tribes (Grant and Wenzlau 2008), while Indian people believe they have not only brought new perspectives to archaeologists but they have also achieved new understandings of archaeological methods and goals. Gerald Kane (personal communication 2009) of the Bishop Paiute Tribe stated: "At Nellis, I have learned things from

*As with most other aspects of the program, the [field] teams evolved over time and met with some resistance in the beginning. Initially, the tribal people were to "just look," and some contractors and others resisted the idea that the tribal members could be compensated. However, the CGTO showed that levels of compensation could be based on experiences elsewhere. The base rate began as \$150 per day.*

Richard Arnold,  
Pahrump Paiute Tribe,  
2009

others and teach them to our people. I learn how archaeologists do things and take those back to our people.” Sarah Herr and colleagues (2009:46), working on Western Apache sites in Arizona dating from ca. 1600–1850, employed knowledge provided by Apache cultural advisors and wrote that the advisors added “detail and perspective to places that have been documented by archaeologists and historians.”

Stoffle (2001:28) advocates the use of ethnographers working one-on-one with the tribal person to allow the person privacy. He notes that these interviews should have clear goals and specific, well-defined topics related to those goals. In some cases, other solutions are needed. One tribe flatly refused to work with ethnographers but was willing to speak with a Forest Service engineer who had grown up nearby and “knew how to sit down at people’s kitchen tables and listen” (King 2003:140). In one study at Nellis AFB, interviews of tribal members were accomplished by tribal members who were the researchers hired for the project (Henderson 2008).

**AIR FORCE OFFICER** (*pointing to a map*): We need to run a fiber-optic line from this [MX] silo to that [MX] silo, right along here.

**ELDER** (*after conversing with his colleagues*): That’s not a very good place.

**AIR FORCE OFFICER**: Well, what about if we ran it over here?

**ELDER**: Hmm. Sorry, that’s worse.

**AIR FORCE OFFICER**: Over here?

**ELDER**: Ah, that’s better.

King  
(2003:179)

In general, because of the concerns about confidentiality, it is important that during the planning process the installation consider the extent of the information that is needed. Is it necessary to know a substantial amount about a TCP or why it is important to the people who consider it special? The answer is: “probably not.” Instead, managers need sufficient information to know if something of concern exists, and if it is significant to the tribe and therefore eligible for inclusion in the National Register. If it is significant, then will it be affected by the installation’s activities, and, if so, how might the impacts be lessened or avoided? For proposed projects that will result in ground disturbance, this sidebar presents an imaginary conversation that would elicit information needed for selecting alternatives without requiring a tribal elder to reveal much information about resources of concern.

Finally, when considering confidentiality issues and discussing them with tribes, Section 304 of the NHPA is sometimes assumed adequate to maintain confidentiality. This is an important tool, but it *only* applies to properties *already* listed on or determined eligible for inclusion in the National Register (ACHP 2008b:20). Therefore, information about properties that have not gone through this process may not be protected. During project planning, it is important to take this fact into account.

**Recommendation:** Consider confidentiality issues early in project and program planning to ensure all parties understand each other’s position and how it will be handled.

**Recommendation:** Be aware that tribes may be reluctant to share information about natural resources of concern due to confidentiality issues or because speaking about them may cause them harm. These concerns vary widely among tribes.

**Recommendation:** Offer to have elders and others with knowledge contacted via intermediaries if there is concern about how the knowledge they share will be used.

**Recommendation:** Employ professional anthropologists to elicit information about important natural resources if they can work in collaboration with the native people. In other cases, there may be other outside individuals whom tribal people know who can aid in the identification process.

**Recommendation:** Offer tours of the installation to familiarize tribes with the current setting of ancestral lands and to discuss information from background literature search. Tribes may lack familiarity with the locations of places important in their oral traditions if they have been removed long distances from those lands or if the DoD-managed lands have been inaccessible for considerable time.

**Recommendation:** Consider alternative means to elicit information that tribes consider confidential about natural resources of concern. What is successful at Hill AFB in Utah may or may not be successful at Fort Bragg in North Carolina or the Pensacola Naval Air Station in Florida. Discuss these alternatives with the tribes.

**Recommendation:** Consider the amount of information needed when planning the project or program. When there is a heightened concern for confidentiality, it may be possible to elicit the briefest amount of information without details about why the resource on the installation is important to the tribe.

**Best Practice 8: The CRM and NRM use existing DoD contracting best practices to achieve the desired outcomes that were established during project or program planning.**

DoD installations have considerable experience contracting for services. Most CRMs and NRMs do not require suggestions for developing scopes of work that will achieve the outcomes established during project planning. There are also many DoD-sponsored classes for acquiring expertise in these skills, and networking among land managers within the DoD branches provides informal training in contracting and developing scopes of work.

Installations can consider contracting with tribes directly. Sole source contracts enable the government to let a contract with a particular tribe by virtue of the tribe's expertise about their culture. Installations can also consider directing archaeological or historical prime contractors to subcontract with tribes. As noted above, tribal people work as functional team members on archaeological surveys and other projects at Nellis AFB in an arrangement that has benefited all parties (Arnold personal communication 2009; Myhrer personal communication 2009). The ACHP (2008a:12) provides the following advice:

[W]hen the agency or applicant is carrying out its duty to identify historic properties that may be significant to an Indian tribe, it may ask a tribe for specific information and documentation regarding the location, nature, and condition of individual sites, or even request that a survey be conducted by the tribe. In doing so, the agency or applicant is essentially asking the tribe to fulfill the duties of the agency in a role similar to that of a consultant or contractor. In such cases, the tribe would be justified in requesting payment for its services, just as is appropriate for any other contractor. Since Indian tribes are a recognized source of information regarding historic properties of religious and cultural significance to them, federal agencies should reasonably expect to pay for work carried out by tribes. The agency or applicant is free to refuse just as it may refuse to pay for an archaeological consultant, but the agency still retains the duties of obtaining the necessary information for the identification of historic properties, the evaluation of their National Register eligibility, and the assessment of effects on those historic properties, through reasonable methods.

The ACHP advice is not, however, a mandate. Moreover, tribes may not have either the staff or the desire to contract with DoD or other agencies.

When developing scopes of work and contract specifications regardless of whether they are developed for contracting with tribes or non-tribal professionals, it is recommended that they have clear goals that were developed in consultation with tribes. When the goals are not fleshed out, it will be difficult to select the appropriate methods to be followed. It is also recommended that the scopes be as specific as possible. Scopes that are vague will likely result in products that do not meet the project goals. In a trite, nonmilitary example, if an expert is needed to train a dancing dog, it cannot be specified just that an expert train the dog; it must be specified that the dog must be trained to dance. Similarly, if installation command needs to know which rock shelters they can use during training, the scope must specify that all rock shelters (rather than a selected sample) be inspected.

Recommendation: Provide CRMs and NRMs opportunities to learn contracting best practices, including refresher courses.

Recommendation: Consider contracting with tribes to seek their expertise about natural resources of concern.

Recommendation: Develop well-defined goals/outcomes in consultation with tribes during project planning. These will ensure a scope of work that defines the deliverables so that bidders understand the work that is to be done.

## **PART II: BEST PRACTICES FOR IDENTIFYING, EVALUATING, AND MANAGING THE RESOURCES**

Part II of Chapter 2 discusses best practices in use to identify, evaluate, and manage natural resources of importance to tribes affiliated with DoD installations. Best Practices 9 and 10 focus on various aspects of the identification process. Best Practice 11 is concerned with evaluation of natural resources of concern to tribes. Finally, Best Practices 12 through 14 center on issues surrounding management of such resources. Included are practices that are practical and have been applied at one or more installations or by non-DoD land managers who have initiated consultation about these types of resources. It should be noted these are not the *sole* means to achieve an understanding of what natural resources exist on DoD-managed lands that are of concern to tribes or how to manage them. Land managers at individual installations working with tribal representatives will undoubtedly find other unique and appropriate solutions for identifying and managing these resources within mission requirements.

### **Identifying the Resources**

CRMs and NRMs on installations have abundant experience and well-honed methods to identify historical, archaeological, and natural resources. Their expertise and the methods they use can be employed to identify natural resources important to tribes. Therefore, the two best practices discussed below focus on how to practically integrate their experience and methods with issues that need to be considered in planning to identify such resources.

**Best Practice 9: Because the identification of natural resources of concern to tribes takes time, the process to identify them is managed through the planning process.**

The identification process itself requires a commitment of time. For this reason, identification of natural resources of concern to tribes with historical and cultural affiliation to an installation's lands should be accomplished as early as possible. NRMs and CRMs understand that project and program planning is improved if information on potential resources of concern is known well in advance of decision-making. Hence, consultation about these resources is best carried out during general management planning when issues of proposed projects and alternatives are not part of the discussion.

The time commitment is needed to meet and consult with the affiliated groups. It should be anticipated that this consultation will not be a single meeting, but rather a series of meetings. If the installation is consulting individually with tribes, several meetings with each tribe will likely be required. In addition to meetings, one or several field visits with tribal people may be needed.

To illustrate the amount of time that such a process takes, the following briefly describes a study of one natural resource type at Nellis AFB. In 2005, this installation embarked on a Native American-driven study of the intermontane dry lakes<sup>4</sup> on the NTTR (Henderson 2008). Since the 1940s, these dry lakes have been used for construction of targets to train fighter pilots (Figure 6). Archaeological inventories of many of these intermontane basins had been undertaken, but managers at Nellis wanted a better understanding of the Native American perspective of these lakes. During its 2005 Native American Program Annual Meeting, the CGTO selected four tribally designated representatives to conduct the research; an archaeologist at Nellis served as project manager. Development and review of an appropriate scope of work and the methodology for the project took a year. After the kick-off meeting in February 2007, six day-long meetings took place that year; four of these were field visits to four preselected dry lakes on the NTTR. Previously recorded sites were inspected during field visits, but participants also conducted surveys of the margins of the dry lakes to identify and describe the vegetation present. Two of the Native American researchers also conducted interviews among their own and other tribes, focusing on the use of the dry lake margins and their botanical resources. The interviewees were selected from the 17 tribes with ancestral ties to the NTTR. Some interviews were accomplished in the interviewee's home; others were done in the field. The final report (Henderson 2008) was issued in May 2008, three years after the project's selection.

The process could have been accomplished more quickly: the scope could have been completed in a few months rather than a year; field visits that were spread over a period from April through late October 2007 could have been scheduled closer together. However, individual plants do not all grow, bloom, and mature at the same time; closer scheduling may have resulted in a diminished inventory of the species present. Moreover, staffs at DoD installations have many demands on their time and manage multiple projects rather than just one. Tribes, even those with THPOs, have the same staff and workload limitations that staff at DoD installations face. Tribes receive multiple requests from a host of federal agencies and project proponents for site visits, project reviews, and other tasks on a weekly, if not daily, basis. They also handle issues related to cultural resources on their own lands. The tribal representatives for the playa study resided at some distance from the NTTR. They had to arrange for their travel. They also met and interviewed people ranging as far away as Big Pine, California, and Little Salt Lake, Utah—a

---

<sup>4</sup> Sometimes called playas, these dry lakes are found in internally draining basins and can hold water temporarily after heavy rains.





Figure 6. A seep mound on Indian Springs Valley dry lake, Nevada Test and Training Range (photo courtesy of Nellis AFB).

considerable distance. The logistics in arranging and providing for interviews or site visits require time. As well, ranges and training areas can be temporarily restricted as mission activities or inclement weather limit the time available for environmental studies. In sum, the process takes time.

While the identification process takes time, it is best managed when carried out during general management planning. If the installation conducts the identification of such resources during environmental planning for proposed project-specific undertakings, the discussions with the tribes can be distracted by issues related to alternatives, impacts, and mitigation. These distractions may result in frustrations on both sides. If, however, the installation conducts identification efforts well in advance of proposed projects, the resulting information on what may or may not be impacted when a project is proposed will enhance decision-making.

Studies conducted during general management planning have another benefit: providing early information on the *types* of natural resources that are important to tribes. As one example, the roots or bulbs of camus (*Camassia quamash*), a low-growing plant in the Lily family that is native to the Pacific Northwest, was and is an important “crop” for tribes in the region (Kirk and Daugherty 2007:67). This information is important to Joint Base Fort Lewis McChord and the Yakima Training Center. The installation knows that it is important to the tribes and is aware of the places on its managed lands where camus grows. When planning for project-specific undertakings, NRM and CRM can anticipate whether or not impacts to camus is an issue of concern for the undertaking. In these and similar cases, the installation would consult with the affiliated tribes, but would not need to undertake a formal identification study for the plant.

Hence, prior knowledge of resources of concern can reduce the need for formal inventory of 100 percent of DoD lands.

As noted in Best Practice 6, distance matters and it is recommended that it be considered in planning any level of effort because some of the participants may have to travel long distances from their homes to meet with installation personnel. Many participants live in rural settings where air travel is not an option. One Native American participant in the Nellis AFB meeting for this DoD Legacy Program project traveled more than 260 miles each way to attend; the others each traveled nearly 200 miles each way. In the dry lake study noted above, some field visits required as much as three and four hours driving time just to reach the dry lakes. When the time spent at the field location and the return travel time are added to that effort, consideration of distances will help to plan the time needed to accomplish the goal.

- Recommendation: Begin the identification process early. Awareness of potential concerns about resources on managed lands facilitates project planning.
- Recommendation: Recognize that the process will require time. Both installation staff and tribal staff are limited and multitask on a daily basis. Requests for immediate review of scopes of work, visits to the field, and other activities may not be accepted. This may not indicate a lack of interest, but simply may reflect the limitations of time and staff.
- Recommendation: Whenever possible, carry out consultation about, and identification of, natural resources of concern to tribes during general management planning. If the installation conducts the identification of such resources during environmental planning for proposed projects, the discussions with the tribes can be distracted by issues related to alternatives, impacts, and mitigation.

**Best Practice 10: Through consultation the installation and the tribes establish the goals and methods for identification of resources to improve outcomes and budget adequate time and funding.**

A key to successful identification is reaching a clear understanding of the goals of each individual study. Is it, as for some botanical surveys and nearly all archaeological surveys, to identify *all* species/sites present and where they are located in order to plan for sustainability, significance, or management? When a project is proposed or mission-training requirements are recommended for changes that may physically, visually, or audibly affect natural resources of concern to tribes, perhaps the full range of resources (plants, animals, water systems, topographic features, landscapes, etc.) needs to be considered in planning the identification process. However, if the identification effort is for general management planning—such as the range and the types of resources present in one sector of the installation—perhaps background research and an extended discussion with affiliated tribes are sufficient to identify the range of resources in that sector likely to be important to affiliated groups.

The decision about how extensive the identification efforts will be is largely driven by the legal requirements underlying the proposed activity. If it is an undertaking, then Section 106 of the NHPA will take the lead. Management planning for ICRMPs and INRMPs will follow the requirements in DoD Instruction 4715.3. It is recommended that identification surveys conducted under Section 106 and Section 110 of the NHPA be planned to include consideration of natural resources.

Regardless of why the installation needs the identification effort, it is recommended that decisions about the goals of identification and the methods to be used be established in consultation with the tribes. Only the tribes can definitively state if a resource is or is not a concern to them. As Stapp and Burney (2002:159) point out, “. . . if tribal members, including elders, are not involved in such an endeavor, it is, for all practical purposes, a futile exercise.” Therefore, since the tribes have to be involved at some point in the identification process, it makes good sense that they also be involved in establishing the goals of the study and the methodology to be followed. Failure to contact the tribes during project planning can have undesirable consequences. Burney (2009:101) worked with the Yankton Sioux after the U.S. Army Corps of Engineers conducted an archaeological assessment for an expansion of a South Dakota state park on land that had formerly been occupied by a Sioux community, and, based on the assessment’s negative results, permitted the expansion. He provided the advice below:

Archaeologists working on or near Indian lands would do well to listen to and work with the Indian tribes to the greatest extent possible. Indians, especially native populations residing in their traditional homeland . . . are often well informed about the surrounding landscape, historic use of the land, and traditional cultural properties, including previous camps, settlements, and burials. Yankton Sioux oral history and contemporary testimony supported the well-known fact that White Swan [where the park expansion was being done] contained human burials as well as substantial other cultural resources, such as sites used for plant collecting, memorial gatherings (*wokiksuyes*), prayer gatherings, and for ceremonies like the Calumet ceremony (*hunka*), traditional pipe ceremonies, Sun Dances, and other essential tribal cultural activities. . . . [Indians] are better informed than any outsider—including archaeologists. Understanding this fact inevitably leads to better outcomes (Burney 2009:101).

Since tribal people may have information from oral histories or cultural traditions that indicate the types of resources of concern and their general locations, an exchange of information among the NRMs, CRMs, and tribal people can result in improved, and likely more tightly drawn, scopes of work, more thorough, comprehensive studies, and better informed decision-making. During such an exchange, the tribal representatives will also receive a fuller understanding of the military’s goals for the study, whether it is general management planning or planning for a specific proposed project. As tribal representatives become better informed about the military’s goals for the study, they can offer more informed recommendations.

During the discussions about a study’s goals, it is helpful to be aware that individual tribes may have quite different thoughts about what they desire as goals or outcomes. For example, because diabetes can be high among tribal members, Patty Timbimboo-Madsen (personal communication 2008) of the Northwest Band of Shoshone Nation noted that her people had not been on the lands of Hill AFB for many decades, and expressed an interest in obtaining a list of the plants on those lands. Using a table of medicinal and pharmaceutical plants that she already had acquired, she hoped some of the plants could be used to improve the diet of her people—a diet that needed greater use of traditional foods and foods higher in protein. Members of the Goshute Tribe expressed interest in visiting places on the UTTR that were important to them—such as the springs at Mosquito Willie’s—with their school children to make their tribe’s history come alive and be important to the next generation. Others pointed out that some species, such as bighorn sheep, have been largely pushed from their lands and even from the NTTR because of the introduction of domesticated sheep and cattle who competed with them for forage (see discussion in Appendix A); their absence, however, “does not mean they are unimportant to us” (David Pete, Goshute, personal communication 2008). For these two tribes, then, several perceived outcomes were expressed: (1) an inventory of and access to traditional foods to improve health; (2) access to Mosquito Willie’s, Fish Springs, and other places featured in traditional stories as a means to

educate youth about cultural traditions; and (3) information on resources that have been lost because of invader species to understand how the land has changed from Native Americans' historical experience of it and about which land managers may be unaware. If Hill AFB undertakes a study of natural resources with these tribes, the scope of the study and the methodology would change, depending on whether the installation seeks to address one, two, or all three of these goals, underscoring the need to actually discuss with the tribe(s) the study, its goals, and the methods that will be used to achieve the goals.

The divergent views about desired outcomes illustrate the fact that there is no single tribal perspective. Certain congruencies may exist, but each tribe has its own history and tradition. For example, the tribes associated with Nellis AFB still used the land as recently as the 1940s. Their knowledge of and ties to those lands remain very strong. In contrast, tribes associated with the lands of Elgin AFB and Pensacola Naval Air Station (both in Florida) were at war with the fledgling United States in the 1840s. In that decade, most Seminole were removed to Indian Territory after nearly defeating the U.S. (Mulroy 1993:27). Those who evaded capture remained in Florida, and eventually some of those sent to Indian Territory, now Oklahoma, returned. Today, both groups are federally recognized tribes. However, although the lands of Elgin and Pensacola are ancestral homelands for all Seminole, the Seminole Nation of Oklahoma has had little to no access to those lands, and its perspectives about natural resources of concern on those lands may be quite different from those of the Seminole Tribe of Florida. Thus, it is likely that installations where there are multiple affiliated tribes will find that there exist different perspectives on the goals or outcomes of studies to identify natural resources of concern.

The Native American program at Nellis AFB (see *Afterword*) stands in contrast to the example of divergent views above. Seventeen tribes are affiliated with the lands managed by Nellis AFB. The CGTO consists of 10 representatives from the 17 tribes. These individual representatives speak on behalf of all tribes and when they speak, they speak "with one voice" (Richard Arnold, personal communication 2009). The single voice is achieved by listening at the annual meeting to presentations from tribal people and archaeologists about the results of recently completed projects and proposed new archaeological and historical studies<sup>5</sup>. The CGTO then retires to discuss the merits of each proposed project in private. Following a private discussion, members return to Nellis representatives and present their united recommendations. The effort to speak with one voice is not always easy. However, as a group, they have found that "there is a real benefit to collaboration, with an open-ended research design. We have a blending of ethnography, archaeology, and traditional history" (Richard Arnold, personal communication 2009).

*At first, the tribal meetings had about 50 people. This was too big. Now it's down to 10 people. When you come to this table, you must be willing to listen, willing to share. We have to set aside old wars among the tribes. We must agree to disagree, but if you want to push another idea, you need a better mousetrap. That is, if you don't like something, you have to be prepared to identify and promote a different solution. We try to work in the old way by meeting privately as tribal people, discussing, and seeking consensus.*

Maurice Frank-Churchill  
Duckwater Shoshone Tribe,  
2009

*Agreeing to disagree requires a great deal of respect and time. It is a very high level of functioning within a group, any group.*

Sandra Bricker  
Las Vegas, 2009

---

<sup>5</sup> At Nellis AFB, each proposed project has to include a justification of why it should be undertaken. Myhrer (personal communication 2009), the CRM said, "I asked what was missing in resource identification and evaluation. It is not an easy thing to answer. I found that it was the question: why do we need the study? Now that is part of the proposal."

- Recommendation: Establish clear goals before developing the scope of work for a study of natural resources of concern to tribes. Absent an understanding of the goals, the scope will be vague and prone to misinterpretation by the people who complete the study.
- Recommendation: Develop the goals based on the legal requirements that govern the need for the study.
- Recommendation: Develop the goals or outcomes in consultation with the tribes and Native Alaska villages. They may have intimate understandings of the resources that could alter the goals. Since they are ultimately the ones to judge if a resource is/is not important to them, the best practice is to establish the goals with their input.
- Recommendation: Ensure methods are driven by the goals. Methods needed to develop a presence/absence list of plants would be quite different from the methods needed if the goal is locating stands of specific plants used for medicinal purposes.
- Recommendation: Be aware that not all tribes affiliated with an individual installation will necessarily want the same outcome. Tribes have unique histories and, like other communities, may or may not agree on all aspects of the goals for identifying natural resources.

**Best Practice 11: The evaluation of which natural resources are important to tribes is made by the tribes.**

As stated above, the only people who can determine if a natural resource is important to tribal people is the tribe itself. They are the authorities. If they say it is important to them, then it is recommended that it be determined eligible for listing in the National Register.

In this regard, it is important to understand that Indian people view the land and its resources as intimately interconnected. Moreover, it may not be just a river, a plant, a mountain, or a rock art panel that is significant, but the landscape itself. Downer and Roberts (1993:12) write:

[t]he artificial isolation of important places from the whole landscape of which they are an integral part often violates the very cultural principals that make certain places culturally significant to begin with. Not surprisingly, Navajos . . . have great difficulty in dividing up the physical world in a way that is most comfortable and convenient for cultural resources managers.

Some tribes, then, may consider many or most natural resources on an installation's managed lands significant.

Another aspect of evaluation should be anticipated: as resources of concern are identified—whether plants, mountains, archaeological sites, or structures or buildings—there is a drive to put boundaries on them. Land managers used to dealing with archaeological sites, structures, and buildings may seek to draw lines demarking the edges of natural resources of concern to tribes. If the place is a cave, such a boundary may be appropriate. If the place is a mountain, where would the line be drawn—at tree-line, the base of the mountain, or somewhere else? Should it include the trail commonly used by tribal members to access the mountain? Depending on the type of important natural resources on its lands, the installation may need to denote “areas” of sensitivity on its maps rather than places with concise boundary lines.

Acceptance of the eligibility of all natural resources may be difficult. CRMs working at DoD installations recognize that the evaluation of properties for the National Register is pivotal in the Section 106 process. Properties that are significant become “historic properties” and move on to become the topics of further consultation about how they will be managed or mitigated. Other properties fall out of the Section 106 process and do not move to this level of consideration. They may still be managed, but they are not afforded protection under Section 106. In essence, the Section 106 process allows a kind of triage: some properties may continue to higher levels of consideration and some type of treatment, but many others will drop out. Because of the Indian worldview, few natural resources may drop out during evaluation.

Although this scenario may be uncomfortable, it is not made difficult because of the eligibility determination per se. Rather it is uncomfortable because the CRM and NRM will realize that they may face greater management and treatment challenges. However, management and treatment are not part of a determination of eligibility. Thus, it is strongly recommended that, rather than arguing about significance and eligibility issues with tribal people—the very people to whom the resources are important—the CRM and NRM accept the opinion of the tribes and deal with management issues after eligibility is resolved. King (2003) provides numerous examples where agencies spent considerable funds and staff time refuting the eligibility or boundary of a resource rather than focusing on management and treatment options. Some cases were resolved in favor of the tribe; others were resolved in favor of the agency. However, it is likely that none of the consulting parties was very satisfied by the negotiations or outcomes in these cases, and it is doubtful that many today have trusting relationships with each other. Finally, regardless of the size of the eligible resource or the quantity of eligible resources, under both Section 106 and Section 110 of the NHPA, the final decision about those resources’ management or treatment is made by the federal agency based on project needs, mission needs, and other information. Mount Shasta in California—all of it—is a sacred place to a number of tribes (King 2003:170). The timber on its lower slopes has been logged and today is plantation forest. That logging, says King (2003:175) has not affected its spiritual qualities: the tribes “might not have liked [the logging] much, but it didn’t much change the way the mountain looked from a distance, and from a distance is the only way it can be seen in its entirety.” Eligibility decisions, then, should not be based on management or treatment of resources.

Recommendation: Ask the tribe(s) or Native Alaska villages to evaluate the resource. They are the ultimate authorities on what is important to them.

Recommendation: Understand that as tribes tackle evaluation, the result may be a much higher inventory of eligible properties, and boundaries around many of these properties may be difficult to draw.

Recommendation: Seek to avoid conflating management and treatment issues with issues related to evaluations of significance. Attempts to dispute eligibility with the people who have already stated the resource is important to them usually end with a difficult long-term relationship and do not serve the interests of the installation or the resource.

### **Best Practice 12: The management of the natural resources of concern fits with the installation’s mission.**

The military mission at each installation is a significant factor in determining the way natural resources can and will be managed. The mission is the reason the lands were acquired, and the training carried out on those lands is vital to national security. At the same time, it also is what

positively or negatively affects the resources. The nature of the impacts varies among military branches. Training activities at the Marine Corps Camp Lejeune in North Carolina differ from those carried out at Mountain Home AFB in Idaho. Training activities also vary from one installation to another within the same military branch. Some installations focus more on testing and research. Such is the case for White Sands Missile Range in New Mexico, Redstone Arsenal in Alabama, and Aberdeen Proving Ground in Maryland.

Other mission-related activities are undertaken on DoD managed lands. Cantonments at Fort Bliss in Texas and Fort Sill in Oklahoma are in the process of expanding to accommodate planned increases in stationed soldiers (U.S. Army 2007). Networks of roads, utility lines, and pipelines have been constructed on many installations, some in support of the mission but others for non-DoD entities. For example, state and federal highways run through managed lands of a number of installations including Fort Lewis in Washington, Fort Hood in Texas, Fort Drum in New York, and Camp Shelby Training Site in Mississippi. The Department of Homeland Security's border fence runs along the southern border of the Barry M. Goldwater AF Range in Arizona. Each of these activities can affect resources of interest to tribes.

DoD installations have considerable experience managing cultural and natural resources within their mission. Many installations have historic districts overseen by management plans. Installations may also contain and care for historic properties of known interest to tribes. Prehistoric Native American mounds are within the cantonment of Wright Patterson AFB in Ohio and how they are managed is detailed in its ICRMP. Military and non-military historic cemeteries at DoD installations often contain Native American burials. The grave of Geronimo is at Fort Sill, Oklahoma, and is frequently visited. Jackson's Barracks in New Orleans, headquarters of the Louisiana Army National Guard, held a large number of Indian prisoners in the early nineteenth century. Many died there, and management of the burials is part of the mission environment (Johnson 2009). Management of natural resources of concern to tribes would not represent a new concept, but rather a continuation of current practice.

In sum, the mission of the installation will be integral in determining how to manage resources of concern to tribes, including natural resources. The mission relates directly to the types of ongoing training impacts on the resources, the schedule available for access to managed lands and resources, and the amount of land that may be restricted from access. For example, because of extensive daily training at Camp Lejeune, it is a closed installation with controlled access (U.S. Marine Corps 2006:12-1). Native American access would also be controlled, and impacts to resources are managed through the ICRMP and INRMP. In contrast, Native American access to lands on the NTTR at Nellis AFB is less restricted and impacts are fewer. Keith Myhrer (personal communication 2009), the Nellis CRM, stated: "I have . . . allowed Indians to monitor or access resources if they so request. The only exceptions are in areas off-limits to all but personnel with special clearance." Regardless of which situation prevails at the installation, training schedules should accommodate access for ceremonial or other purposes where possible (Nickens et al. 1993:25). It is recommended that details on training schedules and access restrictions be provided to the tribes to prevent expectations that cannot be met or cause inadvertent conflict.

The current management practices at an installation, as detailed in the ICRMP and INRMP, are also important items to share with the tribes. Tribal people may not be aware of the extensive efforts and practices that are undertaken at installations to ensure sustainable lands. It is

recommended that they be made aware of any current or proposed projects to improve habitats, reduce erosion, or other actions to maintain lands.

Recommendation: Explain fully the mission of the installation to the affiliated tribes. The mission drives the type and intensity of impacts. Also explain non-DoD activities that occur on the installation. Unless the tribal people served in the military (many have), they will need a full understanding of the activities undertaken in order to offer informed recommendations.

Recommendation: Provide to the tribes details about the amount of Native American access that can be accommodated at the installation to prevent misunderstandings.

Recommendation: Discuss with the tribes the installation's efforts to sustain and maintain its lands and assets. Tribal people may not be aware of the extent of programs and projects undertaken for these goals.

### **Best Practice 13: Management of resources of concern to tribes is carried out with open dialogue and frank discussion during consultation.**

As the installation consults about managing the resources important to the tribes, CRMs and NRMs will host discussions with the tribes knowing that there may be disagreements on management policies or strategies. Such disagreements are part of healthy discourse. When the dialogue is open, frank, and respectful, resource managers will have the information they need to make the best management decisions in light of tribal opinions, the installation's mission, and other considerations.

To assist with open discussions, it is helpful to become familiar with tribal perspectives of the resources. As one example, the Spring Mountains west of Las Vegas, Nevada, represent a place of creation for the Southern Paiute tribes; the ICC ruled that these mountains and surrounding areas had been Southern Paiute ancestral homelands before the lands were transferred to the United States. Stoffle et al. (2004:xxiii) note: "While the legal ownership has shifted [to the Forest Service and other federal agencies], the moral, spiritual, and cultural stewardship responsibilities for these lands remain as defined by the Creator, in the hands of the Southern Paiute people." The Southern Paiute, then, would approach management of the mountains as stewards of the moral, spiritual, and cultural heritage that the mountains hold. Other natural resources might be viewed from different perspectives. For example, King (2003:174) points out that even if a mountain is important or sacred, undertaking a project such as harvesting timber *may not* be viewed as an inappropriate action. Regardless of what natural resources (plants, animals, mountains, lakes, etc.) on an installation are found to be important, tribal people will likely offer management recommendations based on how they view the resources.

*Let me give you an example of how we can talk past one another. At Yucca Mountain [Nevada], a group of elders were being taken by DOE [Department of Energy] to visit selected sites. A desert tortoise – an endangered species – was in the road so the driver stopped to let the tortoise cross the road and called a specialist [because tortoises move at such a slow pace]. The Yucca Mountain rules said you had to stop and call a specialist to move tortoises. Goodness, these Indian people have been eating these tortoises, living around them, all their lives. They did not need a "specialist" to deal with the tortoise.*

Richard Arnold,  
Pahrump Paiute Tribe,  
January 2009



NRMs and CRMs should anticipate that tribal people may recommend unique treatments to manage natural resources important to them. As Richard Arnold points out in the *Afterword*, Indian people, particularly those in the western United States and Alaska, have extensive ecological knowledge of the natural environment and have managed resources for sustainability for generations. Tribes affiliated with both Hill AFB and Nellis AFB welcome discussions about the resources as an opportunity to learn from the NRM and the CRM but also to teach people at the installations about some of their traditional management techniques. The U.S. Fish and Wildlife Service (2009:1) notes that Indian reservations often have escaped “conventional land use practices and therefore are islands of high quality ecosystems that attract many sensitive species . . . and support important fish and wildlife resources.” Where affiliated tribes have such lands, consultation with them about treatment may lead to productive recommendations for management and treatment of resources on military installations. At Nellis AFB, resources managers were planning an “elaborate and expensive system to restore springs for bighorn sheep improvements. We showed them the way we have traditionally restored these springs and it is much less expensive. Both parties win” (Richard Arnold, personal communication 2009).

Treatment in some cases will mean removal of some or all of a resource. Avoidance is not always an option, particularly at installations like Fort Irwin in California, Camp Lejeune in North Carolina, or Fort Bliss in Texas and New Mexico. Training on these installations consumes extensive portions of their lands. Native American representatives may view the need to remove or affect a resource as disturbing or offensive. Gerald Kane (personal communication 2009) of the Bishop Paiute Tribe stated:

Our beliefs say that everything is alive. Thus, we try to bless everything as we go along, often with tobacco. Yet, we believe that we all believe in the same God. We pray for protection and do not want anything damaged.

Many other Native Americans will likely feel the same way. The residents of Lime Village in Alaska told Kari (2006:19) of places that they revered: “There is reverence for these places, and the Dena’ina expect these places to be protected from trespass, looting, trail proliferation, or encroachment by outsiders.” In cases where resources on DoD lands will be heavily affected or destroyed, NRMs and CRMs can expect that the discussions with affiliated tribes will be formal and potentially contentious; deleterious effects to resources integral to tribal identity is a serious matter to tribes.

This is not to say that agreements on treatment through some form of mitigation can never be reached with tribes. Myhrer (personal communication 2009) notes that the tribes working with Nellis AFB in Nevada understand the need for training. The Confederated Tribes of the Umatilla Indian Reservation expressed willingness to work with the federal agencies (the Bureau of Reclamation and the Federal Energy Regulatory Commission) and the owner of Mason Dam (in Baker County, Oregon) to find ways to avoid or minimize adverse effects on the Powder River Basin, a place of physical and spiritual importance to them while allowing the agency and owner to proceed with their mission (Karson 2009).

Though agreements can be reached, some are not easily achieved. As an example of a case with a wide gap between perspectives, DoD Legacy Program project 07-370 sought to develop standard operating procedures (SOP) for military installations to follow before, during, and after TCPs have been impacted by fires (Hokanson and Kempton 2008). Fires damage many acres of military lands each year. A symposium was held at the Wyoming Army National Guard’s Camp

Guernsey Training Area with a large group of tribal representatives, archaeologists, and land managers from DoD installations and other federal agencies. In the discussions, Native Americans noted their disagreement with traditional federal fire practices. Essentially, they felt that fire suppression at all costs is not healthy. They noted that fire is a natural process. Additionally, important sites and other resources can be damaged by vehicles, chemicals, or other factors during suppression. After considerable discussion, tribal representatives offered a number of measures that were adopted in the SOP, including prefire measures to reduce fuel loads around rock art panels (Figure 7) and consultation with qualified tribal representatives as part of the damage assessment and rehabilitation plans for TCPs affected by a fire. Through discussion among all parties, a common ground was found.

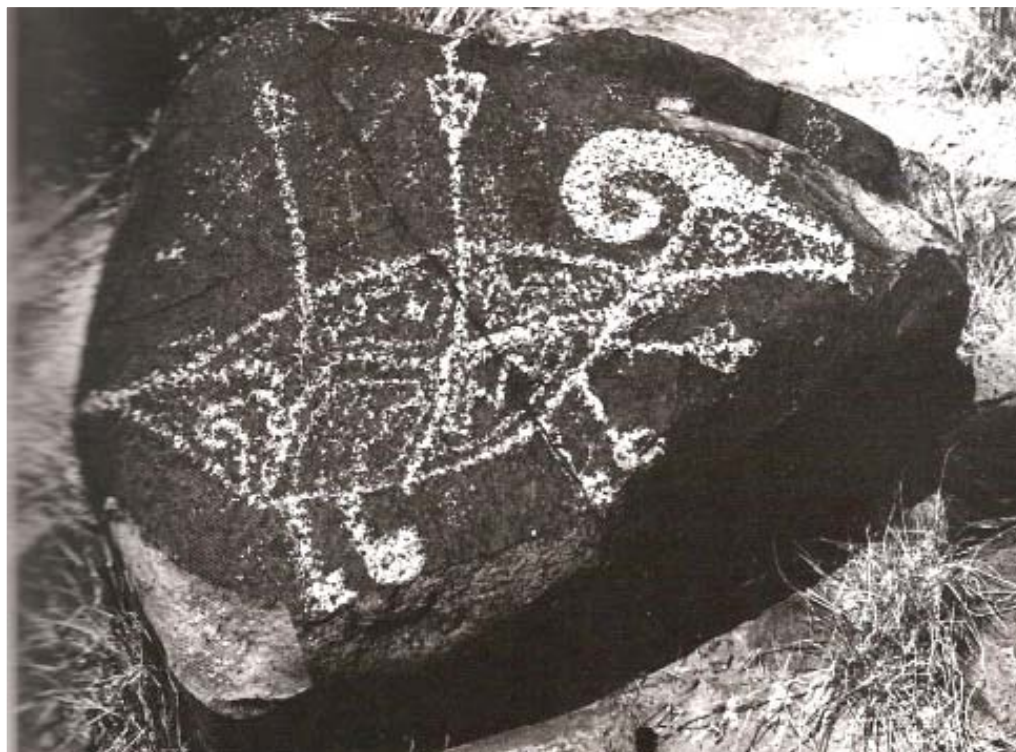


Figure 7. Three Rivers rock art panel in southcentral New Mexico showing a bighorn sheep impaled by hunters' spears. Rock art, often viewed as special by Indian people, can be adversely affected by fires and fire suppression techniques. Prefire measures to reduce fuel loads near such panels can reduce the potential adverse effects (photograph by Myles R. Miller, GMI).

It is worth noting that tribes themselves harvest or “take” resources. Tribes in the Great Basin have rules for these takings:

“Talk to it” is one of the first normative instructions given by tribal elders when they tell others how to interact with plants, animals, springs, mountains, and wind. Before a plant is picked for medicine, a person must approach the plant with an explanation of why the person is there (that is, someone is sick and in need of curing from the plant) and what is being requested of the plant. . . . If a person fails to convince the plant that the request is valid, . . . or if the proper overall respect is not perceived by the plant, then the cure will not occur because the plant will withhold its medicine [Stoffle et al. 1990:15].

No one treatment or list of treatment options will always be the preferred treatment by one tribe or all tribes. It is recommended that the NRM, CRM, and tribal representatives together discuss the possible array of options when situations arise requiring avoidance, minimization, or mitigation of adverse effects to a resource. The outcome will be dependent on the reason for the adverse effects, the installation's mission, the nature of the resource and its significance, and the sincerity of the consultation effort. At times, it is probable that the consulting parties will agree to disagree. In most cases, however, where consultation meets the "meaningful" test set forth in DoD Instruction 4710.2, it is anticipated that the parties will find common ground and reach agreement.

As a final note on consultation, the role of the SHPO should be mentioned. A great deal of the consultation with tribes is in compliance with Sections 106 and 110 of the NHPA. The SHPO is another important consulting party in those cases. For several reasons, we recommend that joint meetings be held with both the SHPO and the tribes present, particularly when determinations of effect and treatment options are under discussion. First, SHPOs often have good relations with tribes, and have likely met with tribal and agency officials concerning non-DoD projects elsewhere. Second, because SHPOs and tribes deal with projects beyond the installation boundary, they may bring perspectives of a broader array of treatment options than have been exercised within the installation. Discussion of these options in a single meeting could be more efficient than discussing them with each party via letters, email, telephone, or in separate meetings. Finally, the SHPO may have other interests than those of the tribes. Under the NHPA, the SHPO is to represent the interests of all people of that state. In representing those interests, the SHPO may, for example, recommend treatment of not only the resources of interest to the tribes, but also of historic properties of Euroamericans, Asian, or other groups represented in the affected properties. These sometimes variant interests or differing perspectives are better handled in face-to-face discussions with all consulting parties present.

Recommendation: Become familiar with tribal perspectives about different resources. Are sacred sites, such as those associated with creation stories, held in higher regard than economic resources? Tribes may have different management concerns for such resources.

Recommendation: Allow tribes to offer their own unique treatment or restoration proposals. Such proposals are based on their traditional practices but are geared to the principle of sustainability just as are the INRMP practices and may benefit current installation practices.

Recommendation: Be open and frank when avoidance of one or more resources is not an option. Tribes may regret these situations, but they have shown willingness to work with individual installations to identify appropriate treatment and mitigation options when avoidance was not feasible. This is particularly the case where the installation has consulted with them early in project planning.

Recommendation: Discuss treatment options with the tribe(s) to find appropriate and creative solutions to impacts. There is no one treatment option or a list of "approved" treatment options.

Recommendation: Bring the SHPO into discussions and meetings with tribes about treatment. They are a key player in consultations under the NHPA and, like tribes, often have information about new or differing treatment options tried elsewhere.

**Best Practice 14: The CRM and NRM determine whether natural resources of concern can be prioritized to facilitate their management.**

On some federal lands attempts have been made to prioritize resources significant to the tribes through a form of triage. Zedeño and Hamm (2001:111–115) describe the process used by the Bureau of Applied Research in Anthropology (BARA, part of the University of Arizona) in several projects in the Great Basin. Adapting (with modifications) a formula developed by Turner (1988) to calculate the importance of native plants to tribes in the Pacific Northwest, BARA created an “index of cultural significance” (ICS) that could be established for each plant or other resource. The ICS is based on such factors as the number of uses of a plant and the number of parts of a plant used, whether the plant is exclusively used for a specific purpose, if the traditional use of the plant is being transmitted to younger generations, and other factors. Higher-scoring plants are deemed to have greater significance, leading to their greater importance when threatened by development or ground-disturbing activities. In such cases “Indian people face a forced choice in which they must single out certain plants for special protection, knowing that doing so increases the probability that other plants are more likely to be destroyed” (Zedeño and Hamm 2001:112). The ICS is called a form of “cultural triage.” It is used to provide managers and tribal leaders a measure that may aid in making decisions about where to spend funds and what resources could be let go, and is only employed in consultation with affected tribes.

A somewhat similar approach, developed by Cushman and Sebastian (2008) in DoD Legacy Program project 06-167, is called “modeling site significance.” Noting that many installations have hundreds and sometimes thousands of sites that have not undergone evaluation for their eligibility for listing in the National Register, they offer a method “based on existing site and environmental data, for assigning known sites to categories that would indicate their potential to yield different types of information about the past” (Cushman and Sebastian 2008:35). Arguing that most CRMs, SHPOs, HPOs, and others evaluate sites by considering the potential of a site to provide information on known data gaps through artifacts and other remains in their original context and spatial location, they set forth rules that can be used to systematically determine site significance without spending large sums of money actually testing unevaluated sites. In their hypothetical example, they set up four categories of sites moving from those with very high information potential that should be avoided if feasible to those that may contain information but for which the tools to tap that information are not yet available. In the latter case, the installation can elect (after consulting with all parties) to preserve a few and allow the others to be impacted. In the former case, all sites would be avoided or subjected to formal testing, determinations of eligibility, and extensive data recovery.

Although primarily aimed at the evaluation of archaeological resources, they also apply the approach to sites with high traditional values, i.e., TCPs. Cushman and Sebastian (2008:39) note that tribes often urge that such sites be determined eligible for the National Register under Criterion A or B, but it is difficult to document that a site is the location of an event important to the tribe (Criterion A) or that it is associated with a specific individual and that that person made significant contributions to history (Criterion B). Instead, Cushman and Sebastian believe that a significance model allows tribal and traditional values to be considered in decision-making for sites that are TCPs for tribes. Whether used for sites or TCPs, the value of the significance model is that it provides the CRM a tool to prioritize which properties will be the subject of consultation and have a general notion of the recommendation that will be made about the properties. For installations that are quite large, such as Nellis AFB with nearly 4 million acres, the model could allow managers an opportunity to identify subsets of the land with greatest importance to tribe(s) to merit most immediate attention (i.e., a specific river valley or intermontane basin, etc.).

It is worth repeating, however, that tribes are often reluctant to specify any one property as more important than another. In the words of one tribal chair consulted about impacts at Yucca Mountain in Nevada:

They are saying [to me], “We are not damaging that, all we are going to do is to cut down that tree.” As an Indian person, I feel I am important, but am I more important than that tree or is that tree more important than me [quoted in Stoffle et al. 1990:168].

Nonetheless, as CRMs Jaynie Hirshi and Keith Myhrer pointed out in discussions with them, money to do projects and preservation is finite, and sometimes there are limited alternatives for projects. In their experience, when made aware of monetary or project limitations, the tribes, however reluctantly, have been willing to make choices.

*... Eldred Elder says that all pointy rock outcrops on the Whiffenpoof Plateau are TCPs associated with his tribal ancestors. This doesn't mean that all pointy rock outcrops have to be preserved, or that no project affecting pointy rocks can go forward; it simply means that Eldred or his tribe has a seat at the consultation table to discuss what should happen to pointy rocks when they're in the way of development.*

King  
(2003:257)

This does not mean that the negotiations about treatment will be easy. King (2003:203), among others (see Stapp and Longenecker 2009:36), notes that particularly when TCPs and cross-cultural values are involved, negotiation “can be a long, difficult, painful process.” Richard Arnold (personal communication 2009) of the Pahrump Paiute Tribe stated:

[T]he military needs to be up front with the tribes. Tribes and bases have to accept that even in the interest of national security they can find common ground. They may find they will both work to triage what is most important. All have to be honest in the process. All have to find a way to move forward.

In the case of Yucca Mountain mentioned above, after a series of meetings of tribal and federal agency representatives, the tribal leaders drafted and signed a resolution that set forth recommendations to the DOE and strategies to reduce adverse effects of ground-disturbing activities upon TCPs. Ranked in order of preference, the first choice was always avoidance, but if that was not possible, the resolution laid out a framework for alternative choices. The resolution is provided in its entirety in Appendix E.

**Recommendation:** Discuss with the affiliated tribes whether cultural triage is an option. If so, the reports published by BARA (Stoffle 1998; Stoffle et al., 2001) provide guidance in how to apply it.

**Recommendation:** Investigate the potential for adapting the site significance model (Cushman and Sebastian 2008) to guide the management of TCPs.

**Recommendation:** Ask the tribes to consider alternative treatment options when avoidance, which is the first choice, is not feasible.

## SUMMARY

This chapter has presented 14 best practices to use in identifying, evaluating, and managing natural resources of traditional or religious importance to tribes. Background discussion, including how the practice has been employed by individual installations and other federal agencies, was provided for each best practice. As well, a series of recommendations for implementing the best practice was presented. Part I of the chapter presented eight best practices

that are carried out as part of the planning process for such a program. They range from ensuring familiarity with the legal requirements for consulting with tribes to gathering background about treaty rights and tribal history and traditions to conducting affiliation studies and how to cope with confidentiality. Part II of the chapter presented six best practices relating to the identification, evaluation, and management best practices. Two of these—understanding the amount of time that will be needed and the establishment of goals and methods in consultation with tribes—are related to efforts to identify natural resources of concern to tribes. They are followed by Best Practice 11 that acknowledges that only the tribes themselves can state if a resource has significance for them and their traditions. The final three best practices relate to the management of natural resources determined to have importance to affiliated tribes. Best Practice 12 recognizes that the installation mission is important in determining the way natural resources can be managed. Best Practice 13 deals with the need to consult with tribes about a range of treatment option. Though avoidance will be preferred, it is not always feasible. The final best practice is concerned with prioritizing important natural resources. Some of these best practices are operating at many DoD installations. A few installations employ most of the best practices, and some have yet to initiate a program.

For installations about to initiate a program to identify natural resources on their lands that are of concern to tribes or for those that are in the process of modifying their program, we emphasize Best Practice 4 that recommended consideration of a number of issues during planning. Paramount among the issues are (1) the amount of decision-making the CRM, NRM, and installation commanders are willing to share in the consultation process; and (2) the commitment that the installation has for development of a Native American program. These are key ingredients in the program. Once the installation knows its answer to these issues, the expectations for the size and scope of the program will be self-evident. From this juncture, it is essential that the program manage these expectations. It is also essential that the goals of the program be recorded in the installation's ICRMP and INRMP. Some suggested language for those documents is provided in Appendix F.

The authors' meetings with the personnel from Nellis AFB and Hill AFB and the tribes with ancestral ties to their lands found two effective Native American programs. Neither program operates through a formal agreement (MOU, MOA, or PA) with the tribes. Beyond this similarity, however, they are quite different from each other even though some of the same tribes are affiliated with both installations. The Nellis AFB Native American program is focused and nearly fully integrated into the broad CRM program. It is included with goals and objectives in the installation's ICRMP (U.S. Air Force 2007a). While the program is not discussed in the INRMP (U.S. Air Force 2007b), the CRM and NRM internally coordinate (Keith Myhrer personal communication, 2009). Tribal people consulting with Nellis AFB are heavily invested in protecting their ancestral lands: they are equally invested in teaching the archaeologists and military personnel about their traditions and cultures, as well as learning about material culture from the archaeologists and about the installation's mission from the military. A formal group, the CTGO, acts as the "voice" of the 17 affiliated tribes recommending specific projects and offering comments on other projects. Some recommendations of the CGTO have been funded and have been carried out wholly or largely by tribal researchers. Ethnographic projects are also undertaken by the tribes affiliated with the installation. Native Americans participate as fully functioning crewmembers on all archaeological investigations. Identification, evaluation, and management of natural resources of importance to the tribes is included as part of the program. The result is a very integrated, active program that has provided new insights into archaeological remains and new ideas for management of natural resources.



The program at Hill AFB differs from the Nellis program. It has less time depth, and thus is discussed only briefly in the ICRMP. Although tribal consultation began in 1999, regular, formal meetings with tribes did not begin until 2005. Prudently, the installation and the tribes are still negotiating the scope of their consultation. Today, Hill AFB holds an annual two-day meeting in the early fall with presentations and demonstrations by tribal people and archaeologists. At the 2006 annual meeting, the Goshute Tribe brought a special request: removal of the 30-year old wreckage of an F-4 Phantom plane from their reservation lands (Figure 8). The ensuing government-to-government consultation brought greater respect and understanding among all parties, and a large, motivated recovery team from Hill AFB successfully removed the wreckage in October 2007. Noting the success of both the recovery and the consultation, Col. Scott Chambers, 75<sup>th</sup> Air Base Wing commander, said:

I'm proud of the emphatic way Team Hill jumped in to tackle this exhaustive restoration project. It's further proof that in the Air Force, there's no expiration date for turning a sensitive situation into an opportunity to promote positive relationships and problem solve alongside the communities we affect (quoted in *Standard-Examiner*, Ogdon, UT, 2007 [www.standard.net](http://www.standard.net) ).



Figure 8. Hill AFB volunteer recovery team enroute to clean up 30-year old aircraft wreck site on lands of the Goshute Tribe (photograph courtesy of Hill AFB).

Today, the CRM at Hill AFB, in addition to the annual meeting, also meets at least twice a year with the tribes who express interest; one of these tribes is the Goshute. The NRM for Hill AFB, working with the CRM, has also begun outreach to the tribes. Future INRMPs may include the program in its goals and objectives.

Thus, within the same physiogeographic region, two DoD Native American programs exist that have identified affiliated tribes and are committed to meaningful consultation programs with those tribes. Both programs even consult with some of the same tribes. Nonetheless, the two programs have quite different trajectories. Importantly, they both work, and they work well. Whatever model an installation seeks to follow—the Nellis AFB model, the Hill AFB model, or another model that fits its mission context—expectations will be established by DoD and the tribes early in the program. It is important that the program be managed to meet those expectations. If the CRM or NRM change, the new manager should be made aware of the prior commitment of the installation to the tribal program and should be instructed to continue to manage to those expectations. If the program does not achieve those expectations, the installation's long-term relationships with tribes will be jeopardized, if not terminated.

If it is necessary to change the commitment, such as when the mission changes in response to decisions like BRAC, it is recommended that the installation discuss the changes and the reasons for the changes with the affiliated tribes as well as what the changes may mean for the Native American concerns. The discussion can lead to negotiation of a new set of expectations in light of the reasons for the changes.



## CHAPTER 3

### CONCLUSIONS

*The critical importance of cultural resource initiatives to the Native community rests on the fact that [these support] the recognition of Native peoples as living, viable cultures possessing human rights and dignity that deserve equal protection in the implementation of cultural resource laws and policy. . . . More importantly, the lessons learned from our interaction will bring meaning to the words of the elders who often say, "It is good that you are listening"*

Minthorn [of Cayuse and Nez Perce descent; 1998:32],  
quoted in Stapp and Burney (2002:196–197)

Natural resources of importance to tribes are part of the Protected Tribal Resources defined in DoD Instruction No. 4710.2, and DoD, like other federal land-managing agencies, is required by law to manage them in consultation with tribes affiliated with DoD-managed lands. For the DoD and the tribes, these resources represent heritage assets. For the tribes, they are vital.

This study began as a one-year study of how to effectively identify, evaluate, and manage natural resources of traditional, cultural, or religious significance to tribes that may be present on DoD managed lands. The end product resulted in a model or *process* for working with Indian people to identify natural resources of concern to them. The study focused on efforts that are already underway to do this at Hill and Nellis AFBs located in the Great Basin. Using that information, the intent was to develop a best practices model that could be used on other military lands elsewhere in the Great Basin. After meetings held at Hill and Nellis AFBs that included consulting tribes, it was recognized that the best practices together represent a process of consulting. As such, the model was generalized to be applicable to installations in any geographic area.

The generalized model contains a series of best practices for DoD installations to consult with tribes affiliated with DoD lands and identify, evaluate, and manage natural resources that are of importance to them. The best practices are discussed in detail in Chapter 2. They were derived from discussions in the meetings held at Hill and Nellis AFBs and represent practices currently being implemented there as well as best practices that have been implemented at other DoD installations and on lands managed by other federal agencies. A more extensive discussion of the Nellis AFB program from the Native American perspective is presented in the *Afterword*.

Several appendices are provided and are intended to provide useful supplemental information for installations implementing similar programs or modifying already existing Native American programs. The final appendix, Appendix F, offers useful wording that can be used when revising ICRMPs and INRMPs to include goals and objectives that will help to identify and manage natural resources of importance to tribes. The report is accompanied by a DoD Legacy Program-format fact sheet and Powerpoint presentation to briefly summarize the methods used and the best practices. These documents along with this report will be posted to the DENIX website for downloading.

Although CRMs on most DoD installations generally acknowledge that natural resources important to tribes likely exist on their managed lands, few such resources have been identified on those lands. The reasons they have not been identified, much less evaluated, are several. Typical cultural resources inventory methodologies focus on identification of “things”—artifacts, trash dumps, buildings, foundations, and etc. Resources, such as high places, caves, or a river, that were revered but where few to no “things” were left may be missed by such inventory methodologies. Background research for these inventories usually consists of a review of previous historical or archaeological investigations and may not include research of ethnographic literature, historical maps, early traveler journals, or settler accounts that might contain valuable insights into natural resources important to native groups in the region. Moreover, installations where military activities result in considerable impact to the ground surface may consider other competing priorities more pressing, and this will contribute to the failure to identify natural resources important to tribes. Also, natural resources management practices, such as conducting Biological Assessments under the Endangered Species Act requirements, may be conducted with a view that tribes are not necessary parties to consult for information or insight for such studies.

Another contributor to the failure to establish inventories of these resources is the relative limited contact with the tribes themselves. Though most installations have some level of consultation and contact with tribes, in many cases tribes are not routinely consulted as part of background research for most inventory-level projects. In cases where affiliated tribes are recent arrivals in the region, this may be an acceptable loss as traditional knowledge may only relate to the past 150 years. However, in the case of many Great Basin tribes who claim great antiquity in their region, traditional knowledge may span a much longer time. This study recommends that Indian people be brought into the process of identifying, evaluating, and managing these resources.

Remedies for the inconsistent inventory of traditional resources of concern to tribal people exist, but there is no one solution. Tribes are diverse and have many unique traditions, and military installations are located in widely diverse environments with differing natural resources. Thus, this document advocates 14 best practices that can serve as umbrellas to the types of activities—from planning to management—that can aid an installation in the establishment of a program that will identify, evaluate, and manage these heritage assets. Though individually the best practices provide an action to be taken, as a group, they represent a process for consulting with Native Americans (not to replace current DoD training on the subject). The first eight best practices are concerned with broad issues that should be considered during project and program planning. These best practices are concerned with acquisition of background information and the development of internal and external policies that will establish the specifics of the installation’s consultation and Native American programs. The remaining six best practices relate to the identification, evaluation, and management of natural resources that are of concern to affiliated tribes. Below each best practice is excerpted from Chapter 2 and followed with the recommendations for implementing that best practice, also excerpted from Chapter 2.

*Best Practice 1: NRMs and CRMs develop and maintain a thorough understanding of pertinent laws, regulations, Executive Orders, and DoD policies to ensure that recommendations to installation commanders are legally defensible and meet DoD government-to-government consultation requirements. Implementing recommendations are:*

- Provide regulatory training opportunities for both the CRM and the NRM, including refresher training.
- Cross-train CRMs and NRMs to ensure they adequately understand the legal requirements of each other's programs. Such training can be formal classes or review of each program's five-year management plans.

*Best Practice 2: The CRM, NRM, and other installation personnel, as appropriate, are familiar with the treaty rights of the affiliated tribes to ensure that policies and programs take into account those rights. Implementing recommendations are:*

- Ensure regular review of the provisions of any treaties made with the tribes consulting with the installation. Treaties may contain provisions that affect land management responsibilities such as access to the installation's managed lands. The provisions may also affect how the installation consults with affiliated tribes.
- Seek the advice of the installation's legal staff to ensure interpretations of treaty provisions are accurate.
- As part of the government's responsibilities, ensure interactions between DoD installations and tribes take place on a government-to-government basis. Consultants, state officials, or other non-DoD project proponents can make arrangements for interactions with tribal officials or participate in such interactions, but the primary participants should be the DoD and the tribes.

*Best Practice 3: The CRM is familiar with the history and traditions of each consulting tribe. . Implementing recommendations are:*

- Gather background information about the tribes from early settler accounts, historical maps, and ethnographies such as those of the Bureau of American Ethnology series and the more recent *Handbook of North American Indians*
- Be aware of any biases that may exist in these documents.
- Review any decisions about the affiliated tribes that were made by the Indian Claims Commission.
- Consider discussing this background material with the tribes themselves for greater understanding of their history and traditions.

*Best Practice 4: The installation develops a Native American consultation process that meets legal requirements and its mission. Implementing recommendations are:*

- Avoid beginning from scratch. Resources on tribal consultation are available on the internet, and colleagues at installations who have already initiated efforts to identify natural resources important to tribes are willing to share their experiences.
- Make all parties aware that guidance for DoD Instruction 4710.2 defines consultation as "a dialog, with information and opinion respectfully exchanged in both directions."
- Before meeting with the tribes, define the level of consultation and shared-decision making that the installation and its command are willing to undertake. Inform the tribes of this level in the initial discussions to ensure that all parties are working in good faith with the same expectations.

- Include the installation's mission as a factor when planning the consultation process. How and when can resources be avoided will vary depending on the type of training undertaken at the installation. Beginning with the initial discussions, discuss the mission with tribes to ensure clarity.
- Consider issues likely to come up during discussions with tribal people when developing the installation-specific consultation process. Questions—such as how conflict will be resolved, how, where, and when access will be permitted, how tribal recommendations will be implemented (or not), and how committed the CRM, NRM, and senior and command-level leaders are to the consultation process and the identification of natural resources of concern to tribes—need to be addressed internally at the installation first.
- Plan the installation's consultation process, but finalize those issues that can be negotiated with the consultation partners. For example, where and when access to ranges or training areas can be provided may not be negotiable. Explain non-negotiable issues in initial meetings with tribes, but discuss with them issues that can be negotiated before reaching a final decision.

*Best Practice 5: The installation undertakes a study to identify tribes affiliated with its managed lands. Implementing recommendations are:*

- Plan to complete cultural affiliation studies early in efforts to identify natural resources of importance to tribes. Failure to include all tribes may, at best, require expenditure of additional funds and time to revisit decisions thought already put to rest. At worst, the failure can result in distrust of future actions.
- Ensure affiliation studies are thorough and use considerable background material. Tribal histories are often complicated by intentional migrations, forced removals, placement of the same tribe on multiple reservations, or other factors. Capture of the full list of tribes affiliated with managed lands requires careful study.
- Be aware that some tribes may claim an interest in only one or a few DoD-owned or impacted resources, but do not consider their tribe affiliated with the entire installation. Such claims will require consultation with that tribe under Section 106 and other legal requirements.
- Determine, in consultation with federally recognized tribes, whether to consult with nonfederally recognized groups separately or with the other consulting tribes.
- Prior to consulting, establish a clear understanding of each party's legal standing under law(s) applicable to the situation at hand. Some nonfederally recognized groups may have submitted petitions to the BIA to become federally recognized; others may be state-recognized tribes.

*Best Practice 6: The installation acknowledges shared issues with tribes when they are encountered during consultation about natural resources of importance to tribes. Implementing recommendations are:*

- Share unique perspectives on shared issues (such as how the military subdivides the land versus how the tribes subdivide the land) when different perspectives surface during consultation. By understanding the diverse viewpoints on the same issue, misunderstanding can be avoided or at least smoothed.
- Explain how the military uses the land including both impacts and the natural resources programs to maintain sustainability of training lands. Tribes may be aware of the impacts but may have limited knowledge of military programs to restore the land.

- Listen to how tribes used the land. Some tribal practices focused on sustaining selected resources. Determine if collaboration of new and old practices would be feasible or practical.
- Establish a policy on how the installation will handle the costs of consulting with tribes located at some distance from the installation. Explain the policy to the tribes in order that expectations are understood.

*Best Practice 7: The installation manages confidentiality, an issue of concern to tribes, by discussing it with the tribes during project or general management planning. Implementing recommendations are:*

- Consider confidentiality issues early in project and program planning to ensure all parties understand each other's position and how it will be handled.
- Be aware that tribes may be reluctant to share information due to confidentiality issues or because speaking about resources of concern may cause harm.
- Offer to have elders and others with knowledge contacted via intermediaries if there is concern about how the knowledge shared will be used.
- Employ professional anthropologists to elicit information about important natural resources if they can work in collaboration with the native people. In other cases, outside individuals whom tribal people know may be able to aid in the identification process.
- Offer tours of the installation to familiarize tribes with the current setting of ancestral lands and to discuss information from background literature searches. Tribes may lack familiarity with the locations of places important in their oral traditions if they have been removed long distances from those lands or if the DoD-managed lands have been inaccessible for considerable time.
- Consider alternative means to elicit information that the tribes consider confidential about natural resources of concern. What is successful at Hill AFB in Utah may or may not be successful at Fort Bragg in North Carolina or the Pensacola Naval Air Station in Florida. Discuss these alternatives with the tribes.
- Consider the amount of information needed when planning the project or program. When there is a heightened concern for confidentiality, it may be possible to elicit the briefest amount of information without details about why the resource on an installation is important to the tribe.

*Best Practice 8: The CRM and NRM use existing DoD contracting best practices to achieve the desired outcomes established during project or program planning. Implementing recommendations are:*

- Provide CRMs and NRMs opportunities to learn contracting best practices, including refresher courses.
- Consider contracting with tribes to seek their expertise about natural resources of concern.
- Develop well-defined goals/outcomes in consultation with tribes during project planning. These will ensure a scope of work that defines the deliverables so that bidders understand the work that is to be done.

*Best Practice 9: Because the identification of natural resources of concern to tribes takes time, the process to identify them is managed through the planning process. Implementing recommendations are:*

- Begin the identification process early. Awareness of potential concerns about resources on managed lands facilitates project planning.
- Recognize that the process will require time. Installation and tribal staff are limited and multitask and may not be able to complete the identification quickly. Requests for immediate review of scopes of work, visits to the field, and other activities may not be accepted. This may not indicate a lack of interest, but simply may reflect the limitations of time and staff.
- Whenever possible, carry out consultation about, and identification of, natural resources of concern to tribes during general management planning. If the installation conducts identification of such resources during environmental planning for proposed projects, the discussions with the tribes can be distracted by issues related to alternatives, impacts, and mitigation.

*Best Practice 10. Through consultation, the installation and the tribes establish the goals for the identification of resources to improve outcomes and budget adequate time and funding.*

*Implementing recommendations are:*

- Establish clear goals before developing the scope of work for a study. Absent an understanding of the goals, the scope will be vague and prone to misinterpretation by the people who complete the study.
- Develop the goals based on the legal requirements that govern the need for the study.
- Develop the goals in consultation with the tribes and Native Alaska villages. They may have intimate knowledge of the resources that could alter the goals. Since they are ultimately the ones to judge if a resource is/is not important to them, the best practice is to establish the goals with their input.
- Ensure methods are driven by the goals. Methods needed to develop a presence/absence list of plants would be quite different from the methods needed if the goal is locating stands of specific plants used for medicinal purposes.
- Be aware that not all tribes affiliated with an individual installation will necessarily want the same outcome. Tribes have unique histories and, like other communities, may or may not agree on all aspects of the goals for identifying natural resources.

*Best Practice 11: The evaluation of which natural resources are important to tribes is made by the tribes. Implementing recommendations are:*

- Ask the tribe(s) or Native Alaska villages to evaluate the resource. They are the ultimate authorities on what is important to them.
- Understand that as tribes evaluate the resources, the result may be a relatively large inventory of eligible properties, and boundaries around many of these properties may be difficult to draw.
- Seek to avoid conflating management and treatment issues with issues related to evaluations of significance. Attempts to dispute eligibility with the people who have already stated the resource is important to them usually end with a difficult long-term relationship and do not serve the interest of the installation or the tribe.

*Best Practice 12: The management of the natural resources of concern fits with the installation's mission. Implementing recommendations are:*

- Fully explain the mission of the installation to the affiliated tribes. The mission drives the type and intensity of impacts. Also explain non-DoD activities that occur on the installation. Unless the tribal people served in the military, they will need a full understanding of the activities in order to offer informed recommendations.
- Provide to the tribes details about the amount of Native American access that can be accommodated at the installation to prevent misunderstandings.
- Discuss with the tribes the installation's efforts to sustain and maintain its lands and assets. Tribal people may not be aware of the extent of programs and projects undertaken for these goals.

*Best Practice 13: Management of resources of concern to tribes is carried out with open dialogue and frank discussion during consultation. Implementing recommendations are:*

- Become familiar with tribal perspectives about different resources. Are sacred sites held in higher regard than economic resources? Tribes may have different management concerns for such resources.
- Allow tribes to offer their own unique treatment or restoration proposals. Such proposals are based on their traditional practices but are geared to the principle of sustainability just as are the INRMP practices and may benefit current installation practices.
- Be open and frank when avoidance of one or more resources is not an option. Tribes may regret these situations, but they have shown willingness to work with individual installations to identify appropriate treatment and mitigation options when avoidance is not feasible. This is particularly the case where the installation has consulted with them early in project planning.
- Discuss treatment options with the tribe(s) to find appropriate and creative solutions to impacts. There is no one treatment option or a list of "approved" treatment options.
- Bring the SHPO into discussions and meetings with tribes about treatment. They are key players in consultations under the NHPA and, like tribes, often have information about new or differing treatment options tried elsewhere.

*Best Practice 14: The CRM and NRM determine whether natural resources of concern can be prioritized to facilitate their management. Implementing recommendations are:*

- Discuss with the affiliated tribes whether cultural triage is an option. If so, the reports published by BARA (Stoffle 1998; Stoffle et al. 2001) provide guidance in how to apply it.
- Investigate the potential for adapting the site significance model (Cushman and Sebastian 2008) to guide the management of TCPs.
- Ask the tribes to consider alternative treatment options when avoidance, which is the first choice, is not feasible.

## **RECOMMENDATIONS TO DOD FOR FUTURE INITIATIVES**

During the course of this study, several recommended actions were identified that would provide DoD headquarters with useful assessments of individual and military-wide Native American programs as well as actions that are collaborative or that can be undertaken at individual bases.

The first came from the literature review, the remainder from discussions with Indian people and DoD staff. Each is detailed below.

- *Survey installations to determine if Native American access to sacred sites or natural resources of importance to tribes has expanded from what was found in 1991.* In a 1991 survey by Nickens and colleagues (1993), only 21 percent of the 78 installations contacted had any formal agreements or policies with specific native groups regarding access or consultation. Access to managed lands at installations was usually limited to the same access granted (or not) to any member of the public. Several things have changed since that study was completed. First, *DoD Interactions with Federally-recognized Tribes* was issued in 1998 and re-issued in 2006 (DoD 2006). This Instruction emphasizes the need for government-to-government consultation with tribes. It also instructs installations to consult on “proposed actions that may have the potential to significantly affect tribes, including, but not limited to: land-disturbing activities, construction, training, over-flights, management of properties of traditional religious and cultural importance, protection of sacred sites from vandalism and other damage, access to sacred sites, access to treaty-reserved resources, disposition of cultural items . . . and land use decisions” (DoD 2006:4). Each military department has incorporated this instruction into its own planning process (see Appendix B).

A resurvey would quantify the extent to which installations have moved forward in efforts to provide access to sacred sites. It is recommended that the survey also inquire if cultural affiliation studies have been undertaken. It should also inquire about efforts to identify sacred sites, TCPs, and historic properties of religious and cultural importance including those that are natural resources. The results of the survey could be used by DoD headquarters to assess areas where installations may be struggling to meet their responsibilities.

- *Host regional meetings of installations and tribes.* Although logistics for regional meetings can be daunting, regional meetings to discuss mutual interests in natural resources of concern actually result in cost-savings and a collaboration of ideas. The cost-savings occurs because many of the same tribes will be affiliated with the lands of most regional installations. Hence, Elgin AFB and the Pensacola Naval Air Station in Florida would have many if not all of the same affiliated tribes. Attendance at one meeting, rather than separate meetings at individual installations would eliminate overall DoD travel costs. Tribal concerns for natural resources can be disclosed to all installations in the region rather than one installation at a time. Unique, successful (or unsuccessful) treatment options can be shared among the group. A recent example of this type of regional event was a TCP workshop held at Luke AFB and jointly hosted by Luke AFB, the Arizona SHPO, and the ACHP (Carol Heathington, Luke AFB planner, personal communication 2009). Attended by many tribes and federal agencies, the meeting was so successful that a series of additional meetings are planned.
- *Learn from existing programs.* Installations that have already begun Native American programs, such as Hill AFB and Nellis AFB, are willing to share their ideas with CRMs and NRMs at other installations. This sharing can be accomplished in several ways. Hill hosts an annual tribal meeting in the fall, and Nellis holds one in November. Both would welcome guests who wish to learn about their respective programs. Tribes consulting with Hill, the CGTO, and the respective CRMs could be invited to discuss their programs at the DoD meetings at the annual conference of the Society of American Archaeology or other



appropriate venues. The Nellis AFB Indian program includes a videotaped, self documentation effort. This could be used to prepare a 20-minute overview of the Nellis program that can be distributed to other installations.

- *Include Native American natural resources projects in ICRMPs and INRMPs.* As the primary planning tools for the installation, these documents should incorporate projects that call for the identification, evaluation, and management of natural resources of concern to the tribes. Moreover, tribes should be involved in developing these plans. Within the ICRMPs and INRMPs, the legal driver(s) applicable would need to be clearly identified to justify funding. Appendix F provides wording that can be used in ICRMPs and INRMPs.
- *Prepare Ecological Overviews.* Appendix A presents a broad overview of the Great Basin. It was used as a device to better understand the context of potential natural resource concerns of the tribes consulting with Hill and Nellis AFBs. In addition to the environment and ecology of that region, efforts were made to describe the use of those lands by the tribes and how the resources are viewed as part of their creation stories or homelands. Similar studies would be beneficial in other regions. Installations in the same region, regardless of military branch, could join in a cooperative venture to complete such studies. The studies would provide background needed to anticipate some tribal concerns and to be better informed as consultation move forward.

## FINAL RECOMMENDATION

Management in the DoD is founded on sound principals. One is the need to follow through with any commitments and expectations. This principal is important for the Native American program. Commitments and expectations will be established by the installation in the early stages of the program. Those commitments and the amount of decision-making the installation is willing to share will vary from installation to installation, but once established, they need to be maintained to foster continued trust and respect. The immediate and long range costs for commitment of an installation seeking to initiate or increase management of resources important to tribes is, obviously, a consideration for the installation's leadership. Keith Myhrer (personal communication 2009), the CRM at Nellis, expressed the need to meet commitments in this way:

Failure is always possible. And there are many reasons why. Certainly, lack of commitment by the management would be one cause. But, another commitment the CRM has to have is to having Native Americans be committed to the program and involved. It is absolutely critical. Here, Indians have understood and believe in our mission. One of the first things I did was to show Native Americans what we do out here; let them see, learn, ask questions, understand. They have to believe that what we are doing is important. We train pilots to protect people. We have to all believe in that premise.

In some places, *this* particular program will not work. I admit that the time was ripe for the program when we initiated it. . . .Several people were key in getting it started and moving. For example, the Colonel said "*It's the right thing to do.*" That was instrumental. . . . I recommend that the CRM speak with upper management. Assess their understandings of benefits of the programs. Then begin.

As noted in Chapter 2, the two programs at Hill AFB and Nellis AFB are quite different, but they are both successful. Their success largely rests on the fact that both are managed to meet their respective installation's commitment to their Native American program.

The authors conclude this document regarding the need for establishing a program to identify, evaluate, and manage natural resources of importance to tribes using the words of Dorena Martineau, Gerald Kane, and Richard Arnold, three of the Native Americans with whom they met at Nellis AFB, and Keith Myhrer, the CRM at Nellis AFB:

I like the [Nellis] program. It gets us involved. For example, it gets us talking to the old people and hearing their stories before they are gone. This is really, really important and I appreciate all that the program does for our people. It's really important to get us involved, get us out there [in the field], sharing information with us. It's validating as well. We feel like they [the archaeologists] want the information, need the information that we provide. And, we take new information back to our people as well. So, this is just very, very, very important and we need to continue with it. For example, someone said to Mr. Arnold that they did not know the buffalo were important. How can they not know buffalo are important? I can't imagine anyone not knowing how important they are, not just to American Indians but to all people. I am glad that we came. . . . The Nellis program preserves tribal heritage: the information has to be out there for our young people.

Dorena Martineau, Paiute Indian Tribe of Utah, personal communication 2009

And:

As for the future, I cannot define it. As Richard [Arnold] said, the people then in the CGTO will meet and decide. The program has a life of its own. When we brought the elders out to the base, we found new ways of seeing. Perhaps we will bring the youth out to the sites next. And, that will give them a new way of seeing.

My father told me that our people traveled through a large area, sometimes a trip that would take 4–5 years. 'There's more than just this valley,' he would say. There are other valleys. We were good walkers. Lone Pine, Beatty, Tonapah, we would take a long loop in our travels. We knew where to camp. We know that our people traveled over the Sierras. We are now beginning to walk over the old trails to a meadow where our people used to camp. The people to the west are also traveling there. We talk about those old times together and learn about the old ways.

At Nellis, I have learned things from others and teach them to our people. I learn how archaeologists do things and take those back to our people.

Gerald Kane, Bishop Paiute Tribe, personal communication 2009

And:

One instance that came close to adverse effects was a burial site. We had tanks driving in an area that contained the site; normally we do not have tanks, but they happened to be on base. Amazingly, they did not impact the site. However, when we realized what was going on, we held an emergency meeting with the tribes and anticipated a conflict. We explained what had occurred. The tribal people felt they should hold ceremonies. They also felt the burial should be fenced, so we fenced it with a Native American monitor.

Keith Myhrer, personal communication 2009

And:

The re-burial site that Keith spoke of...needed a blessing. One tribe came forward and said we'll do the blessing....Since Nellis had an on-going program with the tribes, it was much easier for them to convene the tribes and have credibility in discussing the issue even though it was a sensitive one.

Richard Arnold, Pahrump Paiute Tribe, personal communication 2009

And:

At Nellis, we have built the program on: “This is the Air Force and the Air Force does not stop with the minimum.”

Keith Myhrer, personal communication 2009



## **AFTERWORD: THE NELLIS AFB INDIAN PROGRAM, A CASE STUDY FROM THE TRIBAL PERSPECTIVE**

*By Richard Arnold*

*Spokesperson, Consolidated Group of Tribes and Organizations, Nevada*

In 1996, Nellis AFB began a progressive partnership with 17 tribes culturally affiliated with the Nevada Test and Training Range (NTTR). This relationship became the impetus of the Nellis AFB American Indian Program that works collaboratively with Southern Paiute, Western Shoshone, Owens Valley Paiute, and Mojave people from Nevada, Utah, California, and Arizona. The approach was two-fold, allowing the Air Force, first and foremost, to make a good faith effort in being responsive to President Clinton's 1994 memorandum directing all federal agencies to operate within a government-to-government relationship with Indian tribes. Secondly, the Air Force was able to effectively address the interests of the tribes in becoming more actively involved in enhancing the management responsibilities of the resources found on the NTTR (Figure 9). Although innovative, these interactions were modeled after other programs in the region but were taken to a much higher standard.

The primary thrust of this effective, participatory program is founded on the belief that Indian people bring a unique understanding of the resources and have an abundance of ecological knowledge that is useful in managing and protecting natural resources. This unique undertaking has offered opportunities to facilitate tribal involvement while building meaningful relationships. A distinct outcome of the Nellis AFB American Indian Program has been the ability to successfully enhance Air Force initiatives while not interfering with its primary mission. To achieve this delicate balance, an understanding was reached between the tribes and the Air Force to become co-stewards of the land, thereby addressing a multitude of issues in a positive manner.

This co-management initiative became the backbone of one of the most progressive American Indian programs in the country and is recognized as a model for others to follow. Tribal representatives are committed to working together by speaking collectively to develop mechanisms that systematically share information about the mutual benefits of effectively managing the natural resources used by the military. Although not necessarily driven by this association, the Air Force continuously acknowledges the attributes of involving culturally affiliated tribes in their decisions.

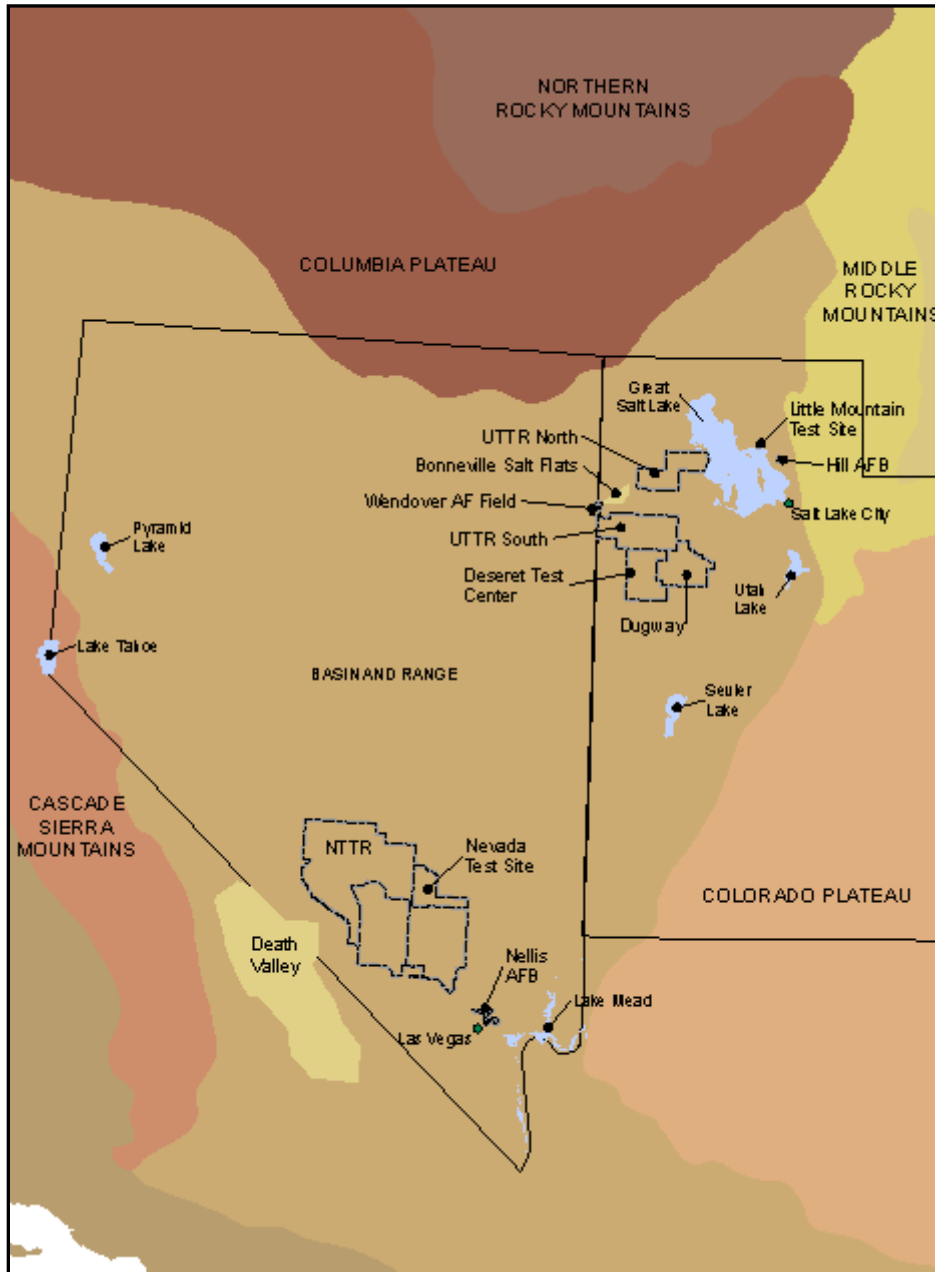


Figure 9. Nellis AFB and its relationship to Hill AFB and the physiography of the Great Basin.

Tribal representatives experience positive interactions and opportunities to provide useful information never before shared. This in turn allows the military to become better acquainted with cultural resources and traditional management strategies important to the tribes. Since tribes are culturally grounded, they rely on their unique knowledge and application of traditional practices and belief systems including but not limited to the collection of traditional-use plants, animals, other resources, ceremonial activities, and visitation to certain areas containing elements of cultural importance.

In many programs, tribal perspectives may be discounted because these views may conflict or are inconsistent with scientific perceptions or conclusions. To fully understand this epistemology, one must recognize that tribes have intimate knowledge about the land and its resources because it was continually used by Indian people for thousands of years and long before becoming withdrawn by the federal government for military purposes. Clearly, this information is both useful and has utility in understanding how and why certain resources were used and managed. From a western management perspective, certain things must be considered before engaging in operations. Similarly, Indian people believe that all things within their environment must be given equal consideration or else adverse consequences will result. When a meeting of the minds can occur, the approach is helpful in avoiding certain areas or resources, often by redirecting efforts or making minor adjustments. This in turn avoids potential conflicts and allows for appropriate mitigation to be considered and developed. Accordingly, tribal governments recognize their involvement must be proactive, and in some circumstances, resolution must be achieved. However, because of the uniqueness of this involvement, diverging viewpoints must be anticipated between the tribes and military. Accordingly, both the tribes and military have recognized that when open dialogue is encouraged, issues can be resolved, especially when discussions involve mutual respect and understanding.

Indian people continue to acknowledge the importance of providing insightful information about cultural beliefs. As such, knowledgeable tribal representatives have provided background about songscapes, viewsheds, storyscapes, biological management areas and strategies, and ethnobotanical information, to mention a few (Figure 10). This information allows for expanded archaeological interpretations and increased ethnographical data that are useful in understanding the natural resources most often overlooked. Without this unique understanding, government agencies inadvertently infringe upon sensitive resources that ultimately result in unanticipated delays and strained relations.

Conversely, tribal governments know that most interactions with other agencies are limited to archaeological projects and compliance surveys. As such, those programs tend to operate under the assumption that tribes are only interested in participating in projects that involve the identification of artifacts. Although this is an important component, the Nellis AFB program recognized early on that tribes should be involved at various levels throughout the installation so they can become more effective in their interactions.

To this end, the Nellis AFB Indian program continues to experience a progressive evolution by involving tribes in numerous undertakings. Through a long-standing commitment among different levels of the Air Force, annual meetings are held with tribal representatives to provide updates and overviews of the activities that occurred during the preceding year (Figure 11). This shared responsibility allows both the military and tribal representatives to become engaged by presenting information relating to activities of interest. Ultimately, this approach allows the program to become better equipped to manage its resources in a culturally compatible manner.

One notable example promoting expanded involvement of the tribes is the use of subcommittees consisting of tribally appointed individuals who are knowledgeable in their respective areas. Operating for a number of years is the Document Review Committee, charged with collectively reviewing and systematically commenting on various NEPA documents such as environmental impact assessments and environmental impact statements in addition to research designs and other pertinent documents. These reviews are collectively developed, finalized, and submitted to the Air Force for its consideration. When reviewing these documents, tribal representatives place





Figure 10. Site 42BO0676 on the Utah Test and Training Range, looking southwest. Caves tend to have special significance as places for Great Basin tribes to seek power (photograph courtesy of Hill AFB)



Figure 11. Blazing star or stickleaf; seeds of blazing star were found in a Great Basin archaeological site and reported at the Nellis AFB annual meeting (photo by Eric Hansen, GMI).



great emphasis on examining the elements that may be of concern to the culturally affiliated Indian tribes. Most often, comments may focus on actual and perceived impacts to cultural resources, socioeconomics, and environmental justice issues offered from a unique cultural perspective. Of course, it is not uncommon to evaluate issues that may cross over into other significant areas. This level of involvement has become an effective method for eliciting collective comments reflecting the perspectives of participating tribes related to proposed military projects and undertakings. To maintain continuity, documents and/or results are presented concurrently for review and evaluation by tribal governments and THPOs; they are welcomed by the SHPO and encouraged by the Air Force.

Tribal governments find this approach fosters communications with the tribes and allows them to become better acquainted with proposed projects and undertakings well before they are implemented. Even when projects are approved, tribes may not necessarily support an undertaking but ultimately will gain a better understanding of what is being proposed and the necessity for those activities. This methodology becomes essential to the success of the project and engages tribal governments proactively.

In return, Nellis AFB recognizes the value of this participation and supports the attendance of selected tribal representatives to various training symposia designed to enhance their skills and share information about the positive achievements of the Nellis AFB Indian program with other interested parties. These training opportunities have far-reaching benefits with application to respective tribal communities and provide continuity among projects in the region. Other activities, such as a traditional pinenut harvest, that were supported by the Air Force helped tribal representatives reacquaint themselves with the land they or their ancestors once used prior to its withdrawal by the federal government. This project introduced traditional harvesting techniques and discussions about reducing fuel loads and managing resources in a culturally responsive manner to help Nellis AFB become more effective and culturally compatible.

When involving tribal governments and allowing them to develop mutually compatible projects, the outcomes can become opportunities to share in the rewards together. The Nellis AFB program continues to challenge tribal governments to develop useful projects that not only have provisions to monitor site conditions but share information that can be used to drive the program in positive directions. Most recently, tribal representatives working on various Nellis AFB archaeology projects saw the need to assemble to discuss areas of mutual interests and hear the perspectives of project archaeologists. This unique twist allowed tribal representatives the opportunity to learn about the archaeological conclusions that they believe were based on incomplete cultural information. In response, tribal representatives arranged to have supplemental visits to selected areas as a means of providing additional information and clarification to ensure accurate and collective information was being presented. At the conclusion of this initiative, tribal representatives developed recommendations to provide guidance in future activities.

Now that 13 years of the Nellis AFB Indian program have passed, the culturally affiliated tribes continue to interact with the Air Force and experience positive relations. We know those unfamiliar with our initiatives may believe such undertakings are overwhelming and unnecessary. However, when rising to the challenge of enhancing interactions with tribal governments, the Nellis AFB program continues to set the standard for stimulating change and sets the example for others to follow!



## ACRONYMS

|         |  |
|---------|--|
| AASHTO  | American Association of State Highway and Transportation Officials |
| ACHP    | Advisory Council on Historic Preservation                          |
| AFB     | Air Force Base   |
| AIRFA   | American Indian Religious Freedom Act                              |
| ARPA    | Archaeological Resources Protection Act                            |
| BAE     | Bureau of American Ethnology                                       |
| BRAC    | Base Realignment and Closure                                       |
| CGTO    | Consolidate Group of Tribes and Organizations                      |
| CRM     | Cultural Resources Manager   |
| DoD     | Department of Defense  |
| DOE/NV  | Department of Energy, Nevada                                       |
| EO      | Executive Order  |
| FHWA    | Federal Highways Administration                                    |
| HPO     | Historic Preservation Officer                                      |
| ICC     | Indian Claims Commission   |
| ICRMP   | Integrated Cultural Resource Management Plan                       |
| ICS     | Index of Cultural Significance                                     |
| INRMP   | Integrated Natural Resource Management Plan                        |
| MCO     | Marine Corps Order   |
| MOA     | Memorandum of Agreement  |
| MOU     | Memorandum of Understanding  |
| NAGPRA  | Native American Graves Protection and Repatriation Act             |
| NEPA    | National Environmental Protection Act                              |
| NHPA    | National Historic Preservation Act                                 |
| NRM     | Natural Resource Manager   |
| NTTR    | Nevada Test and Training Range                                     |
| PA      | Programmatic Agreement   |
| PennDOT | Pennsylvania Department of Transportation                          |
| SHPO    | State Historic Preservation Office                                 |
| SOP     | Standard Operating Procedures                                      |
| TCP     | Traditional Cultural Property                                      |
| THPO    | Tribal Historic Preservation Office                                |
| USFWS   | United States Fish and Wildlife Service                            |
| UTTR    | Utah Test and Training Range                                       |



## REFERENCES CITED

Advisory Council on Historic Preservation (ACHP)

2008a *Consultation with Indian Tribes in the Section 106 Review Process: A Handbook*. ACHP, Washington, D.C. Accessed at <http://www.achp.gov/regs-tribes2008.pdf>

2008b *Section 106 Consultation between Federal Agencies and Indian Tribes Regarding Federal Permits, Licenses, and Assistance, Questions and Answers*. ACHP, Washington, D. C. Accessed at <http://www.achp.gov/nap.html>

Anthony, David

1990 Migration in Archaeology: The Baby and the Bathwater. *American Anthropologist* 92:895–914.

AASHTO Governing Documents

2009 AASHTO Governing Documents: Articles of Incorporation, AASHTO Bylaws, Board of Directors Operating Policy, Organizational Charts, Amended May 18, 2009, by the AASHTO Board of Directors, Bedford Springs, Pennsylvania. Available at [http://www.transportation.org/sites/aashto/docs/GovDocs\\_May\\_2009\\_color-olive.pdf](http://www.transportation.org/sites/aashto/docs/GovDocs_May_2009_color-olive.pdf)

Banks, Kimball M., Myra J. Giesen, and Nancy Pearson

2000 Traditional Cultural Properties vs. Traditional Cultural Resource Management. *CRM* 1:33–36.

Brandt, Elizabeth A.

1997 *Salinas Pueblo Missions National Monument Cultural Affiliation Study*. National Park Service, Applied Ethnography Program, Southwest Systems Support Office, Santa Fe.

Bumgardner, Walter H.

1993 *Final Report: Education, Public Access, and Outdoor Recreation*. Legacy Resources Management Program, Project EL 93-3. School of Human Performance and Recreation, University of Southern Mississippi, Hattiesburg, Mississippi.

Bureau of American Ethnology (BAE)

- 1881 *First Annual Report of the Bureau of Ethnology, 1879–80*. Bureau of American Ethnology.
- 2000a *Publications of the Bureau of American Ethnology*. Native American Nations, Your Source for Indian Research. Available at [http://www.nanations.com/bureau\\_ethnology.htm](http://www.nanations.com/bureau_ethnology.htm)
- 2000b *Bulletins of the Bureau of American Ethnology*. Native American Nations, Your Source for Indian Research. Bulletin Series 1998). Available at <http://www.sil.si.edu/DigitalCollections/BAE/baehome.htm>

Bureau of Indian Affairs

- 2010 Who We Are. Bureau of Indian Affairs website. <http://www.bia.gov/WhoWeAre/index.htm>. Accessed June 10, 2010.

Burney, Michael S.

- 2009 Disaster on the Missouri: The Yankton Sioux and Their Beloved White Swan. In *Avoiding Archaeological Disasters, A Risk Management Approach*, by D. C. Stapp and J. G. Longenecker, pp. 96–103. Left Coast Press, Walnut Creek, California.

Campbell, Thomas N.

- 1988 *The Indians of Southern Texas and Northeastern Mexico, Selected Writings of Thomas Nolan Campbell*. Texas Archeological Research Laboratory, The University of Texas at Austin.

Center for Environmental Excellence by AASHTO

- 2009 *Tribal Consultation, Overview*. Available at [http://environment.transportation.org/environmental\\_issues/tribal\\_consult/](http://environment.transportation.org/environmental_issues/tribal_consult/),

Clemmer, Richard O., and Daniel D. Myers

- 1999 Introduction. In *Julian Steward and the Great Basin: The Making of an Anthropologist*, edited by R. O. Clemmer, L. D. Myers, and M. E. Rudden, pp. ix–xxii. The University of Utah Press, Salt Lake City.

Clemmer, Richard O., L. Daniel Myers, and Mary Elizabeth Rudden (editors)

- 1999 *Julian Steward and the Great Basin: The Making of an Anthropologist*. The University of Utah Press, Salt Lake City.

Cushman, David W., and Lynne Sebastian

- 2008 *Integrating Archaeological Models: Management and Compliance on Military Installations*. Legacy Program Report 06-167. SRI Foundation, Los Angeles.

D'Azevedo, Warren L.

- 1986 Introduction. In *Great Basin*, edited by W. L. D'Azevedo, pp. 1–14. Handbook of North American Indians, vol. 11, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Deloria, Vine, Jr., and Richard W. Stoffle

- 1998 *Native American Sacred Sites and the Department of Defense*. Bureau of Applied Research in Anthropology, University of Arizona, Tucson. Report prepared for the Department of Defense, Legacy Management Service.

Downer, Alan, and Alexandra Roberts

- 1993 Traditional Cultural Properties, Cultural Resources Management, and Environmental Planning. In *Traditional Cultural Properties: What You Do and How We Think* edited by P. Parker, CRM special issue Vol. 16, pp 12–15.

Department of Defense (DoD)

- 2006 Department of Defense Instruction No. 4710.02, 2006: *DoD Interactions with Federally-Recognized Tribes*.
- 2008 Department of Defense Base Structure Report (BSR) FY 2008 Baseline. <http://www.acq.osd.mil/ie/download/bsr/BSR2008Baseline.pdf>.

Everett, Dianna

- 1990 *The Texas Cherokees, A People between Two Fires, 1819–1840*. The University of Oklahoma Press, Norman.

*Federal Register*

- 1998 Archaeology and Historic Preservation; Secretary of Interior's Standards and Guidelines. *Federal Register* 48 (190):44723–44728.
- 2009 Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs. *Federal Register* 74(153):40218–40223.

Federal Highway Administration (FHWA)

- 2004 *FHWA Pennsylvania Division Intertribal 2003, Lessons Learned in Pennsylvania*. Accessed at <ftp://ftp.dot.state.pa.us/public/bureaus/BEQ/Summit.pdf>.

Ford, Richard I.

- 1990 Foreword. In *Native American Cultural Resource Studies at Yucca Mountain, Nevada*, by R.W. Stoffle, D. B. Halmo, J. E. Olmsted, and M. J. Evans, pp. xxi–xxiv. Institute for Social Research, The University of Michigan, Ann Arbor.

Fort Bliss

- 2008 *Integrated Cultural Resource Management Plan 2008–2012*. Fort Bliss, Texas.

Gelo, Daniel Joseph

- 1986 Comanche Belief and Ritual. Unpublished Ph.D. dissertation, Department of Anthropology, Rutgers University, New Brunswick, New Jersey.
- 1993 *Topographic References in Comanche Narratives*. Review draft in senior author's possession, University of Texas at San Antonio.

Gmelch, George J.

- 1980 Return Migration. *Annual Review of Anthropology* 9:135–159.

- Grant, Marcus P., and Sherri Wenzlau (with Richard Arnold, Michael McFaul, Eugene J. Romanski, Adam Berg, and Tyler Cremeens)  
2008 *Assessing the Relationship Between Vegetation Zones and Archaeology on the Nevada Test And Training Range*. Miscellaneous Reports of Investigations Number 419. Geo-Marine, Inc., Plano, Texas.
- Grossman, Zoltan  
1992 Indian Treaty Rights. In *When Hate Groups Come to Town: A Handbook of Effective Community Responses*, edited by W. Randall and L. Webster, pp. 122–140. Center for Democratic Renewal, Atlanta.
- Henderson, T.  
2008 *The Nellis Air Force Base Native American Dry Lakes Study*. Nevada Test and Training Range, Nellis Air Force Base, Las Vegas.
- Herr, Sarah., Chris North, and J. Scott Wood  
2009 Scouting for Apache Archaeology in the Sub-Mogollon Rim Region. *Kiva* 75(1):35–62.
- Hill Air Force Base (AFB)  
n.d. U. S. Air Force Fact Sheet, 75<sup>th</sup> CEG Cultural Resources. Accessed at [http://www.hill.af.mil/library/factsheets/factsheet\\_print.asp?fsID=6109&page=1](http://www.hill.af.mil/library/factsheets/factsheet_print.asp?fsID=6109&page=1).
- Hokanson, J., and K. Kempton  
2008 *After the Smoke Clears: A Cross-Cultural Approach to Assessing the Effect of Wild Fires on Traditional Cultural Properties*. Pamphlet. Legacy Project 07-370. Department of Defense, Washington, D.C.
- Hutt, Sherry  
2006 Perspectives on Traditional Cultural Properties. Paper presented at the Department of Defense Cultural Resources Workshop, Seattle.
- Hutt, Sherry, and Jaime Lavalley  
2005 *Tribal Consultation Best Practices in Historic Preservation*. National Conference of Tribal Historic Preservation Officers, Washington, D.C.
- Indian Claims Commission Decisions  
n.d. Indian Claims Commission Decisions, Oklahoma State University Electronic Publishing Center, available at <http://digital.library.okstate.edu/icc/>
- Johnson, Gregory A.  
1989 Dynamics of Southwestern Prehistory Far Outside—Looking In. In *Dynamics of Southwest Prehistory*, edited by L. S. Cordell and G. J. Gumerman, pp. 371-389. Smithsonian Institution Press, Washington, D.C.
- Johnson, Allen M. Jr.  
2009 Jackson Barracks Rebound after Hurricanes Katrina, Rita. *2theadocate.com*. Accessed at <http://www.2theadocate.com/news/38788272.html?index=1&c=y>.



Kari, James M.

- 2006 *Traditional Cultural Properties in the Vicinity of Sparrevohn Long Range Radar Site*. Cultural Heritage Studies, Environment and Natural Resources Institute, University of Alaska, Anchorage.

Karson, J.

- 2009 *Traditional Use Study for the Mason Dam Hydroelectric Project, Baker County, Oregon*. Confederated Tribes of the Umatilla Indian Reservation, Pendleton.

Kenmotsu, Nancy A., and Mariah F. Wade

- 2001 *Amistad National Recreation Area, Del Rio, Texas, American Indian Tribal Affiliation Study, Phase I: Ethnohistoric Literature Review*. Archeological Studies Program, Report No. 34, Texas Department of Transportation, Austin and National Park Service, Del Rio, Texas.

Kenmotsu, Nancy A., Timothy K. Perttula, Patricia Mercado-Allinger, James E. Bruseth, Sergio Iruegas, and Curtis Tunnell

- 1994 *Archeological and Documentary Research at Medicine Mounds Ranch, Hardeman County, Texas*. Cultural Resource Management Report 4. Department of Antiquities Protection, Texas Historical Commission, Austin.

Kenmotsu, Nancy A., Timothy K. Perttula, Patricia Mercado-Allinger, Thomas R. Hester, James E. Bruseth, Sergio Iruegas, and Curtis Tunnell

- 1995 *Medicine Mounds Ranch, a Possible Comanche Traditional Site in the Rolling Plains, Texas*. *Plains Anthropologist* 40:237–250.

King, Thomas F.

- 2003 *Places that Count, Traditional Cultural Properties in Cultural Resource Management*. Altamira Press, New York.

Kirk, Ruth, and Richard D. Daugherty

- 2007 *Archaeology in Washington*. University of Washington Press, Seattle.

Legacy Resource Management Program (DoD Legacy Program)

- 2007a *United States Department of Defense 2007 Desk Guide to Military Installations and Federally Recognized Tribes Located in the South and Eastern United States. Section I: Military Installations*. Department of Defense, Legacy Resource Management Program, Washington, D.C.

- 2007b *United States Department of Defense 2007 Desk Guide to Military Installations and Federally Recognized Tribes Located in the South and Eastern United States. Section II: Federally Recognized Tribes*. Department of Defense, Legacy Resource Management Program, Washington, D.C.

Levine, Frances, and Thomas Merlan

- 1997 *Bandelier National Monument Ethnographic Literature Search and Consultation*. Bandelier National Monument, New Mexico.

List of Petitioners by State

- 2008 List of Petitioners by State. Website. Available at <http://www.bia.gov/idc/groups/public/documents/text/idc-001215.pdf>.

Matson, R. G., and Martin P. R. Magne

- 2007 *Athapaskan Migrations, The Archaeology of Eagle Lake, British Columbia*. University of Arizona Press, Tucson.

McCall, Tad

- 1998 *DoD Implements New American Indian, Alaska Native Policy*. American Forces Press Service.

Minthorn, P. E.

- 1998 It Is Good That You Are Listening: The Dynamics of Native American Cultural Resource Management. *Practicing Anthropology* 20(3):31–32.

Mulroy, Kevin

- 1993 *Freedom on the Border: The Seminole Maroons in Florida, the Indian Territory, Coahuila, and Texas*. Texas Tech University Press, Lubbock.

Nickens, Paul R., Michael R. Waring, and Walter H. Bumgardner

- 1993 *Summary Report: Legacy Education, Public Awareness, and Recreation Task Area*. Technical Report EL-93-16. U.S. Army Engineers Experiment Station, Vicksburg, Mississippi.

Obermeyer, Brice

- 2009 Delaware Country: Landscape, Identity, and Politics in an Oklahoma Indian Tribe. *Plains Anthropologist* 54(211):181–200.

Parker, Patricia L. (editor)

- 1993 *Traditional Cultural Properties, What You Do and How We Think*. CRM special issue, Vol. 16, pp. 1–5.

Parker, Patricia L., and Thomas F. King

- 1990 *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. National Register Bulletin 38. National Park Service, Washington, D. C.

Pevar, Stephen L.

- 1992 *The Rights of Indians and Tribes: the Basic ACLU Guide to Indian and Tribal Rights*. Southern Illinois University Press, Carbondale, Second edition.

Protect Kaho'olawe 'Ohana

- 2001 *Kaho'olawe, Access Plan and Procedures*. Draft plan prepared for the state of Hawaii. Available at <http://www.kahoolawe.org/AccessPlan1.0.pdf>.

- 2002 Kano'olawe Island Reserve. Available at <http://www.kahoolawe.org/ohana.html>.

Records of the Indian Claims Commission

- 1995 National Archives, Guide to Federal Records. Available at <http://www.archives.gov/research/guide-fed-records/groups/279.html#279.1>

Roemer, Erwin

- 2008 Best Practices Tool for Tribal Interests and Natural/Traditional Interests, Scope of Work, Submitted to Legacy Project Office, Department of Defense. Wright Patterson Air Force Base, Air Force HQ.

Sebastian, Lynne

- 1993 Protecting Traditional Cultural Properties through the Section 106 Process. In *Traditional Cultural Properties, What You Do and How We Think*, edited by P. Parker. CRM special issue, Vol. 16, pp, 22–26.

Smithson National Museum of Natural History

- 2009 Handbook of the North American Indians, William C. Sturtevant, General Editor. Available at <http://anthropology.si.edu/handbook.htm>

Stapp, Darby C., and Michael S. Burney

- 2002 *Tribal Cultural Resource Management, The Full Circle to Stewardship*. Altamira Press, New York.

Stapp, Darby C., and Julia G. Longenecker

- 2009 *Avoiding Archaeological Disasters: A Risk Management Approach*. Left Coast Press, Walnut Creek, California.

Stoffle, Richard W.

- 1998 A Consultation Model. In *Native American Sacred Sites and the Department of Defense*, edited by V. Deloria and R. W. Stoffle, pp. 72- 90. Bureau of Applied Research in Anthropology, University of Arizona.
- 2001 Anthropology and Consultation: A Model for the Nevada Test Site. In *American Indians and the Nevada Test Site: A Model of Research and Consultation*, edited by R. W. Stoffle, M. N. Zedeño, and D. B. Halmo, pp.21-36. U. S. Government Printing Office, Washington D.C.

Stoffle, Richard W., David B. Halmo, John E. Olmsted, Michael J. Evans

- 1990 *Native American Cultural Resource Studies at Yucca Mountain, Nevada*. Institute for Social Research, The University of Michigan, Ann Arbor.

Stoffle, Richard W., Maria Zedeño, Jaime Eyrich, Patrick Barabe

- 2000 *The Wellington Canyon Ethnographic Study at Pintwater Range, Nellis Air Force Base, Nevada*. Report prepared for U. S. Air Force and SAIC. Bureau of Applied Research in Anthropology, University of Arizona, Tuscon.

Stoffle, Richard W., Maria Zedeño, and David B. Halmo (editors)

- 2001 *American Indians and the Nevada Test Site: A Model of Research and Consultation*. U.S. Government Printing Office, Washington D.C.

Stoffle, Richard W., Fletcher P. Chmara-Huff, Kathleen A. Van Vlack, and Rebecca S. Toupel  
2004 *Puha Flows from It: The Cultural Landscape Study of the Spring Mountains*.  
Bureau of Applied Research in Anthropology, University of Arizona, Tuscon.

Standard.net

2007 Hill Recovery Team Cleans 30-year Old Crash Site. 75<sup>th</sup> Air Base Wing public  
affairs, Hill AFB. Access at <http://www.standard.net/hilltop/117096/>.

Sucec, Rosemary

2006 *Fulfilling Destinies, Sustaining Lives: the Landscape of Waterpocket Fold: an  
Ethnographic Assessment of American Indian Histories and Resource Uses within  
Capitol Reef National Park, Utah, and on Lands Surrounding It*. National Park  
Service, Denver.

2007 *Still Ancestral Homeland: An Ethnographic Overview and Assessment of American  
Indian Histories and Resource Uses Associated with Hill Air Force Base, Utah*. Hill  
Air Force Base, Department of Defense, Utah.

Sturtevant, William C., and Warren L. d'Azevedo

1986 Preface. In *Great Basin*, edited by W. L. D'Azevedo, pp. xiii–xvi. Handbook of  
North American Indians, vol. 11, W. C. Sturtevant, general editor, Smithsonian  
Institution, Washington, D.C.

Turner, Nancy J.

1988 The Importance of a Rose: Evaluating the Cultural Significance of Plants in  
Thompson and Lillooet Interior Salish. *American Anthropologist* 90:272–290.

U.S. Air Force

2007a Nellis Air Force Base Integrated Cultural Resources Management Plan. Air Force  
Combat Command.

2007b Nellis Air Force Base Integrated Natural Resources Management Plan. Air Force  
Combat Command.

U.S. Army

2007 GTA PEIS: Final Programmatic Environmental Impact Statement for Army Growth  
and Force Structure Realignment. Fort Bliss, Texas. October.

U.S. Fish and Wildlife Service

1994 The Native American Policy of the U.S. Fish and Wildlife Service. U.S. Fish and  
Wildlife Service, available at [http://www.fws.gov/nativeamerican/graphics/  
Native\\_Amer\\_Policy.pdf](http://www.fws.gov/nativeamerican/graphics/Native_Amer_Policy.pdf) ).

2009 Fact Sheet: Fish and Wildlife Conservation Offices, Tribal Assistance. U.S. Fish  
and Wildlife Service, available at [http://www.fws.gov/fisheries/fwco/pdfs/  
factsheets/TribalAssistance.pdf](http://www.fws.gov/fisheries/fwco/pdfs/factsheets/TribalAssistance.pdf).

U.S. Marine Corps

- 2006 *Integrated Natural Resources Management Plan (2007–2011), Marine Corps Base Camp Lejeune, Onslow County, North Carolina.* Marine Corps, Camp Lejeune.

Walker, Jr., Deward E.

- 1999 A Revisionist View of Julian Steward and the Great Basin Paradigm from the North. In *Julian Steward and the Great Basin: The Making of an Anthropologist*, edited by R. O. Clemmer, L. D. Myers, and M. E. Rudden, pp. 60–73. The University of Utah Press, Salt Lake City.

Williams, R.

- 1998 DoD Implements New American Indian, Alaska Native Policy. *American Forces Press Service.* Available at <http://www.defenselink.mil/news/newsarticle.aspx?id=42263>.

*The Yakima Treaty*

- 1855 *The Yakima Treaty, June 9, 1855. Treaty between the United States and the Yakama Nation of Indians. Concluded at Camp Stevens, Walla- Walla Valley, June 9, 1855. Ratified by the Senate, March 8, 1859. Proclaimed by the President of the United States, April 18, 1859.* Available at <http://www.ccrh.org/comm/moses/primary/yaktreaty.html>.

Zedeño, Maria N.

- 1994 *Sourcing Prehistoric Ceramics at Chodistaas Pueblo, Arizona: The Circulation of People and Pots in the Grasshopper Region.* Anthropological Papers of The University of Arizona, Number 58. The University of Arizona Press, Tucson.

Zedeño, Maria N., and Kathryn Hamm

- 2001 Ethnobiology on Pahute and Rainier Mesas. In *American Indians and the Nevada Test Site: A Model of Research and Consultation*, edited by R. W. Stoffle, M. N. Zedeño, and D. B. Halmo, pp. 98–121. U.S. Government Printing Office, Washington D.C.



**APPENDIX A**

**OVERVIEW OF THE GREAT BASIN'S NATURAL  
ENVIRONMENT AND INDIGENOUS USES OF THAT  
ENVIRONMENT**

*by*  
Nancy A. Kenmotsu  
Eric Hansen  
*and*  
Sherri Wenzlau





## TABLE OF CONTENTS

|  |      |
|--|------|
| 1. INTRODUCTION .....                            | A-1  |
| Background and Purpose .....                     | A-1  |
| 2. THE GREAT BASIN .....                         | A-3  |
| 3. AMERICAN INDIAN USES OF THE GREAT BASIN ..... | A-17 |
| Baskets: Tools Made From Natural Resources ..... | A-19 |
| Food Preferences.....                            | A-20 |
| Topographic Features.....                        | A-26 |
| 4. SUMMARY.....                                  | A-29 |
| REFERENCES CITED.....                            | A-31 |



## LIST OF FIGURES

|       |  |      |
|-------|--|------|
| A-1.  | Physiographic map of the Great Basin, showing Hill AFB, Nellis AFB, and their managed lands.....   | A-4  |
| A-2.  | Graphic depiction of the general topographic variation from the mountains to the valley floors within the Great Basin.....                     | A-5  |
| A-3.  | Map of the biotic communities on the northern part of the Utah Test and Training Range, Hill AFB.....  | A-7  |
| A-4.  | Sparse vegetation, looking at Upper Pahute Mesa in the southern Great Basin.....   | A-8  |
| A-5.  | Map of the biotic communities on the Nevada Test and Training Range, Nellis AFB.....   | A-9  |
| A-6.  | Spring at Mosquito Willie's on the UTTR with mountains in background.....  | A-10 |
| A-7.  | View of the West Fork of Thirsty Canyon with Black Mountain in the distance.....   | A-10 |
| A-8.  | The location of Hill AFB and the UTTR within the northern Great Basin and in relation to Bonneville Flats and the Great Salt Lake.....         | A-12 |
| A-9.  | The location of Nellis AFB and the NTTR within the southern Great Basin.....   | A-13 |
| A-10. | Volcanic outcrops near Black Mountain in the NTTR.....   | A-14 |
| A-11. | Physiographic map of the Great Basin overlain by general cultural divisions, in relation to Hill AFB, Nellis AFB, and their managed lands..... | A-18 |
| A-12. | Woman ,“The Basketmaker,” Making Basket Near Brush Dwelling.....   | A-20 |
| A-13. | Blazing Star, Stickleleaf ( <i>Mentzelia albicaulis</i> ).....   | A-24 |



## LIST OF TABLES

|  |      |
|--|------|
| A-1. Tribes Affiliated with Hill AFB and Nellis AFB.....   | A-2  |
| A-2. Materials Used in Ethnographic Basketry in the Great Basin.....                                   | A-21 |
| A-3. Commonly Observed Edible Plant Species in the XX Survey on the NTTR,<br>by Micro-Environment..... | A-23 |



# **CHAPTER 1**

## **INTRODUCTION**

### **BACKGROUND AND PURPOSE**

This appendix provides an overview of the environment and landscapes of the Great Basin and some of the types of associations and uses of that environment for the tribes who consider these their ancestral homelands. It is intended to illustrate how Indian people used and continue to use that environment to sustain themselves physically and spiritually, and why, therefore, it is important that Department of Defense (DoD) installations undertake efforts to identify natural resources on the lands that they manage that are of traditional or religious significance to American Indian tribes affiliated with those lands. Natural resources on DoD military lands include natural features, landscapes, water systems, minerals, and plant and animal communities.

Land managers at Hill Air Force Base (AFB) and Nellis AFB—interviewed by Geo-Marine, Inc., (GMI) during the present study—understand the importance of working with American Indian tribes to identify resources of concern to the tribes and to find ways to address those concerns. We drew from some of their experiences in this overview. Nellis AFB, in particular, and to a lesser extent Hill AFB, are now conducting studies to identify, evaluate, and manage natural resources of concern to the tribes (Table A-1) affiliated with their respective lands. They recognize that if natural resources of concern have not been identified in archaeological and historical surveys—particularly when artifacts, other archaeological evidence, or structures are not present or the resource has not been otherwise humanly modified—management decisions may adversely impact natural resources of tribal and traditional significance.

Hill and Nellis AFBs were closely studied for several reasons. They are both situated in the arid West, where many of the nation's largest DoD installations are situated, and they both share a presence in the Great Basin physiographic region. They also share a commitment to effective consultation and communication with tribes, as well as an interest in the identification of natural resources of traditional, customary, and religious significance to the tribes. Nellis AFB has become a leader in working with tribes. Not only has it taken steps to identify natural resources of traditional significance to tribes but it has also begun to evaluate, with the tribes, natural resources for their eligibility for listing in the National Register and is looking carefully at how to manage those resources. Hill AFB has also initiated consultation with tribes to identify resources of concern on its lands.

Table A-1  
Tribes Affiliated with Hill AFB and Nellis AFB

| Tribes Affiliated with Hill AFB   | Tribes Affiliated with Nellis AFB     |
|---|---------------------------------------|
| Northern Arapaho Tribe  | <i>Owens Valley Paiute</i>            |
| Blackfeet Tribe   | Benton Paiute Indian Tribe            |
| Crow Tribe of Montana   | Big Pine Paiute Tribe of Owens Valley |
| Eastern Shoshone  | Bishop Paiute Indian Tribe            |
| Confederated Tribes of the Goshute Indian Reservation   | Fort Independence Indian Tribe        |
| Hopi Tribe  | Lone Pine Paiute-Shoshone Tribe       |
| Navajo Nation   | <i>Western Shoshone</i>               |
| Northwestern Band of Shoshone Nation  | Duckwater Shoshone Tribe              |
| Paiute Indian Tribe of Utah   | Timbisha Shoshone Tribe               |
| Pueblo of Zuni  | Yomba Shoshone Tribe                  |
| San Juan Southern Paiute Tribe  | Ely Shoshone Tribe                    |
| Shoshone-Bannock Tribes of the Fort Hall Reservation  | <i>Southern Paiute</i>                |
| Shoshone-Paiute Tribes of the Duck Valley Reservation   | Chemehuevi Indian Tribe               |
| Skull Valley Band of Goshute Indians  | Kaibab Band of Southern Paiutes       |
| Te-Moak Tribe of Western Shoshone   | Las Vegas Paiute Band                 |
| Ute Indian Tribe  | Moapa Band of Paiutes                 |
| Ute Mountain Ute Tribe  | Pahrump Paiute Tribe                  |
| White Mesa Ute Council  | Paiute Indian Tribes of Utah          |
| Confederated Salish & Kootenai Tribes of the Flathead<br>Reservation—deferred to local tribes | Colorado River Indian Tribes          |
|   | <i>Mojave</i>                         |
|   | Fort Mojave Tribe                     |

We began our study with development of this generalized ecological overview for the region where the installation(s) is located, in this case the Great Basin, which is the predominant geographical region where Hill and Nellis AFBs are situated. The generalized overview is based on:

- *information from anthropology, geography, ecology, natural sciences, and other disciplines*
- *ethnographic and archival information providing insights into the traditional value of selected natural resources to Tribes*

The overview is not exhaustive and we note that the people who have the greatest understanding of indigenous uses of the land—the Indian tribes—did not have input into it. Its current form is rooted in literature.



## **CHAPTER 2**

### **THE GREAT BASIN**

When Nevin Fenneman (1931:320–330) mapped and divided the landmass of the western United States into various physiographic provinces, he subdivided the provinces into sections based on certain internal similarities that they contained. Within the large Basin and Range province in the western United States, one subdivision he established is the Great Basin section or region as it has come to be known. The Great Basin is an enormous area of some 200,000 square miles that stretches from the western edge of the Rocky Mountains and the Colorado Plateau to the eastern edges of the Pacific Mountain System (Figure A-1). On the north, it is bordered by the Columbia Plateau, and on the south by the Mojave Desert. Recently, it has been argued that the Mojave Desert is not a discrete biotic or geologic unit but a transition zone between the Great Basin to the north and the Sonoran Desert to the south (McMahon 1997:47). Because some portions of Nellis AFB are within the Mojave, the discussion below includes some data on that environment.

The Great Basin, the largest North American desert, is a series of valley floors with internally drained basins between generally north–south-trending mountain ranges. The mountain ranges achieve heights of up to 12,000 feet (ft) above mean sea level (amsl) with dramatic descents to relatively flat, basin floors that vary from 4,100 ft amsl in elevation at Diamond Swamp in the northwestern extreme of the basin, to 4,200 ft amsl at the Great Salt Lake, to below sea level in Death Valley in the southwestern part of the basin. In all, there are more than 150 more-or-less closed basins within the Great Basin (Harper 1986:51). Generally, the mountains in the northwestern portion of the region are higher with broader valleys, but “rare indeed is the spot [anywhere in the Great Basin] from which one cannot see mountains towering above the flatlands” (Harper 1986:51). The basin contains all of the state of Nevada (except for its southern and southwestern extremity), the western half of Utah, and portions of Oregon, California, and Idaho. In the northern portions of the basin, large playa systems exist that are the remnants of two expansive, prehistoric, Pleistocene or Ice Age lakes. Lake Bonneville at one time covered nearly all of northwestern Utah and is today represented by several smaller, shallow lakes, particularly the Great Salt Lake, Utah Lake, and Sevier Lake. Some of the remaining portions of Lake Bonneville are known today as Bonneville Flats. Lake Lahontan, formerly covering large portions of western Nevada, is today represented by much smaller lakes such as Pyramid Lake and Humboldt Lake as well as a number of intermontane playas, one known as the Black Rock Desert between the Calico and Jackson mountains.

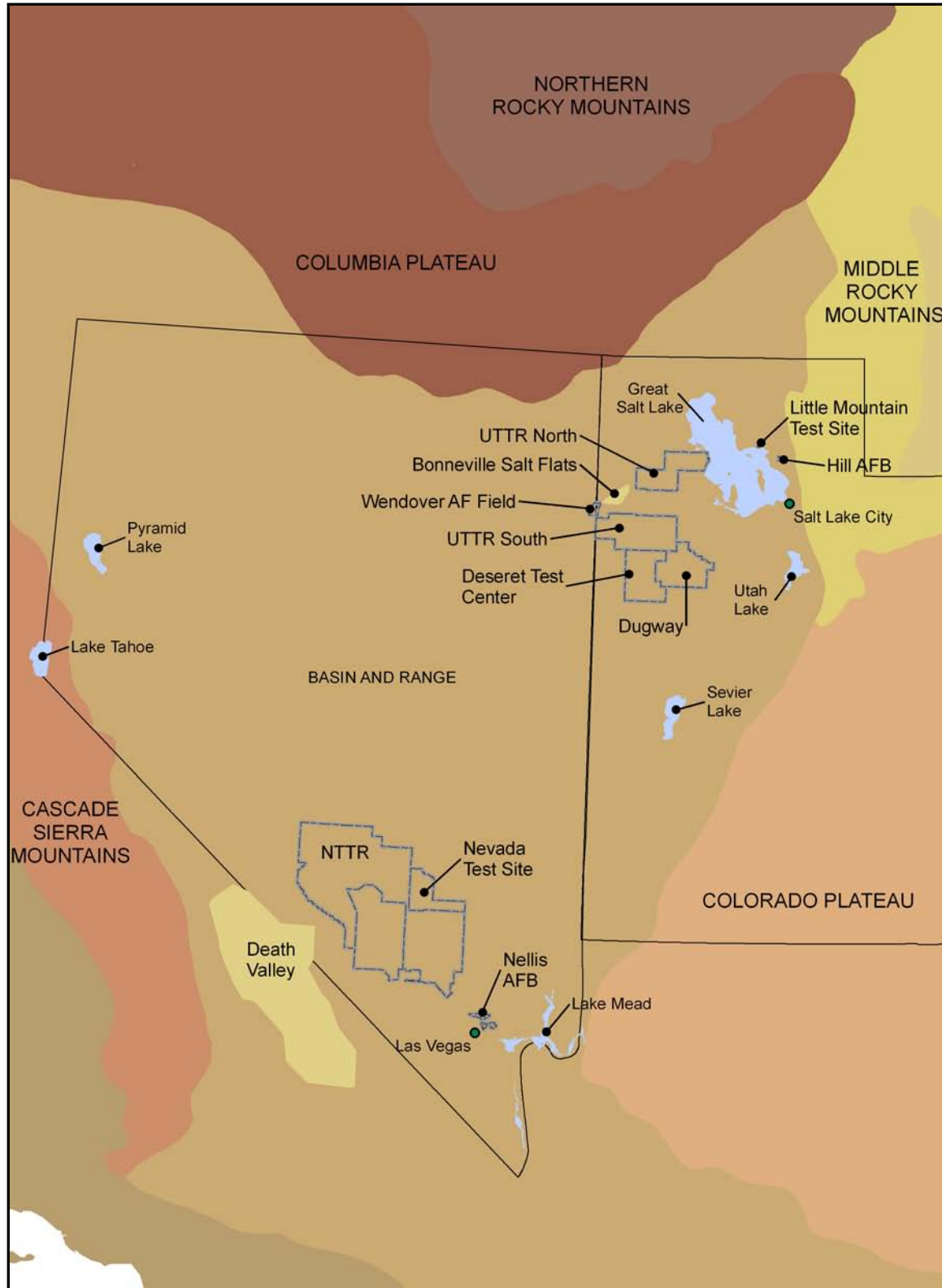


Figure A-1. Physiographic map of the Great Basin, showing Hill AFB, Nellis AFB, and their managed lands (after Fenneman 1931).

A coniferous forest zone (sometimes called the Great Basin Montane) exists on landforms above approximately 7,000 ft (2,382 meters [m]) amsl in elevation where there is sufficient landmass and soil to support forest communities (Figure A-2). In the northern reaches of the Great Basin, where snow fall is greater and temperatures lower, alpine conditions prevail at these and higher altitudes. The texture, age, and depth of sediments in this zone are variable. Canyons and bedrock exposures or erosional surfaces with areas of shallow alluvial and colluvial deposition from the overlying mountains (the Lower Mountain Flanks) often occur below the coniferous forest zone and above alluvial fans that typically extend to the valley floors. Coalescent alluvial fans, extending from the enclosing mountain ranges, comprise what are called the Upper Bajada and Lower Bajada environments by some researchers. Bajadas typically consist of coarse sediments in their upper layers with increasingly finer sediments at lower elevations. Valley floors are composed of level and somewhat younger alluvial and pluvial sediments that stretch between the bases of opposing alluvial fans.

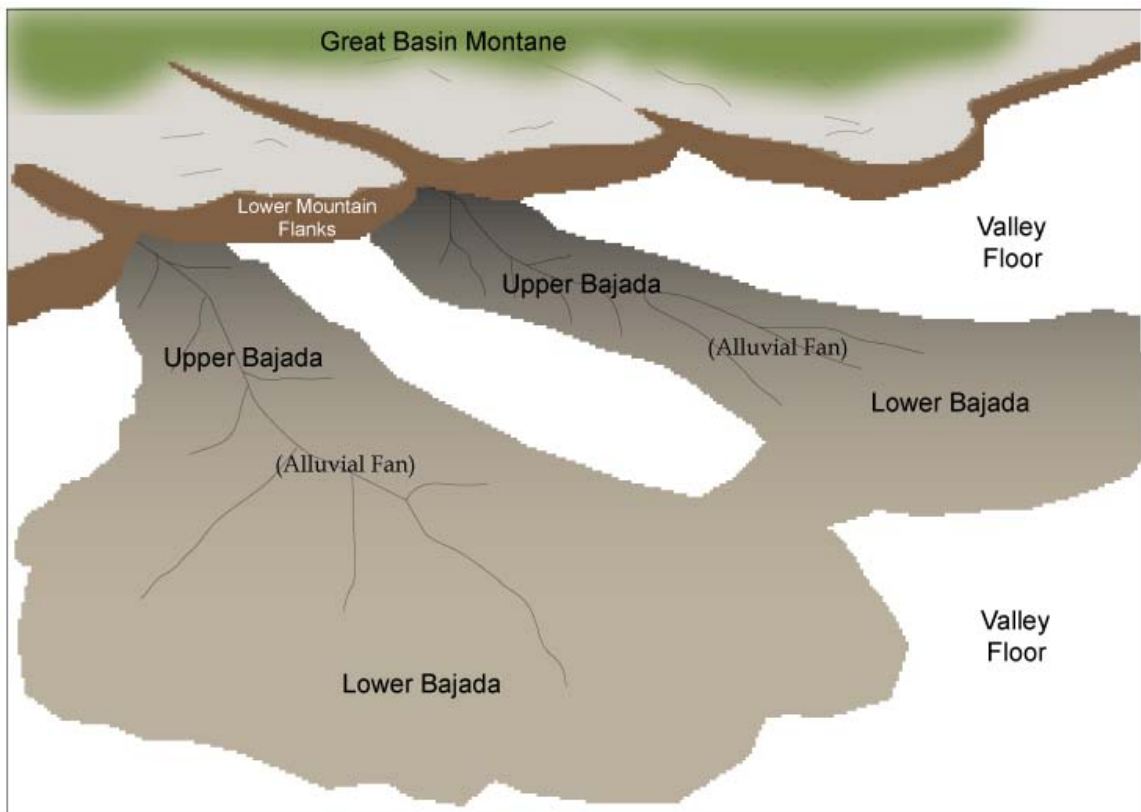


Figure A-2. Graphic depiction of the general topographic variation from the mountains to the valley floors within the Great Basin.

Climatically the Great Basin is considered a cold desert, with high summer temperatures, relatively low humidity, low winter temperatures, frequent strong winds, and low precipitation that falls mainly during the winter months as both rain and snow. The importance of winter rain and snow cannot be over-emphasized. Although one edge of the training ranges at Hill AFB is along the shoreline of the Great Salt Lake, water is not plentiful in most parts of the basin. At Nellis AFB, where there are 97 springs and only one permanent stream, annual precipitation

varies from 4 inches in the basins to 16 inches in the mountains (Kitchen 2007:31). Water from winter storms does not drain out of the hydrographic basins but remains within them until it is absorbed or evaporated. Moisture generated by summer rains is mostly evaporated; in other seasons, when sufficient, it will flow through intermittent drainages into playas where it will evaporate more slowly or be absorbed as part of the ground water system. It is important to note, however, that not all playas within each of the intermontane valleys hold water every year. Elevation also greatly affects annual precipitation in local environments within the region. High mountains can receive significant amounts of snow, while some basins, particularly in the southern part of the region, receive much lower amounts of winter rain or snowfall.

Because many European explorers and settlers moving west considered the Great Basin barren and uninhabitable, this was one of the last areas of the continental United States to be mapped (D'Azevedo 1986:1–2). Yet, for those who take the time to study it, the region has significant plant and animal diversity (Figure A-3).

The diversity in vegetation communities and animal distributions in the Great Basin largely represents responses to local conditions of elevation, topographic relief, soil types, and total annual precipitation. In general, the southwestern portion of the Great Basin has the lowest precipitation and highest summer temperatures. Thus, this area has the sparsest vegetation within the basin (Figures A-4 and A-5) contrasting with the relatively lush saline meadows, marshes, grass-sedge meadows, and sage-greasewood vegetation communities in Utah Valley in the northeastern portion of the region (Janetski and Smith 2007:8).

The highest elevations in the mountains of the Great Basin, generally above 9,000 feet, usually are above the timberline and often contain rocky and poorly developed soils that support little plant cover; where present in these alpine zones, plants are usually dominated by alpine herbs (Harper 1986:55). As one descends, depending on local moisture and soils, open conifer forests and occasional stands of aspen are present. This, in turn, is followed by a relatively dense, tall sagebrush zone that also supports grasses and other herbs. This zone is followed by a piñon/juniper woodland that can be fairly dense where soils are deeper and moisture sufficient. Below these woodlands and extending out on to the valley floors is another sagebrush zone interspersed with some grasses. However, unlike the tall sagebrush zone above the piñon/juniper woodland, here the sage is widely spaced, lower in height, and fewer grasses are present (Harper 1986:52–53). In the lowest elevations within valleys or basins, playas—remnants of Ice Age lakes—often hold rainwater or snow melt for a few weeks or months. When moist, these playas, which are sometimes little more than small seeps, support a remarkable diversity of rushes, grasses, and halophytes (Musil 1995:7–11; Wingard 2001:29). In the areas of former Lake Bonneville and Lake Lahontan, these playas can be quite large. Because salts have concentrated in the valley floors from thousands of years of erosion of the dissolved salts in the mountain bedrock, the plants concentrated in these productive marshes have a tolerance for soluble salts. In contrast, springs, where present, often support lush adjacent grasses and rushes (Figure A-6).

Many of the mountain ranges in the Great Basin have steep-walled canyons (Figure A-7). These steep-walled canyons create threshold effects that retard evaporation and moderate the temperature extremes found elsewhere in the basin. The canyons naturally accumulate runoff from large areas of surrounding uplands during winter snowmelts and rains and briefer summer thunderstorms. Sediment along stream courses in the canyon bottoms is alluvium that varies from coarse to fine and is generally well drained. These conditions allow the development of more diverse plant communities with higher canopies and more dense concentrations of plants

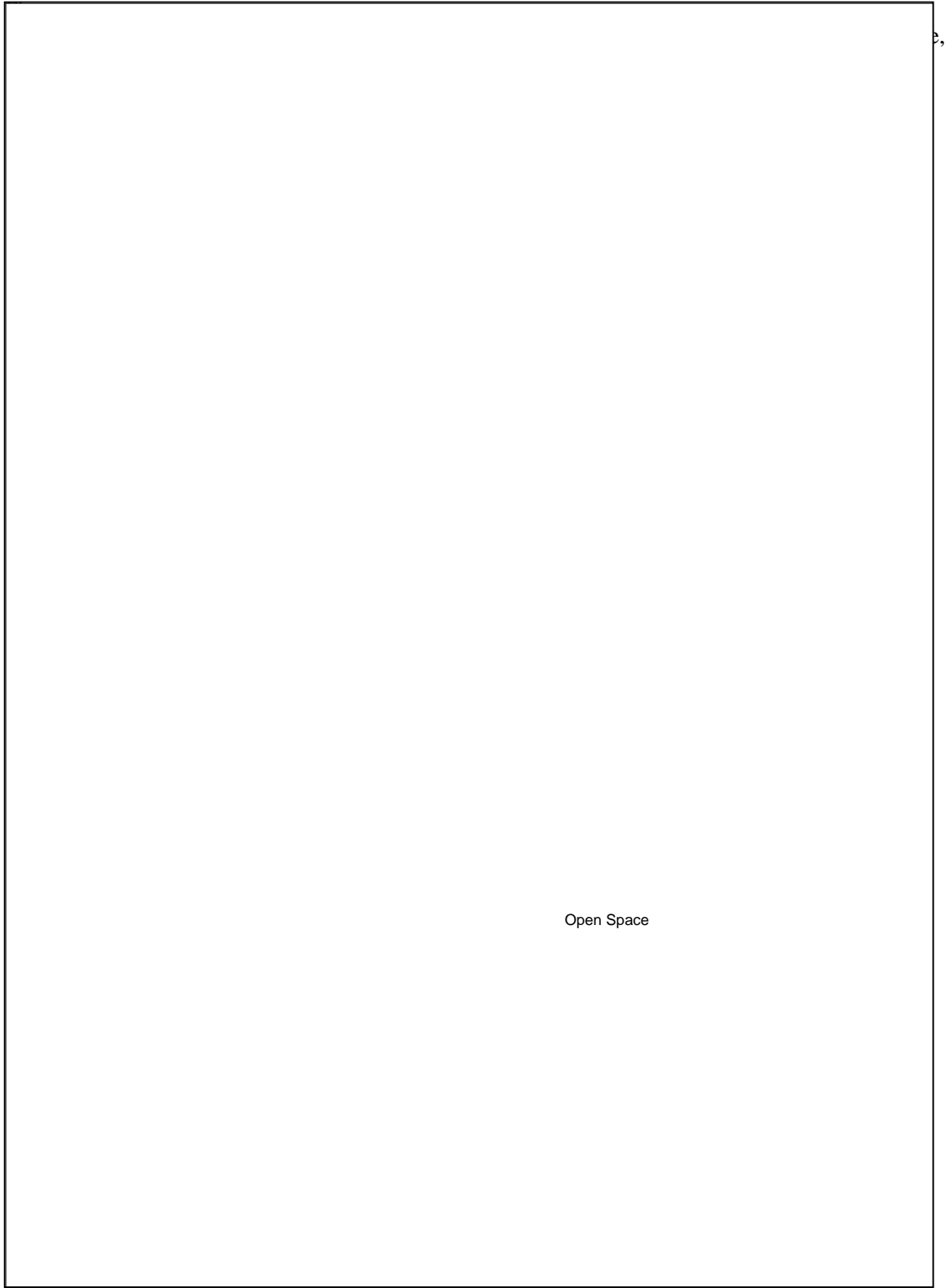


Figure A-3. Map of the biotic communities on the northern part of the Utah Test and Training Range, Hill AFB.



Figure A-4. Sparse vegetation, looking at Upper Pahute Mesa in the southern Great Basin.

than occur on the surrounding uplands. Desert bitterbrush, tall sagebrush, and rubber rabbitbrush, which are absent or extremely sparse in the surrounding uplands, form large communities in the canyon bottoms with individuals sometimes reaching heights of 6 ft. Rocky Mountain juniper, which is common in the Great Basin Montane floral zone, also occurs in these low-elevation canyon environments as scattered individuals or small stands on rocky slopes and promontories.

Fauna within the Great Basin are represented by species that can tolerate the region's arid conditions. Although this has been a limiting factor for some species (fish, amphibians, and turtles), other species such as snakes, lizards, and rodents have attained an "unusual species diversity for temperate North America" (Harper 1986:57). Birds and hoofed mammals are also present, in about the same diversity as in other regions of the United States. However, due to the short growing season and severe winters, large vertebrates decline in numbers as elevation increases (Harper 1986:57).

In the basins, fauna are both low in diversity and tend to be smaller in size. Burrowing rodents such as the kangaroo rat (*Dipodomys* spp.), kangaroo mouse (*Microdipodops megacephalus*), pocket mouse (*Perognathus parvus*), and antelope ground squirrel (*Ammospermophilus leucurus*) are among the more common residents of the basins. The horned lark, vesper sparrow, western king bird, and loggerhead shrike are common birds at these low elevations, although raptors, including the red-tailed hawk (*Buteo jamaicensis*), golden eagle (*Aquila chrysaetos*), prairie falcon (*Falco mexicanus*), American kestrel (*Falco sparverius*), common barn owl (*Tyto alba*), and great horned owl (*Bubo virginianus*) that feed on small mammals that live in the basins, are also well represented (Kitchen 2007:40). Six bats species, living in caves, trees, or abandoned mines and structures, have been found in the southern portions of the basin (Kitchen 2007:39).



Figure A-5. Map of the biotic communities on the Nevada Test and Training Range, Nellis AFB.



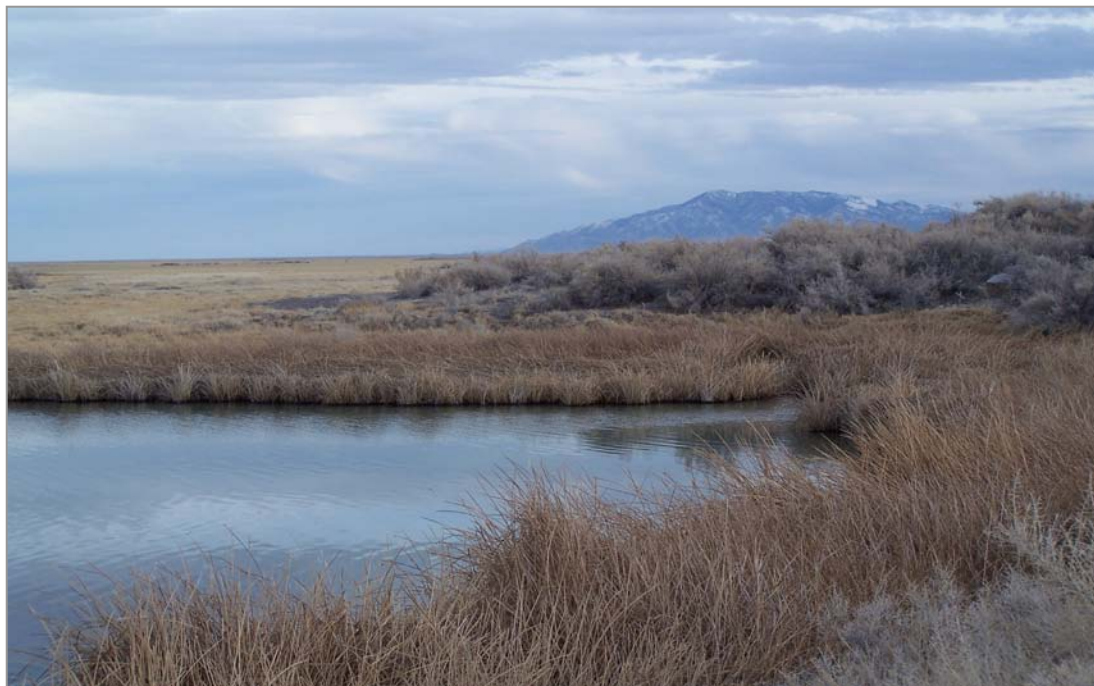


Figure A-6. Spring at Mosquito Willie's on the UTTR with mountains in background. Note the adjacent rushes and grasses.



Figure A-7. View of the West Fork of Thirsty Canyon with Black Mountain in the distance. Located on the NTTR, the canyon is considered a traditional travel route or pilgrimage to Black Mountain. In the foreground is Mr. Joe Kennedy of the Timbisha Shoshone, a member of the archaeological survey team. Mr. Kennedy's father made the pilgrimage to Black Mountain in the early 20<sup>th</sup> century (photo by Eric Hansen, GMI).



Progressively more dense animal populations are present as elevation increases until the alpine zones are reached, and the piñon/juniper woodlands support the greatest bird diversity. Pronghorn antelope, along with kangaroo rat, chipmunk, woodrat, ground squirrel, jackrabbit, and cottontail rabbit, are found in the sagebrush and tall sagebrush-grass communities (Harper 1986:57). At slightly higher elevations, the mule deer, badger, desert kit fox, bobcat, red fox, gray fox, sagehen, mourning dove, and coyote are abundant. Mountain lion are also present in the piñon/juniper and higher zones. Elk and bighorn sheep were once present in higher elevations, although today elk are confined to only a few of the northernmost mountain ranges, and bighorn sheep are generally found only in the canyonlands of the Colorado River. Other species found at higher elevations include pocket gopher, ground squirrel, red squirrel, pika, porcupine, marmot, and beaver (Harper 1986:58).

Based on the above background, the Great Basin, a vast, high, and generally cool desert, is home to a variety of small ecotones that provide diverse habitats, plants, and fauna. The diversity varies according to elevation, but also from north to south across the desert. Thus, the basins in the north are somewhat broader, and many of the playas in this part of the basin are quite large. Hill AFB, located in the northern part of the Great Basin, manages the Utah Test and Training Range (UTTR). The UTTR, along with the Wendover Auxiliary Area (also managed by Hill AFB), is largely within the broad basin and the salt flats that were once part of Lake Bonneville (see Figure A-3). No year-round streams are on the UTTR, but part of the range abuts the western shoreline of the Great Salt Lake. Headquarters is situated at the foot of the Wasatch Mountains, and the Little Mountain Test Facility, a 740-acre parcel, is on the eastern edge of the Great Salt Lake (Figure A-8).

This northern part of the Great Basin generally receives greater winter precipitation, and thus the vegetation is somewhat denser than in the south. Where moisture is sufficient in the northern mountains, “[c]losed forests of Douglas fir, ponderosa or lodgepole pine (*Pinus contorta*), aspen, or spruce, and fir” are found on developed soils (Harper 1986:55). Some basins in the north have relatively deep-soiled plains, and dense grasslands could be found in some ecotones when Europeans first began settling in the region (Harper 1986:51). Archaeological sites indicate that bison were once present in this portion the region (Roe 1951).

In contrast, the southern part of the Great Basin is characterized by narrower valleys or basins between mountain ranges. Nellis AFB and its managed lands, known as the Nevada Test and Training Range or NTTR, are located in this portion of the basin (Figure A-9). Portions of the NTTR grade into the Mojave Desert with its creosote-dominated landscape that is a lower, but also a warmer desert. The southern part of the basin includes Death Valley, the lowest place in North America. Nellis and the NTTR do not extend into Death Valley, but the valley is part of the Panamint Military Operating Area and is used by military aircraft assigned to Nellis AFB.

Cacti and succulents are more prominent in the southern part of the basin, and the Colorado River within the Mojave Desert has carved immense canyons with large expanses of exposed bedrock. Volcanic landforms on the NTTR can create “islands” of environmental settings similar to those found in canyon interiors (Figure A-10). One such area, containing massive vertical-walled volcanic outcrops with numerous stream outflows along their bases, is west of Black Mountain and in the northern reach of the NTTR. It contains luxuriant communities of wild rye and Indian ricegrass in surprisingly deep alluvial sediment accumulations.

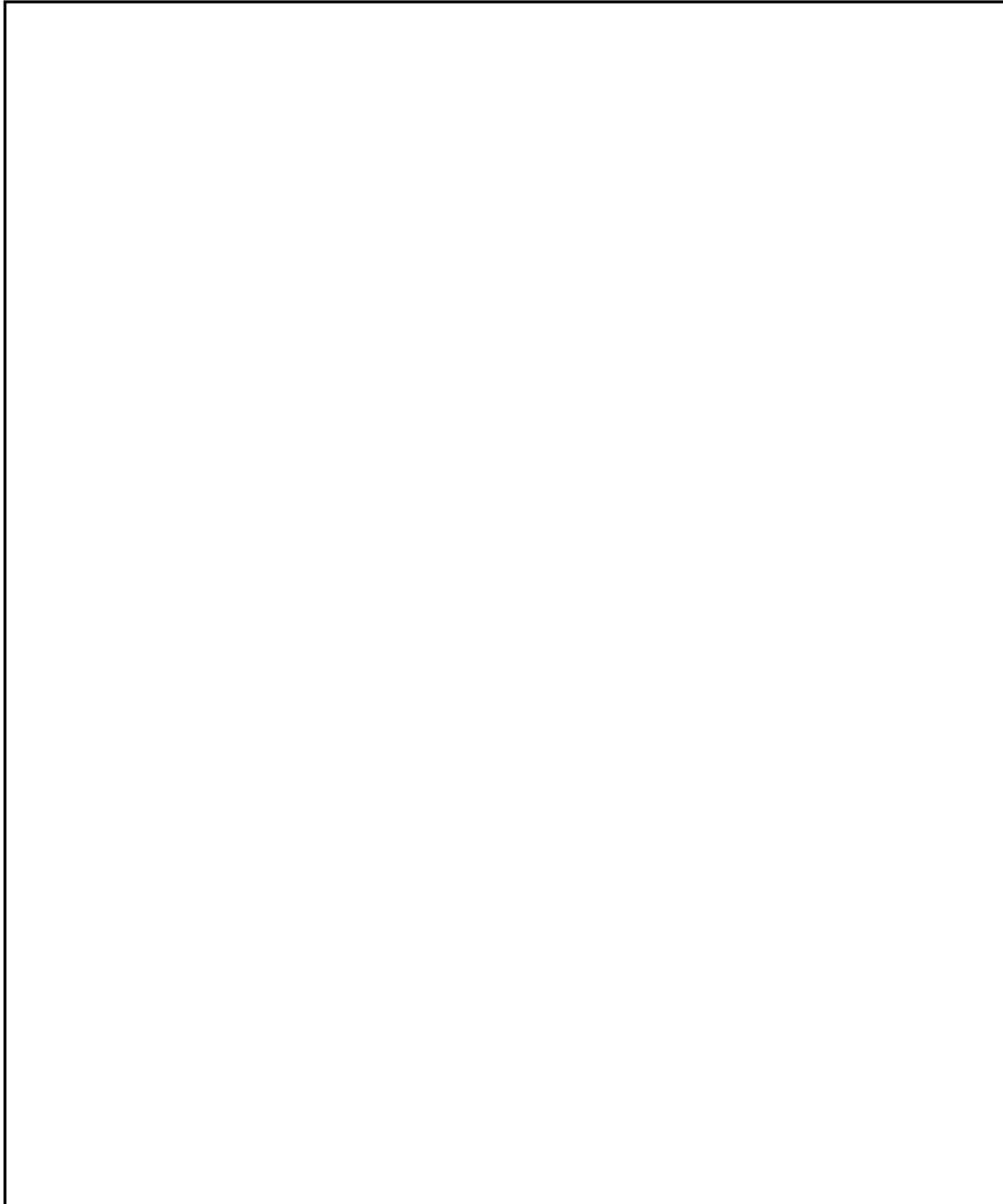


Figure A-8. The location of Hill AFB and the UTTR within the northern Great Basin and in relation to Bonneville Flats and the Great Salt Lake.

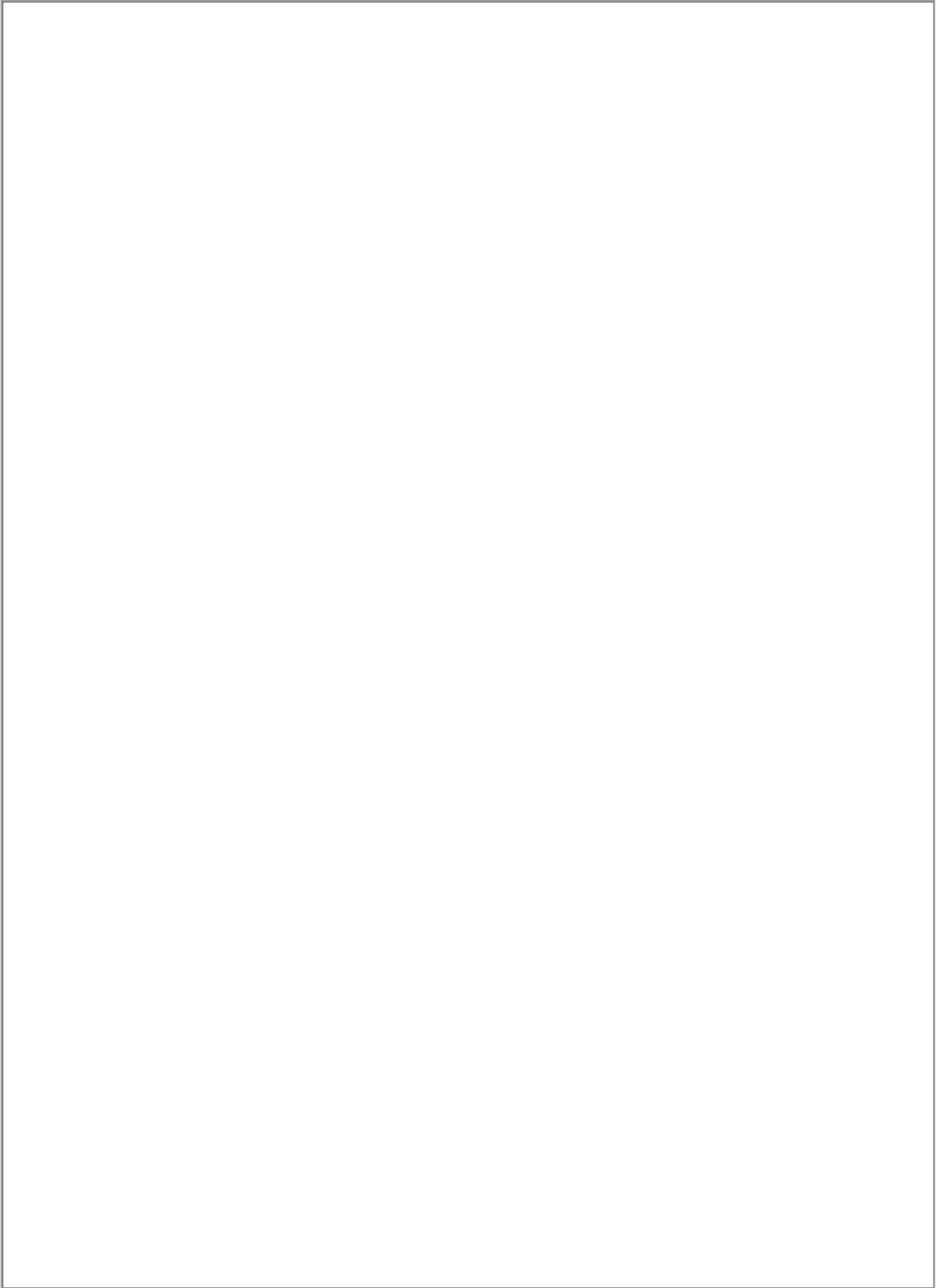


Figure A-9. The location of Nellis AFB and the NTTR within the southern Great Basin.



Figure A-10. Volcanic outcrops near Black Mountain in the NTTR. View eastward along an unnamed tributary (foreground) of West Fork Thirsty Canyon (background). Bitterbrush, rabbitbrush, and big sagebrush cluster in the canyon interiors; scattered juniper trees are also present.

Raptors, other birds, reptiles, and other species found in the northern part of the basin are generally also found in the southern basin with the exceptions noted above. The NTTR, however, does include the Nevada Wild Horse Range; it coincides with most of the northern NTTR (Kitchen 2007:16). Introduced in the last 200 years, approximately 800 wild mustangs are currently estimated to be present on these lands, although in the early 1990s up to 10,000 were present (Kitchen 2007:43–44).

An overview of the Great Basin, even as brief as the present one, would be incomplete if it did not mention the tremendous changes that have been imposed on the local ecosystems within the basin in the last 150 years. Prior to European settlement, there is relatively good archaeological evidence that Indians set fires at times to encourage the growth of plants such as wild tobacco and seed crops (Harper 1986:63). However, few other significant impacts are known to have been made by the Indians occupying the basin. In contrast, European settlers established towns and ranches where water and forage were plentiful. “Fertile bottomlands that were once the most productive in the area and supported large populations of small mammals and birds and big game at least seasonally were rapidly cleared and plowed or converted to permanent pastureland” (Harper 1986:63). Forests were cut for construction materials. Many faunal species, including fish and waterfowl, were eliminated or greatly reduced as habitat was destroyed. New, European species of plants and animals were introduced. Some introduced species were incompatible with existing species. Bighorn sheep were not only unable to compete with cattle for forage in lower elevations, cattle also introduced two parasites for which the sheep had no natural immunity, greatly reducing their numbers and areal extent. As well, cattle and other domestic grazers

caused shrub components of the sagebrush-grass communities to expand to the point where sagebrush now dominates the vegetation (Grant and Wenzlau 2008; Harper 1986).

These changes have profoundly altered the natural ecosystem of the Great Basin. Other changes continue, particularly in areas close to the larger urban centers of Provo/Salt Lake City/Orem and Las Vegas. Hill and its managed lands are close to the former; Nellis AFB and its managed lands are contained within and adjacent to Las Vegas. Roads, water and power plants, sewers, commercial and shopping centers, and etc. for growing populations and suburbs strain limited desert water systems and have dropped the water table. Some springs have gone dry due to large-scale irrigation systems. Smog from bustling urban developments creates haze that obscures desert vistas and mountains. Many of these and the earlier impacts to local ecosystems from European settlement cannot be reversed. Moreover, it is unlikely that the ongoing impacts to local ecosystems as a result of increasing urbanization will end any time soon. Thus, the changes themselves as well as the impacts now make up part of the modern ecosystem.



## **CHAPTER 3**

### **AMERICAN INDIAN USES OF THE GREAT BASIN**

Indian people have occupied the Great Basin for 10,000 years (Wingard 2001). Some may have migrated in or out of the basin at various times, but others may have been here throughout these millennia. The Goshute, affiliated with the lands of Hill AFB, “believe that their ancestors have lived in the eastern Great Basin for thousands of years, as far back as the archeologically defined Paleoindian and Archaic periods” (Sucec 2007:48). Regardless of their length of time in the Great Basin, Indian people living in this region became intimately familiar with the resources in their own and adjacent lands and used them to physically and spiritually sustain themselves (see Carroll and Stoffle 2004; Clemmer et al. 1999; Fowler 1986; Kelly and Fowler 1986 among others). These groups “mapped on” to the ecological diversity within the Great Basin as they capably carried out their daily lives.

Ethnographic, archival, and archaeological data along with oral histories were used by D’Azevedo (1986:1) to develop a generalized map of portions of the Great Basin used by those groups (Figure A-11). As D’Azevedo notes, however, the map in Figure A-11 is not precise. Individual tribes may dispute boundaries or broad group names. However, the map merely depicts general areas that have been associated more frequently with one group than with others. Borders were fluid and unmarked, and people moved across them frequently and often. Therefore, Figure A-11 is included for illustrative purposes only.

The following discussion is a brief overview of some of the types of natural resources that are important to Indian people occupying the Great Basin and that are likely still important to one or more tribes affiliated with Hill AFB or Nellis AFB. The discussion is largely taken from 20<sup>th</sup> century ethnographic reports, although two recently completed ethnographic studies for Nellis AFB (Carroll and Stoffle 2004; Henderson 2008), an overview of consultation between Indian tribes and the Nevada Test Site (Stoffle et al. 2001), the recent tribal affiliation study for Hill AFB (Sucec 2007), and our discussions in 2008 and 2009 with tribes affiliated with Hill and Nellis AFBs were used. Nonetheless, the following overview is not intended to be comprehensive, but rather focuses on information for selected resources to illustrate the breadth of the environmental resources used by Native peoples and how and why they hold them dear.



Figure A-11. Physiographic map of the Great Basin overlain by general cultural divisions (after D' Azevedo 1986:ix), in relation to Hill AFB, Nellis AFB, and their managed lands.



## **BASKETS: TOOLS MADE FROM NATURAL RESOURCES**

American Indians constructed a diverse array of tools to aid in their ability to hunt, gather, create shelter from the elements, and successfully live in their environment. Access to materials to achieve these goals was formerly accomplished through alliances and intermarriage with neighboring groups and subsequently cemented with frequent visits with friends or relatives, through trade, and through reciprocal exchange. Withdrawal of the Hill AFB lands and those of Nellis AFB in the 1940s reduced or limited access to some resources that had been important in production of those tools (Arnold 2009; Stoffle et al. 1990).

While Indian people living in the Great Basin used a broad array of natural resources to fashion tools, we concentrate here on baskets (Figure A-12). The basketry from the region has been called “one of the technological hallmarks of archeological and ethnographic Great Basin groups” (Fowler and Dawson 1986:705). Baskets as implements were made in a variety of shapes and sizes, using twined, coiled, and wicker-plaited techniques. Baskets served diverse functions, and had a variety of intricate and pleasing designs. Shapes and sizes reflected function. Baskets to carry water typically had a constricted opening with a rounded or conical body whereas burden baskets and seed-gathering baskets had large, open mouths that funnel to a closed point at their bottoms (Fowler and Dawson 1986:709, 711). Techniques used to weave the baskets varied from one group to another, and ethnographic evidence suggests that individual preferences often influenced designs (Fowler and Dawson 1986:729–735).

Native peoples whose environs included permanent lakes such as the Great Salt Lake or the freshwater Utah Lake also made fish traps or weirs from basketry. Other common types of basketry in the Great Basin consisted of parching or winnowing trays, scoops, seed beaters, berry baskets, and a variety of container baskets of all sizes to hold or store seeds, nuts, personal items, and other materials.

The principal materials used to manufacture basketry goods were native plants (Table A-2), most of which can still be found in the basin, usually associated with playas, lakes, seeps, or springs. Design elements in Table A-2 are ethnological and some continue into the modern era, but nearly all of the items in the “Other” column are materials and styles that were introduced between the late nineteenth century and ca. 1950 (Fowler and Dawson 1986:730–734). In part, these new, introduced elements reflect local efforts to appeal to market and tourism pressures, and many of the materials (devil’s claw, Joshua tree root, etc.) are materials that are rarely encountered in the basin and represent trade goods.

It is important to note that, as shown in Table A-2, the key materials involved in making basketry (i.e., the warp and weft) are willows with some use of grasses and sumac. Although sumac can be acquired in several parts of the broad ecotone of the basin, willows are largely confined to areas of higher available moisture. Willows and grasses are present on both Hill and Nellis lands around playas, springs, or in the islands of greater moisture found in the shadows of steep-walled canyons like those on the west side of Black Mountain on the NTTR. However, as noted above, access to these resources, where present on Hill AFB and Nellis AFB, has been restricted since 1941 when these lands were withdrawn. Not only did the withdrawal of these lands restrict access to acreage being used for air combat training, but it also reduced east–west movement through the region. If willows, or other goods used to construct tools, musical instruments, or other traditional implements, depended on an east–west movement through the training lands, that movement would have been impeded when the land was withdrawn. Thus, it may not be



Figure A-12. Woman, “The Basketmaker,” Making Basket Near Brush Dwelling (photograph taken by John K. Hillers, 1873, Powell expedition; courtesy of National Anthropological Archives, Smithsonian Institution).

coincidental that Fowler and Dawson (1986:735) state, that, “[a]lthough no figures are available, it is generally felt that basketry production in all Great Basin areas (except perhaps among the San Juan Southern Paiute) has been declining since 1945.” At the same time, it should be acknowledged that the Air Force stewardship of these lands has been fulsome. Access to these lands by all parties, not just Native Americans, has been restricted in the last 70 years. Hence, natural resources have generally been protected and most continue to be available.

### **FOOD PREFERENCES**

The flora and fauna in the Great Basin provided the food larder for Native peoples. They also served more than just culinary purposes, providing medicinal and ceremonial functions. As noted above, when Europeans first arrived, they considered only the lands near the lakes and rivers fit for their settlement and communities, believing the remainder to be inhospitable (Sucec 2007:25). Some twentieth-century ethnographers (Steward 1938:134) and archaeologists (Wormington

Table A-2  
Materials Used in Ethnographic Basketry in the Great Basin

| Group                         | Warp/Weft                                 | Design   | Other  |
|-------------------------------|---|--|--|
| Washoe                        | Willow / willow                           | Bracken fern root, red bud   | Mallard feathers   |
| Owens Valley Paiute           | Willow, ryegrass / willow                 | Devil's claw root, Joshua tree root, bracken fern, northern flicker quills                     | Overpainting quail crests, mallard feathers, meadowlark feathers |
| Northern Paiute               | Willow / willow                           | Bracken fern root, redbud  | Overpainting   |
| Panamint Shoshone             | Willow, sumac, bunchgrass / willow, sumac | Bulrush root, Joshua tree root, devil's claw, northern flicker quills, American crow quills    | Overpainting   |
| Western Shoshone              | Willow / willow                           |  | Aniline dyes   |
| Northern Shoshone/<br>Bannock | Willow / sumac                            |  | Aniline dyes   |
| Eastern Shoshone              | Willow / willow                           |  |  |
| Kawaiisu                      | Willow, bunchgrass / willow               | Joshua tree root, yucca root, sumac, bracken fern, devil's claw, rush, northern flicker quills | Overpainting, quail crests, yarn                                 |
| Chemehuevi                    | Willow / willow                           | Devil's claw, rush root, rush, northern flicker quills   | Quail crests   |
| Southern Paiute               | Willow / sumac                            | Devil's claw, Joshua tree root, rush root  | Overpainting   |
| Ute                           | Willow / sumac                            |  | Overpainting   |

After Fowler and Dawson 1986:724, Table 3

1957:ii) continued to believe that the Great Basin was a “forbidding” and “desolate” land. However, as Sucec (2007:25) points out, “Euroamericans typically think of productive food environments as farmlands and are therefore unlikely to regard the Great Salt Lake and Desert as an environment possessing life-sustaining resources.” Yet, the Great Salt Lake and the Great Basin, more generally, do possess life-sustaining resources. Recent archaeological, ethnographic, and ethnohistoric studies are beginning to document what Native peoples have long known: the diversity and availability of food resources in the basin are and have long been more than adequate to sustain human occupation for the last 10,000 years.

The remarkable variety of food resources in the basin was ably exploited by Native peoples. To illustrate that variety, the following material on the Western Shoshone published by Thomas et al. (1986) and Sucec (2007) is offered. Occupying a broad southwest to northeast belt across Nevada from Death Valley to northeast of the Great Salt Lake, the Western Shoshone (including the Goshute) “employed markedly diverse strategies of procurement” (Thomas et al. 1986:265). Plants constituted the mainstay of the Western Shoshone diet, supplemented by hunting of mostly small mammals. With the ripening of the piñon nuts in the fall, individual families would settle into small villages with other families near trees being harvested for their nut crop. Steward (1938:27 in Thomas et al. 1986:266) concluded that an individual family would gather up to 1,200 pounds of these pine nuts during the harvest season. Storing the nuts in a cache near the village, this quantity of food would feed the family for about four months. Many of these small villages were situated near springs, seeps, or other water sources that contained other food resources such as spinach, rock cress, and cat tails to supplement the piñon nuts (Sucec 2007:55). Families living in the northeast, near Utah Lake and the Great Salt Lake or along one of the rivers in that region, added fish to their menus. Western Shoshone living in Death Valley substituted mesquite pods for piñon nuts (Thomas et al. 1986:267). These pods can be ground into a flour using a mortar and pestle and then transported as small cakes.

As the winter snow and rain receded and the piñon nut caches were depleted, families began foraging farther from the winter village and eventually left to seek other ripening food resources. Spring resources included ripening greens in the lowlands. By summer, seeds and berries were available in the low foothills. Seeds from rice grass, Indian millet, balsam arrowroot, chenopods, pickleweed, salvia, and thistle were an especially important part of Western Shoshone diet (Thomas et al. 1986:266). Large quantities of seeds were gathered, threshed, winnowed, cooked, and, at least some, were then ground into flour. Many were subsequently carried by the family in large baskets to another camp. Other spring and early summer foods that were harvested and either eaten immediately or stored by the Western Shoshone included chockcherries, raspberries, blue elderberries, golden currants, squaw currants, grouseberry, and bearberry (Sucec 2007:63). Bulbs and roots were also part of their food inventory. Wild onions, sego lily bulbs, yampa, and fritillaria were all harvested in the spring and early summer, mostly as stores for winter.

A recent archaeological survey on the NTTR included efforts to document plant resources available in differing micro-environments and known to have been used by Native people; a list of those identified is shown in Table A-3. The table reveals the wide array of species available. It should be noted, however, that some grasses may be under-represented because they are still recovering from the historic impacts of over-grazing. Also underrepresented were primary succession annuals or “disturbance zone” species that colonize and thrive in disturbed soils. Conspicuously absent were such economically valuable species from the genera *Chenopodium* (*Goosefoot*, *Lambs Quarters*), *Amaranthus* (*Amaranth*), *Helianthus* (*Sun Flower*), *Mentzelia* (*Stick-leaf*, *Blazing Star*), *Lepidium* (*Peppergrass*), and *Lappula* (*Stickseed*/*Sticktight*) that traditionally made substantial contributions to the traditional vegetable food supply of native groups of the region (Steward 1933, 1938; Kelly 1964; Palmer 1878; Bye 1972; Coville 1893; Zigmund 1981).

These resources usually occur near canyon drainages where rockshelters are commonly found. A large cache of *Mentzelia albicaulis* (stickleaf) (Figure A-13) seeds in a 60 cm x 45 cm storage basket was found at 26NY12505 located in the upper West Fork of Thirsty Canyon. Based on average seed size and volume, the basket contained an estimated 3,800,000 *Mentzelia albicaulis* seeds (Grant 2007), a number requiring the contents of seed pods from thousands of *Mentzelia*

Table A-3  
Commonly Observed Edible Plant Species in the XX Survey on the NTTR, by Micro-Environment

| <i>Commonly Observed Open Desert Scrubland Species</i>                                       |  |
|--|--|
| Basin Wild Rye ( <i>Leymus cinereus</i> )  | Seeds considered a critical food source (Liljebblad and Fowler 1986; Steward 1938)   |
| Beavertail Cactus ( <i>Opuntia basilaris</i> )   | Fruits and blossoms eaten raw. Stems roasted and eaten (Coville 1893; Zigmond 1981; Stoeffle et al. 1989)  |
| Big sagebrush ( <i>Artemisia tridentata</i> )  | Seeds gathered for food in times of extreme shortages (Steward 1933)   |
| Desert Needlegrass ( <i>Achnatherum speciosum</i> )  | Seeds considered a critical food source (Steward 1938; Liljebblad and Fowler 1986)   |
| Greasewood ( <i>Sarcobatus vermiculatus</i> )  | Seeds occasionally used for food by Southern Paiute (Bye 1972)   |
| Indian Ricegrass ( <i>Oryzopsis hymenoides</i> )   | Seeds considered a critical food source (Coville 1893; Kelly 1964; Liljebblad and Fowler 1986; Steward 1938; Zigmond 1981; Stoeffle et al. 1989) |
| Joint Fir ( <i>Ephedra nevadensis</i> )  | Stems boiled in beverage. Seeds parched and used as food (Coville 1893; Steward 1938)  |
| Joshua Tree ( <i>Yucca brevifolia</i> ).   | Fruits and flowering branch tips roasted or boiled. Seeds eaten raw (Bye 1972; Coville; Fowler 1995).  |
| Mojave Prickly Pear ( <i>Opuntia erinacea</i> )  | Fruits eaten fresh or roasted and made into jams or wine (Bye 1972, Stoeffle 1989)   |
| Mormon Tea ( <i>Ephedra viridis</i> )  | Stems boiled in beverage. Seeds parched and eaten (Coville 1893; Steward 1938)   |
| Range Ratany ( <i>Krameria erecta</i> )  | Seeds occasionally collected for food (Stoeffle et. Al 1989)   |
| Shadscale ( <i>Atriplex confertifolia</i> ),   | Seeds occasionally used for food by the Southern Paiute (Bye 1972)   |
| Silver cholla ( <i>Opuntia echinocarpa</i> )   | Young stem buds cooked and eaten (Laird 1976)  |
| Wolfberry ( <i>Lycium andersonii</i> )   | Berries eaten fresh, juiced, or dried for future use. (Coville 1893; Palmer 1878, Stoeffle et al. 1989; Zigmond 1941; Bye 1972)                  |
| <i>Commonly Observed Species from Canyon Microenvironments and Higher Elevation Settings</i> |  |
| Scrub Oak ( <i>Quercus turbellina</i> )  | Acorns shelled and roasted in ashes (Kelly 1964)   |
| Banana yucca ( <i>Yucca bacata</i> )   | Roasted and sliced into strips or bars and dried and stored for food (Bye 1972; Kelly 1964)  |
| Bicult Root ( <i>Cymopterus</i> sp.)   | Early greens and tuberous roots boiled, roasted, or eaten raw. (Havard 1895; Castetter 1935)   |
| Desert currant ( <i>Ribes velutinum</i> )  | Berries eaten fresh and dried for future use (Kelly 1964; Palmer 1871, Steward 1941, Kelly 1964),  |
| Snowberry ( <i>Symphoricarpus longiflorus</i> )  | Berries may have been eaten occasionally (Stoeffle et al. 1989)  |
| Squawbush ( <i>Rhus trilobata</i> ) and  | Fruits eaten fresh or dried and stored or pulverized and added to beverages (Bye 1972; Kelly 1964; Palmer 1878)                                  |



Table A-3 (cont'd)

|   |  |
|---|--|
| Juniper ( <i>Juniperus utahensis</i> )  | Berries sometimes eaten raw (Bye 1972; Kelly 1964; Stoeffle et al. 1989)                     |
| Pinyon ( <i>Pinus monophyla</i> )   | Seeds considered a critical food source (Coville 1893, Egan 1917; Kelly 1964; Steward 1938)  |
| <i>Occasionally Observed Species from Disturbance Zones</i>   |  |
| Evening primrose ( <i>Oenothera caespitosa</i> )  | Seeds gathered and toasted (Steward 1933)  |
| Tansy Mustard ( <i>Descurainia pinnata</i> )  | Early greens boiled and eaten. Seeds parched added to flour mixture (Bye 1972; Steward 1938) |
| Chia ( <i>Salvia columbariae</i> )  | Seeds roasted and eaten as mush (Steward 1933; Stoeffle et al.; Zigmond 1981)                |
| Fiddleneck ( <i>Amsinckia tessellata</i> )  | Early greens boiled and eaten (Zigmond 1981).  |
| Thistle ( <i>Cirsium mohavense</i> )  | Shoots peeled and eaten raw (Steward 1933; Stoeffle et al. 1989)                             |
| Purslane ( <i>Portulaca retusa</i> ) May represent <i>Portulaca oleraca</i> – an edible but introduced species. | Early greens eaten raw, seeds parched for making flour (Palmer 1878)                         |



Figure A-13. Blazing Star, Stickleaf (*Mentzelia albicaulis*) (photo by Eric Hansen, GMI).

*albicaulis* plants. The fact that such species were relied upon by many groups in the region as important vegetable resources and hence, needed to be harvested in relatively large quantities (e.g., enough to fill the basket at 26NY12505) indicates that a good seed crop may have required a greater degree of human manipulation (e.g., intentional disturbance, protective tending, weeding and eradication of competitors, burning, seed dispersal) than would otherwise have occurred naturally.

Where suitable land was available, Western Shoshone also practiced horticulture (Carroll and Stoffle 2004). Small plots of corn, squash, beans, and pumpkin were planted, and some groups were known to broadcast wild seeds to enhance production of native foods (Sucec 2007:67). The favorite seeds for broadcasting were goosefoot and blazing star. In several communities, rather than broadcast the seeds, they were planted.

Small mammals were also part of the Western Shoshone diet, particularly jack rabbits and cottontails (Sucec 2007:67; Thomas et al. 1986:268). Typically, in the fall as families began to gather into villages to harvest piñon nuts, a fall rabbit hunt—a major social occasion—was organized to capture jack rabbits, largely for their fur. Other small game of interest included pocket gophers, chipmunks, pack rats, and ground squirrels. Among various birds that were hunted were dove, mockingbird, sagehen, quail, and, in areas where available, waterfowl.

Bighorn sheep were the most popular large mammal that was hunted by the Western Shoshone, and they were hunted year-round. Stalking and careful observation of the daily patterns of the prey over several days were employed as techniques in the hunt (Thomas et al. 1986:267). Antelope were another important source of protein, largely captured as part of a communal drive often using V-shaped runways to funnel a number of antelope into a brush enclosure (Thomas et al. 1986:267). Sucec (2007:68–70) details the account by Howard Egan who witnessed a communal antelope drive in the 1850s when approximately 200 antelope were killed and divided among the families participating in the drive. Numerous prehistoric V-shaped enclosures have been documented archaeologically in the northern Great Basin, and radiocarbon-dated between 1300 B.C. and A.D. 1850 (Arkush 1999), indicating that this technology had a considerable time depth in the region. Deer were also eaten, but were not hunted as frequently.

Other foods included lizards and snakes, but perhaps more important were insects that served as an abundant and nutritious source of food (Chamberlin 1911:336-337; Egan 1917:150). Crickets and locusts are good sources of protein and were eaten in season, as well as dried and stored to be made into bread. When grasshoppers swarmed, a family could obtain sufficient amounts to last for months. Native groups living near the Great Salt Lake during the swarms could find large quantities of crickets that had died in the lake and drifted to shore, already dried and naturally salted. Ants and their larvae were used in soups.

From this brief overview, it is clear that the natural resources in the Great Basin offered a diverse and seasonally changing supply of food for the Western Shoshone and other Native peoples. Because of the manner in which the Western Shoshone chose to utilize this food supply, their lifestyle was fairly mobile. Families would travel alone during the spring and summer months, coalescing in small villages near ripened piñon nuts to share the fall and winter with other members of their extended families or with friends. Given the archaeological evidence, this pattern has a long history, indicating that it was a successful adaptation for the Western Shoshone, and that, contrary to Euroamerican views, this land was not “inhospitable.”

Just as the settlement of the Great Basin by Euroamericans brought changes to the ecology of the region, it also affected Native people. Access to many perennial streams and rivers was cut off, and the destruction of native habitats reduced the array of food resources that the Western Shoshone and others had enjoyed. As a result, the Goshute and other Western Shoshone began to increase their dependence on horticulture, caring for small gardens near small streams or, when streams were not accessible, on arable soils augmented by irrigation (Sucec 2007:65). Some Native people in the basin worked on ranches; others were employed by the railroad or the mines that were worked in the early twentieth century. Although arriving settlers treated Native groups poorly, “the continuity of subsequent generations of Native Americans in the Great Basin is a tribute to their tenacity as a people” (D’Azevedo 1986:3). In their recent ethnography, Carroll and Stoffle (2004:34–38) demonstrate that, despite the changes, traditional knowledge is still being taught by both formal and informal lessons. Ted “Bombo” Cottonwood, an elderly Western Shoshone resident of Beatty, Nevada, was interviewed, and Carroll and Stoffle (2004:35) found that:

Cottonwood thus became a recipient of diverse forms of traditional ecological knowledge. This traditional ecological knowledge included (1) knowledge of local plants and animals, (2) knowledge of hunting and trapping, (3) knowledge of the Shoshone language, and (4) knowledge of trail systems. Cottonwood also learned about his natural surroundings as a holistic system.

Cottonwood’s statements and those of other Indian people who spoke with Carroll and Stoffle indicate that these people still retain an intimate knowledge of the land and its resources where they, like their ancestors before them, lived.

Retention of traditional, ecological knowledge of the land and its resources is important to the Western Shoshone and other tribes whose ancestral lands are in the Great Basin for two reasons. First, many of the flora and fauna are still utilized. In their summary of an ethnobiological study with Indian experts from Paiute and Shoshone tribes undertaken by the Department of Energy at the Nevada Test Site (located adjacent to Nellis AFB), Zedeño and Hamm (2001:106) found that 86 percent of the native plants identified are still used today. “Plant collection [among the Shoshone and Paiute tribes] is a traditionally sanctioned activity that has survived loss of land and the advent of modernity” (Zedeño and Hamm 2001:99). The tribes continue to harvest and process nuts, grass seeds, cactus, berries, and tea among other plants. Second, “[p]lants and animals occupy a crucial place in the cosmology, ritual, and everyday life of American Indians” (Zedeño and Hamm 2001:98). Thus, the flora and fauna of the Great Basin represent not only an important part of the larder used by these tribes, but they also represent resources that have deep ethnic, religious, and cultural importance to these people.

## **TOPOGRAPHIC FEATURES**

One final type of natural resource will be briefly discussed in this overview to underscore American Indian use and consideration of the Great Basin: topographic features. Here, the term “topographic features” represents places on the landscape (e.g., caves, mountain peaks, springs, etc.) that have meaning for a group.

Playas represent one such topographic feature. Archaeological evidence clearly documents the use of playa lakes by Native peoples of the Great Basin (Janetski and Smith 2007; Musil 1995; Wingard 2001). Many sites, from nearly all chronological periods, are well represented along the



shores of those playas and along the lakeshores of the remaining year-round lakes (Janetski and Smith 2007:5–7). Fish weir sites are not uncommon around the margins of the lakes. Trash middens and other archaeological remnants have also been recorded. Recognizing that even the dry playa lakes in the southern part of the Great Basin were used by Indian groups, Nellis AFB initiated several studies of these micro-environments. One study involved an archaeological coordinator aiding Native American volunteer researchers (Gerald Kane, Bishop Paiute Tribe; Dorena Martineau, Paiute Indian Tribes of Utah; Calvin Meyers, Moapa Paiute Tribe; and Lalovi Miller, Moapa Paiute Tribe; Clara Belle Jim, Pahrump Paiute Tribe; and Eleanor Tom of the Cedar Band of the Paiute Indian Tribes of Utah) representing tribes affiliated with Nellis AFB and its lands. The Native American researchers conducted interviews among their own tribal members and among members of other tribes also knowledgeable of the uses of dry playa lakes (see “playas” on Figure A-5). Playa lakes in four localities were visited to review both the archaeological sites and local flora found in association.

The group found how the dry playa lakes were used:

- Plant procurement. “Indians used everything. Indians didn’t bypass anything . . . even the sagebrush. Maybe they came a long way to gather sagebrush ‘cause there’s different kinds of sagebrush . . .” (Eleanor Tom quoted in Henderson 2008:16). Stands of spinach were found at several areas, and informants noted that wild rice, cattails, and wild onions were naturally occurring edible plants around the playas.
- Game hunting and cultivation. Although the water in the playas was often shallow and murky, it was nonetheless a valuable attractant to game that Native people could hunt or could be used to irrigate small plots of cultivated or native plants.
- Encampments. Travel by Native peoples in the region typically consisted of small, family groups moving from one resource to another (Kelley and Fowler 1986), and several researchers stated that camps were often placed around the playas during the winter as the basins were warmer than the adjacent hills and mountains.
- Trail markers. Traveling family groups used the basins, including the playas, as a type of trail marker: “They had to come from Parowan along in this area there and they had to come this way to go over here to the ceremonies they had at the gap” (Eleanor Tom quoted in Henderson 2008:19).
- Homesteads. Gerald Kane, one of the researchers, visited the Owens Valley Dry Lake and found remnants of his family’s house foundations and graves near the playa where they had camped into the mid 1930s (Henderson 2008:21).
- Ceremonies and social events: “They would . . . come out and hunt, they’d play games . . . they even had horse races here, and they had gardens along dry lake beds” (Carmen Martineau quoted in Henderson 2008:20).

In sum, even though water in the dry playa lakes might be intermittent and most playa lakes failed to hold water each season, Native American groups actively used these natural resource areas to procure water and plant and animal foods, as well as sites for camps during cold winters, and for ceremonies and social events.

In some cases, the meaning of a topographic feature may be a spiritual one, such as when Goshute or others would undergo ritual ceremonies on a mountain where *Toyanumbi* (Mountain Man or Little Man of the Mountains) might come to them. Caves, rockshelters, or rock overhangs where “a petitioner might sleep in a certain cave in order to ask for a specific power” (Sucec 2007:87) can also be spiritual places. In Wendover Auxiliary Area, Snoopy’s Rockshelter, with its rock art, is considered such a place, and the Goshute have expressed interest

in having title to it transferred to them. Islands within ancient Lake Bonneville that are today part of the UTTR may have significance to Goshute and Shoshone as their origin accounts say their first ancestors were created on an island surrounded by a large lake (Sucec 2007:151). There are also legends associated with springs, lakes, and streams (see Steward 1938; Sucec 2007 among others). Caves in Thirsty Canyon on the NTTR have been found to contain ritual sticks, basketry, ceramics, and pendants, and one has rock art, indicating that these also represent topographic places with special meaning (Grant and Wenzlau 2008). Larry Eddy (quoted in Carroll and Stoffle 2004:98), a recognized Chemehuevi Paiute spiritual leader, said of caves:

I think the cave is the eye, the main focus or the main point of the mountain. It's the mouth, you go there to acquire the gift of what the whole mountain is going to give you, what wants to give you. It's like the whole mountain; the feelings and the life of the mountain come out of that little cave right there. If you believe this mountain has a life or spirit, it will talk to you; if you believe that honestly, it will talk to you [Stoffle et al. 2000:6].

Caves and rockshelters were also used as shelter. Although these caves may or may not be imbued with spiritual qualities, they too can have meaning and significance. Such topographic features can be ones of nostalgia and personal attachment such as campsites in meadows where people from the west would meet people from the east (Kane 2009). Memories of places where shelter was provided during inclement weather can be fond ones as with those where games were played and stories retold during winter or summer encampments. Owens Valley Dry Lake where Gerald Kane's ancestors lived and where today that occupation is represented by archaeological materials and nearby graves is another example. In sum, topographic features represent another type of natural resource that can be of traditional, customary, or religious importance to the Indian tribes affiliated with the military lands in the Great Basin.

## **CHAPTER 4**

### **SUMMARY**

The Great Basin is a vast desert with inwardly draining basins with remnants of Ice Age lakes surrounded by north–south-trending mountains. As a high desert, with basins mostly at around 4,000 feet in elevation, temperatures can be quite cold during winters when most of its annual precipitation arrives in the form of snowfall and rain. Limited rain falls in the hot summers, making summer temperatures in the basins quite high.

Early Europeans found most of the basin stark and barren, their beliefs largely stemming from Euroamerican-established biases for well-watered, deep soils conducive to crop production and pasture for cattle. In reality, the Great Basin is host to a variety of flora and fauna that have been effectively exploited by indigenous people for 10,000 years. The Native people who occupied the region chose a mobile lifestyle, living in small winter villages and moving as small families during other seasons of the year. Familiar with the variety and richness of various local ecotones, they successfully employed the natural resources within the basin to carry out daily lives, feed them, provide for their spiritual and medicinal needs, raise children, make clothing, build shelters, craft tools, play games, and travel freely.

Some of these resources are important to the tribes affiliated with the military lands in the Great Basin. Similarly, other natural resources found on the 32 million acres under DoD management in the United States are of importance to other federally recognized tribes. However, at present, there are no consistent, effective guidelines for identification of such resources. Information from tribal members and land managers at Nellis AFB and Hill AFB regarding the processes they have employed to identify, evaluate, and manage such resources were used to develop a “best practices” manual for accomplishing such identification of important resources elsewhere on military lands. This appendix presents a brief overview of the environment of the region where Hill and Nellis are located and American Indian uses of that environment. The overview is provided to underscore the broad context of tribal concerns about natural resources.



## REFERENCES CITED

Arkush, B. S.

- 1999 Numic Pronghorn Exploitation: A Reassessment of Stewardian-Derived Models of Big-Game Hunting in the Great Basin. In *Julian Steward and the Great Basin: The Making of an Anthropologist*, edited by R. O. Clemmer, L. D. Myers, and M. E. Rudden, pp. 35–52. University of Utah Press, Salt Lake City.

Bye, Robert A., Jr.

- 1972 Ethnobotany of the Southern Paiute Indians in the 1870's with a Note on the Early Ethnobotanical Contributions of Dr. Edward Palmer. In *Great Basin Cultural Ecology: A Symposium*, edited by Don. D Fowler, 87-104. Desert Research Institute.

Carroll, A. K., and R. W. Stoffle

- 2004 *Ancient Voices, Storied Places: New Essays in Contemporary Indian History*. The Bureau of Applied Research in Anthropology, University of Arizona, Tucson.

Castetter, Edward F.

- 1935 *Uncultivated Native Plants Used as Sources of Food*. The University of New Mexico Bulletin Biological Series Vol. 4, No. 1. The University of New Mexico Press, Albuquerque.

Chamberlin, Ralph V.

- 1911 *The Ethnobotany of the Gosiute Indians of Utah*. American Anthropological Association Memoirs 2:329-405.

Clemmer, R. O., L. D. Myers, and M. E. Rudden (editors)

- 1999 *Julian Steward and the Great Basin: The Making of an Anthropologist*. The University of Utah Press, Salt Lake City.

Coville, Frederick Vernon

- 1892 Panamint Indians of California. *American Anthropologist* 5:351-361.

D'Azevedo, W. D.

- 1986 Introduction. In *Great Basin*, edited by W. D. D'Azevedo, pp. 1–14. Handbook of North American Indians, vol. 11, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Egan, Howard R.

- 1917 *Pioneering the West 1846 to 1878*. Skeleton Publishing Company, SLC, UT.

Fenneman, N.

- 1931 *Physiography of Western United States*. McGraw-Hill, New York.

Fowler, C. S.

- 1986 Subsistence. In *Great Basin*, edited by W. D. D'Azevedo, pp. 64–97. Handbook of North American Indians, vol. 11, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Fowler, C. S., and L. E. Dawson

- 1986 Ethnographic Basketry. In *Great Basin*, edited by W. D. D'Azevedo, pp. 705–737. Handbook of North American Indians, vol. 11, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Grant, Marcus

- 2007 Seed Basket Alcove (26NY12505): An Ethnographic Period Seed Cache in Southern Nevada. In *In Situ: Newsletter of the Nevada Archaeological Association*.

Grant, M. P. and S. Wenzlau

- 2008 *Assessing the Relationship between Vegetation Zones and Archaeology on the Nevada Test and Training Range*. Miscellaneous Reports of Investigations Number 419, Geo-Marine Inc., Plano, Texas.

Harper, K. T.

- 1986 Historical Environments. In *Great Basin*, edited by W. D. D'Azevedo, pp. 51–63. Handbook of North American Indians, vol. 11, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Henderson, T.

- 2008 *The Nellis Air Force Base Native American Dry Lakes Study*. Nellis Air Force Base, and Prewitt and Associates, Inc., Austin.

Janetski, J. C., and G. C. Smith

- 2007 *Hunter-Gatherer Archaeology in Utah Valley*. Occasional Paper No. 12. Museum of Peoples and Cultures, Brigham Young University, Salt Lake City.

Jennings, Jesse D.

- 1964 The Desert West. In *Prehistoric man in the New World*, edited by Jesse D. Jennings and Edward Norbeck pp. 149-174. University of Chicago Press, Chicago.

Kane, G.

- 2009 Personal communication. Las Vegas, Nevada.

- Kelly, Isabell T.  
1964 *Southern Paiute Ethnography*. Anthropological Papers No. 69. University of Utah Press, Salt Lake City.
- Kelly, I. T., and C. S. Fowler  
1986 Southern Paiute. In *Great Basin*, edited by W. D. D'Azevedo, pp. 368–397. Handbook of North American Indians, vol. 11, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.
- Kitchen, L.  
2007 *Draft Environmental Assessment, Integrated Natural Resources Management Plan for Nellis Air Force Base and the Nevada Test and Training Center*. Manuscript on file, Nellis Air Force Base, Las Vegas.
- Liljeblad, Sven, and Catherine S. Fowler  
1986 Owens Valley Paiute. In *Great Basin*, edited by W. L. d'Azevedo, pp. 412-434. Handbook of North American Indians, vol. 11, W. C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- McMahon, J. A. (editor)  
1997 *Deserts: a Comprehensive Guide*. Ninth Printing. Alfred Knopf, New York.
- Musil, R. R.  
1995 *Adaptive Transitions and Environmental Change in the Northern Great Basin: A View from Diamond Swamp*. Anthropological Papers 51. University of Oregon, Eugene.
- Palmer, Edward  
1878 Plants used by the Indians of the United States. *American Naturalist* 12:593-606
- Roe, F. G.  
1951 *The North American Buffalo: A Critical Study of the Species in Its Wild State*. University of Toronto Press, Toronto.
- Steward, J. H.  
1933 Ethnography of the Owens Valley Paiute. *University of California Publications in American Archaeology and Ethnology* 33:233-350.  
1938 *Basin-Plateau Aboriginal Sociopolitical Groups*. Bulletin 38. Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.  
1941 Culture Element Distributions. XIII. Nevada Shoshoni. *University of California Anthropological Records* 4(2):209-59.
- Stoffle, R. W., M. J. Evans, D. B. Halmo, W. E. Niles, and J. T. O'Farrell.  
1989 *Native American Plant Resources in the Yucca Mountain Area, Nevada*. Report DOE/NV-10576-19. Las Vegas, Nev.: U.S. Department of Energy, Nevada Operations Office.

- Stoffle, R. W., N. Zedeño, J. Eyrich, P. Barabe  
2000 *The Wellington Canyon Ethnographic Study at Pintwater Range, Nellis Air Force Base, Nevada*. Report prepared for U. S. Air Force and SAIC. Bureau of Applied Research in Anthropology, University of Arizona, Tuscon.
- Stoffle, R. W., M. N. Zedeño, and D. B. Halmo (editors)  
2001 *American Indians and the Nevada Test Site: A Model of Research and Consultation*. U. S. Government Printing Office, Washington D.C.
- Sucec, R.  
2007 *Still Ancestral Homeland, an Ethnographic Overview and Assessment of American Indian Histories and Resource Uses Associated with Hill Air Force Base, Utah*. Hill Air Force Base and National Park Service, Layton, Utah.
- Thomas, D. H., L. S. A. Pendleton, and S. C. Cappannari  
1986 Western Shoshone. In *Great Basin*, edited by W. D. D'Azevedo, pp. 262–283. *Handbook of North American Indians*, vol. 11, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.
- Wingard, G. F.  
2001 *Carlson Village Land, Water, Subsistence, and Sedentism in the Northern Great Basin*. Anthropological Papers 57. University of Oregon, Eugene.
- Wormington, H. M.  
1957 *Ancient Man in North America*. 4<sup>th</sup> ed. Popular Series No. 4. Denver Museum of Natural History, Denver.
- Zedeño, M. N., and K. Hamm  
2001 The Ethnobiology of Pahute and Rainier Mesas. In *American Indians and the Nevada Test Site: A Model of Research and Consultation*, edited by R. W. Stoffle, M. N. Zedeño, and D. B. Halmo, pp. 98–121. U. S. Government Printing Office, Washington D.C.
- Zigmond, M. L.  
1941 *Kawaiisu Ethnobotany*. University of Utah Press, Salt Lake City.



## **APPENDIX B**

### **SUMMARY OF CULTURAL RESOURCES STATUTES, REGULATIONS, EXECUTIVE ORDERS, AND DOD POLICIES**



## STATUTES AND REGULATIONS

Statutes and regulations that pertain to the management of cultural resources on DoD installations that are relevant to identification of natural resources important to Tribes are listed and briefly described or referenced below. Some of these (such as the Abandoned Shipwreck Act of 1987 [43 United States Code (U.S.C.) 2101–2106]) apply only to a small number of installations. Statutes and regulations that have their full text on the World Wide Web are highlighted in blue.

### Statutes

#### ***Abandoned Shipwreck Act of 1987 (U.S.C. 2101-2106)***

Protects from salvage abandoned shipwrecks found in submerged lands of States or on or in public lands of the United States. Largely enacted to protect historic shipwrecks, it can also be applied to Native American vessels found on these lands.

#### ***American Indian Religious Freedom Act (AIRFA) (U.S.C. 1996–1996a)***

Confirms American Indians' right of freedom to believe, express, and exercise their traditional religions, including but not limited to access to religious and sacred sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.

#### ***Antiquities Act of 1906 (U.S.C. 431–433; 34 Statute [Stat.] 225)***

Provides protection for archaeological resources. The first general act of its kind, it protects all historic and prehistoric sites on federal lands and prohibits excavation or destruction of such antiquities without the permission (an antiquities permit) of the Secretary of the department that has jurisdiction over those lands. It also authorizes the President to declare areas of public lands as national monuments and to reserve or accept private lands for that purpose.

#### ***Archaeological and Historic Preservation Act (AHPA) of 1974 (16 U.S.C. 469–469c)***

Provides for the preservation of historical and archaeological data (including relics and specimens) that might otherwise be lost as the result of the construction of a dam or any alteration of the terrain resulting from federal construction project or federally licensed activity or program.

#### ***Archeological Resources Protection Act (ARPA) of 1979 (16 U.S.C. 470aa–470mm)***

Secures the protection of archaeological resources and sites that are on public lands and Indian lands, and fosters increased cooperation and exchange of information between governmental authorities, the professional archeological community, and private individuals having collections of archaeological resources and data that were obtained before the date of the enactment of this act. It also requires federal agencies to notify tribes of permits issued for excavations on such

lands if the tribe(s) consider the site to be of religious or cultural importance. ARPA also provides that Federal land managers shall establish programs to increase public awareness of the significance of the archaeological resources located on public lands and Indian lands and the need to protect such resources. These outreach activities typically are specified in ICRMPs/INRMPs and may involve tribal consultation and participation.

***Historic Sites Act of 1935 (16 U.S.C. 461–467)***

Declares that it is a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States.

***National Environmental Policy Act (NEPA) (42 U.S.C. 4321–4370c)***

Compels federal agencies to make informed decisions by requiring consideration of all relevant environmental consequences of any proposed action. Congress, through NEPA, declared a national policy to encourage productive and enjoyable harmony between Americans and their environment. The Federal government is to use all practicable means to preserve important historic, cultural, and natural aspects of our national heritage, and to maintain an environment supporting diversity. It also requires involving the public, including affected Indian tribes, in the decision-making process. NEPA requires that cultural, historical, and natural values are considered in all final decisions.

***National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. 470–470w)***

Allows for the expansion and maintenance of a National Register of Historic Places (Section 101), and requires all federal agencies to take into account the effects of their actions on the nation's historic properties (Section 106). Section 110 of NHPA is particularly important for military installations because it addresses that each Federal agency must (1) assume responsibility for the preservation of historic properties owned or controlled by the agency, and (2) establish a program for the identification, evaluation, and nomination of historic properties to the NRHP, and the protection of its historic properties. Notes that the historical and cultural foundations of the country should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people. Requires consultation with Federally-recognized Tribes.

***Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 U.S.C. 3001–3013)***

Provides a process for federal agencies or agencies receiving federal funds to determine custody, protection, and repatriation of Native American human remains, associated and unassociated funerary objects, sacred objects, and objects of cultural patrimony.

***Religious Freedom Restoration Act (RFRA) (42 U.S.C 2000bb)***

Confirms the right to freedom of religion set forth in the First Amendment to the Constitution. Provides a defense to persons whose religious exercise is substantially burdened by any branch of government.

***Sikes Act (16 U.S.C. 670a–670o, 74 Stat. 1052)***

Provides for cooperation by the Departments of the Interior and Defense with state agencies in planning, development, and maintenance of fish and wildlife resources on military reservations throughout the United States.

***Sikes Act Improvement Amendment–1998***

Legislates that military installations will develop and implement integrated natural resources management plans (INRMPs) and that military departments may enter into cooperative agreements (CAs) with states, local governments, nongovernmental organizations, and individuals to provide for the maintenance and improvement of natural resources, or to benefit natural and historical research, on installations.

The Sikes Act authorizes natural and cultural resources programs to enter into special “cooperative agreements” with nonfederal entities to accomplish work on installations.

**Executive Orders**

***Executive Order (EO) 11593—Protection and Enhancement of the Cultural Environment***

Requires agencies of the executive branch of the government to administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations; to initiate measures that will facilitate the preservation, restoration, and maintenance of federally owned sites, structures, and objects of historical, architectural, or archeological significance; and in consultation with the Advisory Council on Historic Preservation, to institute procedures to assure that federal plans and programs contribute to the preservation and enhancement of nonfederally owned sites, structures, and objects of historical, architectural, or archaeological significance.

***EO 12512—Federal Real Property Management***

Ensures that federal real property resources, including heritage assets, are treated in accordance with their value as national assets and in the best interests of the nation’s taxpayers. Provides for consistent federal policies regarding the acquisition, management, and disposal of properties. Requires all executive departments and agencies to develop internal policies regarding effective use of real property and annual real property management improvement plans.

***EO 12898—Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations***

Requires federal agencies to include environmental justice as part of their mission to address disproportionately high and adverse health and environmental effects of their programs, policies, and activities on minority populations and low-income populations.

***EO 13007—Indian Sacred Sites***

Requires federal land managing agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners to the extent practical within the agency's mission. It also requires such agencies to avoid adversely affecting the physical integrity of sacred sites where practicable.

***EO 13175—Consultation and Coordination with Indian Tribal Governments***

Revoked EO 13084 (which carried the same title) but continues to reaffirm the unique legal relationship between the United States and Indian tribal governments. It stresses that federal agencies maintain regular and meaningful collaboration with Indian tribal governments when formulating policies that would affect Tribal governments, being guided by the principle of respect for their self-government, treaty rights, and sovereignty. The EO also requires federal agencies to have “meaningful and timely” consultation with tribal officials and to consider costs that may be imposed on tribes to comply with regulations that the agencies develop.

***EO 13287—Preserve America***

EO 13287 provides for opportunities where tribes may cooperatively partner with Federal agencies to promote local economic development and vitality through the use of historic properties in a manner contributing to the long-term preservation and productive use of those properties.

**Presidential Memoranda**

***Government-to-Government Relations with Native American Tribal Governments***

Emphasizes the unique legal relationship between the United States government and Native American tribal governments. Executive departments and agencies are given principles that will enable them to conduct their activities in a manner that is respectful of the sovereignty of tribal governments.

## **FEDERAL REGULATIONS AND GUIDANCE**

To search for federal regulations online, visit <http://www.gpoaccess.gov/cfr/index.html>.

### ***Advisory Council on Historic Preservation (ACHP), Protection of Historic Properties, 36 Code of Federal Regulations (CFR) 800***

Outlines how federal agencies carry out their consultation responsibilities under Section 106 of the National Historic Preservation Act. It defines the roles of the Advisory Council on Historic Preservation, the state historic preservation officer, the tribal historic preservation officer, and other consulting parties.

### ***Council on Environmental Quality, Regulations Implementing the National Environmental Policy Act, 40 CFR 1500–1508***

Provides regulations applicable to and binding on all federal agencies for implementing the procedural provisions of the National Environmental Policy Act of 1969, as amended (Public Law [P.L.] 91-190, 42 U.S.C. 4321 et seq.) except where compliance would be inconsistent with other statutory requirements.

### ***Department of the Interior, Curation of Federally Owned and Administered Archaeological Collections, 36 CFR 79***

Establishes definitions, standards, procedures, and guidelines to be followed by federal agencies to preserve collections of prehistoric and historic material remains, and associated records, recovered under the authority of the Antiquities Act (16 U.S.C. 431–433), the Reservoir Salvage Act (16 U.S.C. 469–469c-2), the National Historic Preservation Act (16 U.S.C. 470h-2), or the Archaeological Resources Protection Act (16 U.S.C. 470aa–mm).

### ***Department of the Interior, Determinations of Eligibility for Inclusion in the National Register of Historic Places, 36 CFR 63***

Assists federal agencies in identifying and evaluating the eligibility of properties for inclusion in the National Register.

### ***Department of the Interior, National Historic Landmark Program, 36 CFR 65***

Facilitates identification and designation of National Historic Landmarks, and encourages the long-range preservation of nationally significant properties that illustrate or commemorate the history and prehistory of the United States. Sand Creek Massacre National Historic Site, important to the Cheyenne and Arapahoe Indians, is one such site. These regulations set forth the criteria for establishing national significance and the procedures used by the Department of the Interior for conducting the National Historic Landmark Program.

***Department of the Interior, National Register of Historic Places, 36 CFR 60***

Sets forth the procedural requirements for listing properties on the National Register and authorizes the Secretary of the Interior to expand and maintain a National Register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture. Natural resources of importance to Indian tribes can be determined eligible for, or listed on, the National Register.

***Department of the Interior, Preservation of American Antiquities, 43 CFR 3***

Places responsibility for ruins, archeological sites, historic and prehistoric monuments and structures, objects of antiquity, historic landmarks, and other objects of historic and scientific interest on the Secretaries of Agriculture, Army, and Interior on federal lands that fall under their respective jurisdictions. Sets forth the types of permits that may be granted, to whom, and restrictions and requirements for authorized organizations who have obtained a permit for the examination of ruins, the excavation of archaeological sites, and the gathering of objects of antiquity.

***Department of the Interior, Supplemental Regulations [per ARPA], 43 CFR 7***

Implements Department of the Interior provisions of ARPA of 1979, as amended (16 U.S.C. 470aa–mm) by establishing the uniform definitions, standards, and procedures to be followed by all federal land managers in providing protection for archaeological resources located on public lands and Indian lands of the United States.

***Department of the Interior, Waiver of Federal Agency Responsibility under Section 110 of the National Historic Preservation Act, 36 CFR 78***

Authorizes the Secretary of the Interior to promulgate regulations under which the requirements in Section 110 may be waived in whole or in part in the event of a major natural disaster or an imminent threat to the national security.

***Department of the Interior, the Secretary of the Interior's Standards for the Treatment of Historic Properties, 36 CFR 68***

Provides guidelines for the treatment of historic properties that include standards for preservation, rehabilitation, restoration, and reconstruction projects.



## **MILITARY REGULATIONS AND GUIDANCE**

### ***Department of Defense, Protection of Archaeological Resources, 32 CFR 229***

Implements Department of Defense (DoD) provisions of ARPA of 1979, as amended (16 U.S.C. 470aa–mm) by establishing the uniform definitions, standards, and procedures to be followed by all federal land managers in providing protection for archeological resources located on public lands and Indian lands of the United States.

### ***Department of Defense Instruction, DoD Interactions with Federally-Recognized Tribes, Number 4710.2 (14 September 2006)***

Establishes DoD principles for interaction with American Indian and Alaskan Native governments (tribes). Four main areas of concern are addressed: the trust responsibilities of the DoD (and specific federal statutes and policies that govern such responsibilities); how to conduct meaningful, long-lasting government-to-government relations and consultation; and consideration of natural and cultural resources significant to Tribes.

### ***Air Force Instruction 32-7065—Cultural Resource Management Program (1 June 2004)***

Provides detailed instructions on roles and responsibilities for the identification and management of cultural resources on property affected by Air Force actions. The instruction requires consultation with federally-recognized tribes that have historical ties with the installation or are affected by the installation. It further requires that efforts be taken to “identify, evaluate, and treat historic properties that have religious and cultural importance” to tribes.

### ***Army Regulation 200-1—Environmental Protection and Enhancement (13 December 2007)***

Provides roles and responsibilities for all aspects of the environment, including cultural resources. One program requirement is to establish government-to-government consultation with Federally-recognized Indian tribes, and if a property of religious or cultural significance will be affected by the installation’s actions, that consultation must be initiated. Programs and projects that may affect properties of significance to tribes must be considered during planning. AR 200-1 delineates the cultural and natural resources management responsibilities at each level of command and prescribes steps for identification, evaluation, and nomination of historic properties for listing in the National Register as mandated by NHPA and EO 11593. The regulation also addresses Army compliance procedures with regard to the following: NHPA; NAGPRA; AIRFA; ARPA; the curation of archaeological collections; consulting with Indian tribes; the preparation of PAs, MOAs, and NAGPRA CAs and plans of action; and, the preparation of ICRMPs and INRMPs.

***MCO P5090.2A—Chapter 8, Cultural Resource Management (10 July 1998)***

Establishes responsibilities for cultural resources under the control of the Marine Corps. It defines cultural resources as a generic term that, among other things, includes “resources of interest to Native American tribes or Native Hawaiian organizations.” It requires inventory of resources of traditional, cultural, or religious significance to Native American tribes or Native Hawaiian organizations and requires that these inventories be undertaken in consultation with those organizations and tribes.

***Secretary of the Navy Instruction 4000.35A—Department of the Navy Cultural Resources Program (9 April 2001)***

Assigns and defines the roles and responsibilities for cultural resources under the custody of or management of Navy installations. Cultural resources are defined as those eligible for or listed in the National Register or “American Indian, Eskimo, Aleut, or Native Hawaiian sacred sites for which access is protected” under AIRFA. The instruction requires consultation with native groups when Navy undertakings may affect National Register properties whether or not they are on Navy property.

## **APPENDIX C**

### **PROCEDURES FOR NATIVE AMERICAN CONSULTATION AT FORT BLISS, TEXAS**

(Reprinted from *Fort Bliss Integrated Cultural Resource Management Plan 2008–2012*, with  
permission of Environmental Division, Fort Bliss)



## **4.3 Standard Operating Procedure #18: Native American Consultation under the National Historic Preservation Act**

### **4.3.1 Applicability**

This SOP applies to all organizations, property and activities under the control of the Department of the Army and located within the boundaries of Fort Bliss or other contiguous land under Fort Bliss control. It also includes activities undertaken on behalf of the Army or with consent of the Army, or as a result of consent of the Army by contract, lease or inter-service support agreement or other instrument to which Fort Bliss, the United States Army, or the Department of Defense is a party, within Fort Bliss or other contiguous land under Fort Bliss control.

### **4.3.2 Objective**

Consultation is communication that emphasizes trust and respect. It is a shared responsibility that allows an open and free exchange of information and opinion among parties that leads to mutual understanding and comprehension. Consultation is integral to a process of mutually satisfying deliberations to result in collaboration and joint decision making. The objective of this Standard Operating Procedure is to establish how consultation between Fort Bliss and appropriate Native American Tribes may occur in meeting consultation requirements under the National Historic Preservation Act. Consultation specific to NAGPRA will be conducted as outlined in SOP #17: Compliance with the Native American Graves Protection and Repatriation Act of 1990.

### **4.3.3 Policy**

It is Fort Bliss policy to initiate consultation and meaningful Tribal participation at any time throughout the projects' process. Fort Bliss offers of Tribal consultation and participation will be triggered by relevant and significant events, such as discoveries of cultural phenomena, or initiation of projects/processes that have a potential to affect cultural phenomena. Fort Bliss and each Tribe, according to their internal procedures and protocols, will designate Government-to-Government representatives for consultation purposes. It is desirable to have consultation occur at appropriate staff levels. Signatories to agreements between the parties will be high-level representative officials from each organization.

The following provide the foundation upon which all Native American consultation will take place:

- Respect the sovereign status of each Native American Tribal government. Fort Bliss must work directly with Federally recognized Tribes on a government-to-government basis, recognizing the sovereignty of each Tribe. First contact should be made with the Tribal leadership.
- At a minimum, the Indian Tribes with whom consultation should occur are those groups that have Tribal or trust lands in proximity to Fort Bliss, those Tribes that occupied the area of Fort Bliss in aboriginal times, those Tribes or groups with which Fort Bliss has

previously held consultation proceedings, and those Tribes or groups that identify themselves as having interests on lands managed by Fort Bliss.

- An attempt should be made to identify any non-Federally recognized Native American groups that may eventually be brought into consultation as interested parties under certain Federal laws and regulations.
- Notification to Tribal representatives should be made in letter form signed by the Garrison Commander to the head of the Tribal government, followed immediately by a confirming telephone call. Written notification should be sent by certified mail or similar device that offers receipt of delivery to the address.
- The consultation timetable should be developed to allow for the greatest opportunity possible for appropriate Tribal representatives and others to participate in consultation.
- The Garrison Commander should request information concerning Tribal-developed regulations, ordinances, resolutions, and protocols for handling issues covered under specific Federal cultural resources legislation when first establishing a consultation relationship.
- Consultation should identify, as early as possible, all potential issues that may result from a particular procedure or activity, so that resulting consultation meetings will not address these issues in a piecemeal fashion.
- For procedural and planning decisions, consultation should be designed to result in mutually acceptable terms for avoiding or minimizing affects on Native American human remains or cultural resources. Agreement upon mutually acceptable revisions to plans or procedures that take into consideration Tribal concerns may be all that is necessary.
- For proposed construction or land use activities, intentional excavations may be planned to determine whether any Native American cultural resources are present. The scope and procedures used for intentional excavations should be developed in consultation with all interested parties as outlined in the —Programmatic Agreement among the Fort Bliss Garrison Command and the New Mexico State Historic Preservation Officer and the Texas State Historic Preservation Officer and the Advisory Council on Historic Preservation for the Management of Historic Properties on Fort Bliss, Fort Bliss, Texas, under Sections 106 and 110 of the National Historic Preservation Act of 1966 (as amended).
- If a Tribe, or Tribal representative, does not respond in the requested time frame, follow-up notification should be made and alternative methods of consultation should be considered.
- Any Tribe may request to enter into consultation with Fort Bliss Garrison Commander to develop a Memorandum of Agreement on how consultation will be conducted between the Installation and the requesting Tribe.

#### **4.3.4 Implementing Procedures**

The following procedures provide the general guidelines for consultation and identify issues to consider.

- The Garrison Commander should develop procedures for consultation that take into consideration issues specific to the installation and to the Tribe with whom consultation will occur. Before consultation with Tribes can begin, the following should be identified:
  - the appropriate groups and representatives who should be invited to consult
  - relevant Tribal protocols, procedures, regulations, and cultural etiquette
  - the activities or issues requiring consultation
  - the specific laws and regulations that mandate consultation, and the specific laws and regulations that encourage consultation
- Regardless of the specific legal mandate that prompts consultation, the general form of consultation should include the following components:
  - identification of the appropriate consulting parties to achieve a government-to-government relationship;
  - procedures for notifying the consulting parties;
  - the consultation schedule, process, and content;
  - resolution of consultation issue(s);
  - dispute resolution; and
  - final actions.
- The schedule for consultation should be developed mutually by Fort Bliss and Tribal representatives taking into consideration a variety of matters:
  - the complexity of the consultation issues;
  - Fort Bliss and Tribal schedule and fiscal constraints;
  - Fort Bliss and Tribal standing operating procedures and protocols; and
  - Statutory requirements.

#### **Properties of Traditional, Cultural and Religious Importance**

Native American traditional cultural properties may include places where culturally important plants and animals are harvested. The gathering of such resources by traditional Native Americans usually has religious connotations. The hunting and gathering location is not necessarily the site of specific ritual activities. This does not detract from its cultural significance however, as the area and its resources may be absolutely vital to the continuing cultural integrity of a community. DoDI 4715.3 provides that —Native Americans shall have access to DoD sites and resources that are of religious importance, or that are important to the continuance of their cultures, consistent with the military mission, appropriate laws (42 USC 1996, reference (f)), and regulations, and subject to the same safety, security and resources consideration as the general public.‖ Archaeological evidence indicates that lands managed by Fort Bliss have been the site of aboriginal settlement and hunting and gathering activities continuously throughout the past

10,000 years. Discussions between the Fort Bliss CRM staff and the Mescalero Apache and the Ysleta del Sur Pueblo have not yet established that properties of traditional, cultural or religious importance exists on lands managed by Fort Bliss. Discussion with other Tribes that potentially have an interest in Fort Bliss lands has not been initiated.

The lack of identified properties of traditional, cultural or religious importance on Fort Bliss is not definitive. A dialogue to identify these properties should be pursued further.

### **Public Disclosure and Confidentiality**

Tribes may be reluctant, unwilling or even unable to provide information on sacred site locations or specific aspects of religious ceremonies or cultural traditions. If Tribal representatives express concern about disclosure issues, the Installation Commander or consultation representative shall discuss these issues at the beginning of the consultation process with Tribal representatives and with the Staff Judge Advocate in order to develop a means of protecting information that must be kept in confidence. During consultation, the Installation Commander or consultation representative should not request more information than is needed to discuss and resolve consultation issues. The Freedom of Information Act provides any person the right to access agency records, except to the extent that they are protected from disclosure by one of nine exemptions or by one of three special law enforcement record exclusions. The National Historic Preservation Act [16 USC 470w3] provides for the withholding of information about the location, character, or ownership of a district, site, building, structure, or object eligible for inclusion in the National Register of Historic Places. The Archeological Resources Protection Act [16USC 470] prevents the disclosure of information on the nature and location of archaeological resources that require a Federal permit for excavation or removal. Archaeological sites, traditional cultural properties, and sacred sites shall be protected from illegal entry or disturbance in accordance with DoD Directive 4165.61 and 36 CFR 79 (references (g) and (z)).



## **APPENDIX D**

### **USEFUL PROTOCOLS FROM FEDERAL HIGHWAY ADMINISTRATION/PENNSYLVANIA DEPARTMENT OF TRANSPORTATION**

(Reprinted by permission from Appendix C of *Proceedings of the FHWA Pennsylvania Intertribal Summit* [FHWA 2004:51-52] and from Stapp and Burney 2002)



A summit meeting is, without a doubt, a diplomatic undertaking between sovereign nations. Respectful diplomacy demands protocol. These are just some of the protocols we learned about in the course of the Pennsylvania Summit. The best source of advice on acceptable protocols is obviously the attending tribes, and like any society or culture, different tribes may have very different customs and protocols. Don't be afraid to broach the subject of proper protocols and etiquette with a tribal representative. They're usually more than happy to tell you what you need to know to avoid awkward or embarrassing moments. Please note that, while some of these protocols are unique to specific Native American tribes, some of these are simply points of respectful behavior.

Among most of the tribes we consult with:

- The eldest member, or eldest chief or leader, should be invited to offer a benediction at the beginning and end of the summit.
- Chiefs should be addressed as the ranking official of the Nation, much like the President of the United States.
- A formal introduction of a Chief to the Division Administrator, Transportation Secretary, and/or the Governor is important.
- When hosting a buffet meal (like our potluck), the eldest tribal members should be invited to eat first.
- Photography may require permission of the subject, and is inappropriate during prayers.
- The hosts should provide commemorative gifts to their visitors that are symbolic of the collaborative relationship between nations.
- Speakers stand. The speaker holds the floor until he/she sits down. There may be silence after someone has spoken, and it should not be regarded as an opportunity to "blurt something out". Such silence is simply a sign of respect among some tribes, a moment's pause to allow a speaker's words to "sink in" and to be sure he or she is done speaking.
- Don't interrupt conversations. Be respectful of speakers. The kind of forceful, blunt and direct commentary that is common in agency meetings can be viewed as pushy and overbearing in a diplomatic setting like a summit. Use respectful and polite language when expressing opinions, asking questions, or requesting something.

Darby Stapp and Michael Burney (2002:136-137, 144-150) offer a few other useful tips for consultation protocols. We provide a slightly edited version of several:

- Introduce your perception of how the consultation process should be conducted.
- Solicit tribal recommendations on how they believe the consultation process should be conducted.
- A vital ingredient necessary to consultation success is supporting (i.e., funding for travel, per diem, consultant's fee, etc.) the tribe's participation in the consultation and incorporating its concerns, recommendations, and solutions to meet tribal and nontribal needs.
- Include tribes in initial planning stages of projects or programs.
- Try to visit with the tribes at their offices.



**APPENDIX E**

**NATIVE AMERICAN RESOLUTION FOR THE NEVADA  
NUCLEAR WASTE STORAGE INVESTIGATION**

(reprinted from Stoffle et al. 1990:170-174)



## **Resolution**

The 16 Native American tribes involved in the Nevada Nuclear Waste Storage Investigations (NNWSI) project (currently referred to as the Yucca Mountain Project) strongly oppose the placement of a high-level radioactive waste disposal facility in the Yucca Mountain site due to the fact that the site is within the ancestral territories of certain Native American tribes or organizations, and due to possible hazardous ramifications such a facility may pose to the health and welfare of all people through contamination by any means.

## **Recommendations**

In the interest of cultural preservation, we recommend the following actions. These recommendations do not in any way limit past, present, or future claims by any of the 16 involved tribes on any lands in the central or southern Nevada area, or past, present, or future claims on cultural resources that are located on these lands.

### **Recommendations on Native American artifacts (ranked in order of preference):**

1. Leave the artifacts in place. Any site characterization activity that is located in an area which contains artifacts or an activity that uncovers artifacts by accident should be moved to another location.
2. Any artifacts that have been removed by archaeologists or others should be placed in a museum built and funded by the DOE, and operated by Native American people. Possible locations for this new museum include Death Valley, Ash Meadows, and Las Vegas.

### **Recommendations on Native American plants (ranked in order of preference):**

1. Plant species identified as important to Native American cultures and religions should be avoided and/or protected from all site characterization activities.
2. In the event that a particular stand of any plant identified as important to Native Americans cannot be avoided or protected, then a similar stand of the same species located somewhere else should be preserved. Native American people should be granted access to this area at any time they choose.
3. If a similar stand of plants cannot be found, then the plant species should be transplanted to a similar environmental habitat, with adequate funding and study to insure that the plant species transplanted survives in the new location.

### **Recommendations for petroglyphs and pictographs:**

Petroglyphs and pictographs have been discovered in several different locations in the cultural resources study area. Due to the relatively immovable nature of petroglyphs and pictographs, they, *along with the area in which they are located*, should be avoided and made off-limits to all Yucca Mountain Project personnel. When appropriate, these areas should be documented for inclusion in the National Register of Historic Places.

**Recommendations for Native American burials:**

1. Native Americans own all burials of Indian people. Because it is the right and duty of Native American people to make any decision concerning an Indian buria, the 16 involved tribes should be notified immediately and all work stopped upon the discovery of any burials during site characterization activities. The 16 involved tribes strongly recommend that any burial found during site characterization be left completely undisturbed. Any site characterization activity at the location should be moved somewhere else.
2. If the 16 involved tribes decide that a known burial cannot be protected from vandalism or destruction, then the tribes will select a mutually suitable burial location for the reburial of the remains.

**Recommendations about animals:**

All site characterization activities should be kept away from known animal habitats. In the event that new animal habitats are discovered during site characterization activities, these new habitats should also be made off limits to site characterization activity.

**Recommendations about sacred area:**

The Native American representatives who visited the cultural resources study area in 1987 identified places of religious and/or historic importance to Native American people. Since it is impossible to move a “place,” such as a spring, these sacred areas should be completely avoided. Any site characterization activity that is to occur at one of these locations should be moved to a different location.

**Recommendations about information dissemination:**

Each of the 16 involved tribes should receive copies of all archaeology reports written by the archaeology contractors who have worked, are currently working, or will work in the future, on any lands connected with the Yucca Mountain Project. These reports should include, but not be limited to, those published as public documents and those published as interim reports for the DOE.

**Recommendations about Native American consultants:**

Three Native American consultants should be hired as functional working members of all archaeology survey and/or excavations crews active on any land connected with the Yucca Mountain Project. These Native American consultants should be full-time, salaried employees, paid out of existing and future Yucca Mountain Project funds. These Native American consultants will be responsible for issuing separate reports about any activity they are involved in. These reports will be transmitted to the tribal councils of the 16 involved tribes, as well as the DOE. In order to facilitate the transmittal of these reports, an independent budget and secretarial help will be provided from existing and future Yucca Mountain Project funds.



**Recommendations about future studies:**

The 16 involved tribes recommend that due to the religious and social sensitivity of the cultural resources already identified in the Yucca Mountain region, and the short timeframe Native American people have been allowed to respond to site characterization activities, further study and discussion should be conducted concerning the Yucca Mountain Project. This study and discussion should include, but not be limited to, history, archaeology, plant studies, cultural anthropology, and socioeconomic issues pertinent to the 16 involved tribes.



**APPENDIX F**

**SUGGESTED LANGUAGE FOR INTEGRATED CULTURAL  
RESOURCE MANAGEMENT PLANS AND INTEGRATED  
NATURAL RESOURCE MANAGEMENT PLANS**



Useful wording that can be employed when revising installation ICRMPs and INRMPs is provided below. It focuses on the material that is generally contained in the first sections of the documents. Specifically, it covers the overall purpose of the cultural and natural resources programs and on the goals and objectives that are built in to the ICRMP and INRMP and how these might include elements of working with tribes to identify natural resources that are of cultural, religious, or traditional importance to them.

The wording is largely adapted from the Nellis AFB ICRMP that was approved and implemented in 2007 (U.S. Air Force 2007a). The wording is presented with the recognition that, while the formats of ICRMPs are similar, they are not identical, and the content varies from one installation to another. Thus, it is expected that the wording will differ from what is presented below. However, it is presented here to offer some ideas for CRMs and NRMs. As CRMs/NRMs may plan for tribal-related work activities or other projects at their military installation, it is important that ICRMP/INRMPs explicitly list project-specific, Fiscal Year-specific project descriptions including explanation on why the activity is legally required or supported. This is because ICRMP/INRMPs increasingly are used as documents to formally justify the funding of specific resource management and planning efforts.

#### *Installation Purpose, Mission Statement, and Applicable Laws*

The first chapter in ICRMPs and INRMPs typically deal with the broad parameters of the cultural and natural resource programs. Chapter 1 of the Nellis AFB ICRMP deals with the installation purpose, mission statement, and applicable laws. Since Nellis has an active program to identify natural resources of religious, cultural, or traditional significance to tribes, the opening paragraph identifies this program as part of the overall cultural resource program:

This revision of the NAFB Cultural Resources Management Plan continues a philosophy that balances this critical military mission, statutory compliance, Native American concerns, and the pursuit of scientific knowledge for the benefit of the American people (U.S. Air Force 2007a:1-1).

The listed authorities and laws in the ICRMP would include those provided in Appendix B of this document. It is unlikely that additional authorities and laws would need to be added to the ICRMP when revised. However, it is recommended that a small group of authorities and laws be added to an INRMP at installations initiating a program to identify natural resources of importance to tribes. Table F-1 lists those that are the most important. The purpose and description of each can be taken from the ICRMP.

#### *Organizational Roles and Responsibilities*

Roles and responsibilities for the installation are carefully detailed in these management documents for clarity. For both the CRM and the NRM it would be helpful to state that, among other responsibilities, they are charged with obtaining “information from Native Americans to assist in protection of cultural sites and landscapes” (U.S. Air Force 2007:1-5).

Table F-1  
Suggested List of Authorities and Laws to be Added as INRMPs are Revised

---

*National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. 470–470w)*  
*American Indian Religious Freedom Act (AIRFA) (42 U.S.C. 1996–1996a)*  
*EO 13007—Indian Sacred Sites*  
*EO 13175—Consultation and Coordination with Indian Tribal Governments*  
*DoD Instruction 4710.2—DoD Interactions with Federally-Recognized Tribes*  
*Air Force Instruction 32-7065—Cultural Resources Management Program (1 June 2004), if appropriate*  
*MCO [Marine Corps Order] P5090.2A—Chapter 8, Cultural Resource Management (10 July 1998), if appropriate*  
*Secretary of the Navy Instruction 4000.35A—Department of the Navy Cultural Resources Program (09 April 2001), if appropriate*

---

### *Goals and Objectives*

The goals, objectives, and priorities detail those items that the cultural and natural resources programs find to be their greatest needs. Each goal, objective, and priority has the concurrence and commitment of installation command, and each is tied to mission needs, legal compliance, and effective management of cultural or natural resources. In the Nellis AFB ICRMP, the goal of the cultural resource program is described in this manner:

The overall policy of the federal government is to identify, manage, and maintain important cultural resources in a spirit of stewardship for the benefit of current and future generations, while addressing the needs of the mission through early planning and coordination. This plan’s goal is to meet the needs of the NAFB mission while addressing legal requirements, incorporating Native American interests, and conducting archaeological and ethnographic research in a professional, ethical, and scientific manner. NAFB will encourage opportunities for increased co-stewardship of NAFB assets by Native Americans, and continue its public outreach efforts with the use of such venues as base and range visits, calendars, posters, and interpretive documents and videos (U.S. Air Force 2007a:1-9 – 1-10).

Actual wording in an installation’s ICRMP would vary according to the specific details of its program. The INRMP overall goal could include mention of efforts to increase co-stewardship of natural resources with Native Americans.

Objectives, called “requirements” in some ICRMPs, are sometimes broad, but more often indicate specific tasks or projects that are needed to meet the overall goal of the program. They can include the needed re-evaluation of structures, sites, or collections. They can also include monitoring of native grasses, erosion, or the health of newly introduced native plants or animals. Within the objectives or requirements, efforts or specific projects to encourage Native American involvement or co-stewardship of natural resources can be listed. Examples from Nellis AFB (U.S. Air Force 2007a:1) include:

- Rather than increasing sampling from 10 percent to 20 percent or more in places such as Kawich Range and Upper Pahute Mesa canyons, combine the data with examinations of aerial photography or other applicable scientific tools to more efficiently locate eligible properties for Native American visitation, research, and protection.
- Continue the Native American Program to ensure tribal members have access to ancestral sites, are encouraged to conduct research on the NTTR, and participate in environmental compliance review. The successful Native American Program, a foundation for government-to-government consultation among the Mojave, Owens Valley Paiute, Southern Paiute, and Western Shoshone, is a priority.

These objectives or requirements should be clearly tied to legal requirements. They should also dove-tail with INRMP objectives.

