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NATIVE AMERICAN SACRED PLACES

HEARING

BEFORE THE

COMMITTEE ON INDIAN AFFAIRS
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

ON

THE PROTECTION OF NATIVE AMERICAN SACRED PLACES AS THEY ARE AFFECTED BY DEPARTMENT OF DEFENSE UNDERTAKINGS

JULY 17, 2002
WASHINGTON, DC

PART 2

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NATIVE AMERICAN SACRED PLACES

WEDNESDAY, JULY 17, 2002

U.S. SENATE,
COMMITTEE ON INDIAN AFFAIRS,
Washington, DC.

The committee met, pursuant to recess, at 10:06 a.m. in room 485, Senate Russell Building, Hon. Daniel K. Inouye (chairman of the committee) presiding.

Present: Senators Inouye and Campbell.

STATEMENT OF HON. DANIEL K. INOUYE, U.S. SENATOR FROM HAWAII, CHAIRMAN, COMMITTEE ON INDIAN AFFAIRS

The CHAIRMAN. The Committee on Indian Affairs meets today for the second in a series of hearings on Native American sacred sites.

Long before Europeans landed on the shores of America, the Native people of this Nation revered and protected the lands and natural resources that they knew as their homeland. Their cathedrals had the sky as their ceilings and the mountains and the trees as their walls. The sun and the moon and all of the natural elements were respected as the manifestations of a creator who watched over all the beings of the world.

With the advent of European settlement and westward expansion, the places that Native Americans held as sacred became vulnerable to desecration and destruction. In contemporary times, the Government of the United States has slowly but surely begun to understand that these sacred places must be protected and preserved.

Through these hearings, we hope to identify where the best protection practices are taking place and where we need to focus our attention if we are to have improvement.

Like other Americans, among the places that Native Americans hold sacred are the grave sites of their dear departed loved ones. Because of the tragic record of the desecration and destruction of Native American grave sites, the Congress enacted a law in 1990 to provide for the protection of graves. That law is an Indian law. It is codified, as are all other laws enacted for the benefit of the Native people of the United States, in title 25 of the United States Code. It is intended to provide for the protection of Native American graves.

Today the committee will receive testimony on some of the land management activities of the Department of the Interior and the impact of those activities on the Federal policy which supports and protects Native American sacred places.

May I now call upon the cochairman of the committee, Senator Campbell.

STATEMENT OF HON. BEN NIGHTHORSE CAMPBELL, U.S. SENATOR FROM COLORADO, VICE CHAIRMAN, COMMITTEE ON INDIAN AFFAIRS

Senator CAMPBELL. Thank you, Mr. Chairman.

As the committee deals with the pressing needs of Indian people like health care and housing, this issue often goes overlooked, but it is extremely important. Today we will receive testimony on the issue of Native sacred sites and how those sites have been or are being impacted by the activities of our Department of the Interior.

Native peoples, perhaps more than most, are affected because the places we hold dear are being encroached on by the needs and demands of the modern economy and economic activities such as mining, logging, recreation, and building. The dichotomy, of course, is that in this day and age sometimes Indian people need those activities, themselves, for jobs and making sure that their families are well fed.

Many of the most sacred places are now located on private lands, which makes the protection of those sites even more difficult than usual.

A legitimate question to ask: How has the Federal Government responded to those needs, particularly in a Nation that historically has turned our sacred sites on non-Indian land, such as battlefield and cemeteries, into tourist attractions? Just as President Nixon launched the Indian Self-Determination Act in 1970, 1 year later, in 1971, he signed important legislation returning the Blue Lake Band to the Pueblo of Taos, which holds them sacred. A real awakening has taken place since 1971.

Next year we will celebrate the 25th anniversary of the American Indian Religious Freedom Act, and we are joined today by one of the people on the panel, our good friend, Suzan Harjo, who was instrumental in working the halls of Congress and the White House to get that key legislation passed.

As much as a milestone as the American Indian Religious Freedom Act was, the courts have interpreted it to be lacking in enforcement authority. In the years since that enactment, there have been other efforts to protect the Native sites—NAGPRA in 1990, President Clinton's 1996 Executive Order on Sacred Sites, and progressive action by many agencies at the Federal level. Just as Native people continue to try and protect their sacred places, it is evident to me that the legal protections now in place for cultural and religious sites in America are lacking in many respects.

With that, Mr. Chairman, I thank you for convening this hearing and look forward to the testimony of our witnesses.

The CHAIRMAN. It is my great pleasure and honor to recognize the distinguished Senator from the State of California, The Honorable Barbara Boxer.

STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM CALIFORNIA

Senator BOXER. Thank you so much, Mr. Chairman, and thank you so much, Senator Campbell, for holding this important hearing

and for your stewardship on the whole issue of Indian affairs. It is so important, and you both are there every day, and I can't tell you how much I appreciate it.

Before I start my testimony, which probably goes about 4 minutes, I would like to ask if it would be possible for you to submit some questions on my behalf to the Administration and ask them to answer these in writing for me.

The CHAIRMAN. We will submit those questions.

Senator BOXER. I thank you so very much.

This whole issue of sacred sites has become very personal with me because I was introduced to a particular issue I will talk about today and thought that it was all resolved. It turns out it isn't. I'm going to need your help.

I am very happy that today there are two witnesses here, in particular, President Jackson and Lorey Cachora on behalf of the Quechan Nation. I have had a long relationship with this tribe, a relationship that came about because of unfortunate circumstances I will describe in a few minutes.

Let me first try to elaborate on your eloquence on the importance of sacred sites and how strongly I feel that they must be protected.

Mr. Chairman, in this world there are a number of sacred sites that we all recognize, respect, and revere as sacred, regardless of our individual faith. The very idea of placing, say, an oil rig next to the Wailing Wall or making a parking lot out of Notre Dame or placing that same oil rig near the Blue Mosque or Westminster Abbey, it is to preposterous to even say or to even imagine. Yet, there are numerous Native American sites, sacred sites, that are unknown, but many that are known that are currently being ravaged and destroyed in these very same ways.

I feel comfortable saying that in this room we all understand the importance of sacred sites and the role they play in the spiritual and religious life of a tribe, but there's a difference between understanding that sacred sites exist and respecting these sites, being cognizant of their importance and protecting them with the full force of the Federal law.

The protection of sacred sites is certainly not a new issue. It has been dealt with a number of times, as Senator Campbell has alluded to, through executive order and Federal laws and regulations. However, even all that doesn't change the fact that sacred sites are being threatened today in my State of California and across this Nation.

I want to tell you about a specific sacred site in which I have been intimately involved, one that involves the Quechan Nation. It is an epic battle against a proposed gold mine.

The story spans nearly a decade and began in 1994 when the Canadian-based GLAMIS Imperial Corporation proposed development of an open pit gold mine that would impact over 1,600 acres of land in Southern California. "Impact" is a term that can mean many things. This proposed mine wouldn't just impact these lands, it promises to destroy them.

Open pit gold mining, which is what GLAMIS proposed, literally alters the very face of the landscape, and, because of the scope and the damage, it is so hard to comprehend. I did bring a chart, and it doesn't even do it justice, but imagine this. This are is all—this

is another are in my State, not far from where this is, and it was all beautiful, green, rolling hills, and you can see what happens.

We also have—and you can't see it, it's in the small part here—yellowish-orange rivers near this mine. The rivers are dead zones—dead zones—and have been poisoned by the cyanide used in this type of gold mining.

We know how Indians, Indian tribes, Native Americans love the land, the water, respect and treasure it, and here we have a situation of dead zone that has been poisoned by cyanide from this type of gold mining that has been proposed by GLAMIS.

It is fair to say that this type of gold mining creates sacrifice zones, and in this case GLAMIS proposed that the sacrifice zone be a location that is sacred to the Quechan people.

During the permit review process, President Clinton's Advisory Council on Historic Preservation testified that the mine would essentially—and I'm quoting, Mr. Chairman:

> Essentially destroy the tribe's ability to practice and transmit to future generations the ceremonies and values that sustain their cultural existence.

I think that is an eloquent quote. I'm going to say it one more time. The President's Advisory Council on Historic Preservation testified that the mine would:

> Essentially destroy the tribe's ability to practice and transmit to future generations the ceremonies and values that sustain their cultural existence.

To me, I would put it in even starker words. It says that this mine would rip the heart out of the tribe's religious center.

The tribe, the its credit, played by the rules, Mr. Chairman. They participated in the environmental review process, they expressed their objections. I repeatedly expressed mine in writing, verbally. I met with Secretary Babbitt to let him know of my opposition. I was very strong.

In January 2001, the Clinton administration did the right thing. In an unprecedented move, it denied GLAMIS the necessary permits. Never before had the Bureau of Land Management denied a mine because of cultural impacts. The Administration's decision to reject the mine was based, in part, on the fact that:

> The proposed project is in an area determined to have nationally significant Native American values and historic properties and would cause unavoidable adverse impacts to these resources.

The day that decision was made was a day when the Federal Government honored its legal and ethical obligations to protect the interest of the Quechan Tribe. It sent a powerful and positive message that Native American religious rights would be honored and their sacred sites would be protected.

Mr. Chairman and Mr. Cochairman, that was a wonderful day when that decision came down, but the victory didn't last long. In November 2001, Secretary Gale Norton came up with a new interpretation of mining law and decided she was going to reopen consideration of the GLAMIS proposal. Although the initial permit denial took 6 years and hundreds of hours of consultation, the decision to reopen the permit involved no public input and took only a few months.

Nowhere in the convoluted explanation that Secretary Norton gave to justify this decision did she ever address the tribe's con-

cerns. She simply acted as if it didn't matter, or maybe she knew there was no legal or moral justification she could give.

The decision is a rejection of her trust obligations to that tribe. It ignores her duty to comply with the executive order on sacred sites and it rejects her obligation to comply with the Native American Grave Protection and Repatriation Act.

But what really bothers me deeply is that Secretary Norton met with the GLAMIS Corporation, a private Canadian company, prior to reversing the Clinton decision, but from everything we can gather—and we've asked everyone, and you can ask, yourself—she did not meet with or consult with the tribe. In fact, it is my understanding that she still has not met with the tribe, despite her plans to move forward with a project that will tear the heart out of their culture.

I hope that today's witness for the Administration can give us confirmation that the Secretary will meet with the tribe in the near future to discuss this.

When I ask myself how this could happen, the only conclusion I can draw is that Secretary Norton views the GLAMIS project as just another mining project, but I'm here to tell you it isn't. The GLAMIS project is about the desecration of a sacred site, the Notre Dame, the Wailing Wall, Westminster Abbey.

We in Congress must find a way to ensure that the Quechan Nation sacred sites and the sacred sites of other tribes are not allowed to fall prey to this type of destruction. Although I have mentioned one situation in my State, I know that this is not a State-specific issue, it is a national issue, and that is why I am so grateful to you for putting this issue on the map. It must be addressed at the national level.

I once again thank you, Mr. Chairman and Mr. Cochairman for convening this series of hearings and to your dedication to making sure that these sacred sites are forever protected.

Thank you very much.

The CHAIRMAN. Your strong and moving words will be kept in mind as we progress, madam.

Senator BOXER. Thank you. Thank you so very much.

Senator CAMPBELL. May I just say to Senator Boxer that I certainly agree with her and I intend to write a letter to the Secretary and try to talk to her about it personally.

I'm glad you have such a good feeling, too, about these sacred sites. You know, Indian sacred sites are not just based on where remains lie. It is where the spirits of their ancestors lie. I guess, because of our history of America, in which many of them were not recorded or documented or located, in some cases you have to ask Indian people, obviously, where they are. They know because their fathers and their grandfathers have told them, but it wasn't recorded in some book in Washington, D.C.

As I understand it—as you do—there is an obligation, when opening a new mine for instance, to negotiate with the tribes, but meeting with them and consulting and then doing what you want anyway is not my idea of fulfilling an obligation with two parties involved.

I just wanted you to know I am certainly willing to help you.

Senator BOXER. I just want to say how grateful I am to you and to Senator Inouye, and I think there is not an understanding here. Look, for people who haven't really focused on this, it is the whole notion. You're dealing with sovereign nations. You're right—it's not a matter of having filed a form with another nation.

What you say I agree with 100 percent, and I thank you again.

The CHAIRMAN. Our next witness is the deputy assistant secretary, Policy and International Affairs, of the Office of Policy Management and Budget of the Department of the Interior, Christopher Kearney.

STATEMENT OF CHRISTOPHER KEARNEY, DEPUTY ASSISTANT SECRETARY, POLICY AND INTERNATIONAL AFFAIRS, OFFICE OF POLICY, MANAGEMENT AND BUDGET, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY PATRICIA PARKER, CHIEF, AMERICAN INDIAN LIAISON OFFICE; STEPHEN PARSONS, HYDROLOGIST, OFFICE OF SURFACE MINING; MARILYN NICKELS, GROUP MANAGER, CULTURAL AND FOSSIL RESOURCES, BUREAU OF LAND MANAGEMENT; AND JOHN ROBBINS, ASSISTANT DIRECTOR, CULTURAL RESOURCES, STEWARDSHIP, PARTNERSHIPS, NATIONAL PARK SERVICE

Mr. KEARNEY. Good morning, Mr. Chairman and Mr. Cochairman. Thank you for inviting me to testify. We have some witnesses joining us who will be able to answer a number of technical questions for you should we be getting into that, and with your indulgence I will begin my statement.

The CHAIRMAN. Will you identify your staff, sir?

Mr. KEARNEY. Yes; I will, sir.

As I said, my name is Chris Kearney. I am the deputy assistant secretary for Policy and International Affairs in the Office of the Assistant Secretary of Policy, Management, and Budget. I am accompanied today by Stephen Parsons, a hydrologist with the Office of Surface Mining; Marilyn Nickels, the group manager, Cultural and Fossil Resources, Bureau of Land Management; and also John Robbins, the assistant director, Cultural Resources, Stewardship, Partnerships, the National Park Service; and Patricia Parker, chief of the American Indian Liaison Office.

Executive Order 13007 regarding Indian sacred sites was issued in 1996. That order requires Federal land management agencies, to the extent practical permitted by law and not clearly inconsistent with essential agency functions to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.

Where practical and appropriate, it implements procedures to ensure reasonable notice is provided of proposed actions or policies that may restrict future access to or ceremonial use of or adversely affect the physical integrity of these sites.

The order also requires Federal agencies to consult with tribes on a government-to-government basis whenever plans, activities, decisions, or proposed actions affect the integrity of or access to the sites.

Each relevant Cabinet agency was required to send an implementation report to the President within 1 year of the order's issuance.

Coordination of the Department of the Interior's implementation was assigned to the Office of American Indian Trust, OAIT. OAIT is responsible for ensuring Departmentwide compliance and overall consistency of the sacred sites executive order.

To assist that office to communicate with various bureaus in the Department, an inter-agency working group on implementation of the sacred sites executive order was created, comprising representatives of each departmental bureau, appropriate offices, and the Office of the Solicitor.

The working group has actively sought input from tribal representatives on all aspects of the implementation process. The Department asked for tribal input on the structure, location, and content for consultations, and hosted three formal discussion meetings between tribal and Federal representatives focusing on implementation from both a procedural and substantive perspective. Those meetings were held in Portland, Oregon; Denver, Colorado; and Reston, Virginia in March and early April 1997.

Topics at the meeting included how to conduct meaningful consultation, how and when the processes are triggered, how to protect the physical integrity of the sites, how to protect the confidentiality of culturally sensitive information, accommodating access and use, as well as dispute resolution.

In October 2001 the Department attended a Sacred Lands Forum in Boulder, CO, and through considerable internal review and dialogue with interested participants of the forum it became clear that we needed to move forward on establishing policies and procedures for protecting sacred lands and the executive order.

At the Overcoming the Challenges Symposium that was held in March of 2002, held as part of the Washington, DC Sacred Lands Forum, we announced our intent to reconvene the Department's Sacred Sites Working Group.

In June of this year, each of the Department of the Interior offices and bureaus involved with sacred sites were notified of plans to reconvene the working group, and they were asked to assign a representative to it. Our objective is to renew the momentum within the bureaus for establishing the necessary procedures to carry-out our obligations understood in the policy we created and ensure that we fully take into account all tribal concerns.

It is also our intent, working with the tribes, to finalize and then publish these policies and procedures and provide them to the tribes and other interested parties and to ensure that implementation occurs in a timely manner.

The Office of American Indian Trust is responsible for the coordination, logistics, and staff assistance within the Department.

The first working group meeting occurred just this past July 2 in the Office of the Assistant Secretary for Indian Affairs. We are in the process of now identifying the current status of sacred site management across the bureaus, and that will be followed by future meetings with developing management changes and tools to ensure full compliance with the order.

In addition, and as a result of the sacred lands forum, on August 14 the Department and the Advisory Council on Historic Preservation are sponsoring an inter-agency meeting on sacred lands and cultural resources under the auspices of the Inter–Agency Working Group on Environmental Justice. These meetings are meant to help bring awareness and enhance coordination of sacred sites, not just within the Department but governmentwide.

This concludes my statement. I would be pleased to answer any questions you might have, and any technical questions these folks would be happy to answer for you, as well.

The CHAIRMAN. I thank you very much, Mr. Kearney.

[Prepared statement of Mr. Kearney appears in appendix.]

The CHAIRMAN. The committee has been advised that last February an employee of the National Park Service segregated and destroyed several boxes of NAGPRA—that's the Native American Grave Protection and Repatriation Act—and archeology and ethnographic program documents. Did this ever happen? And what did they destroy, if they did?

Mr. KEARNEY. Mr. Chairman, my understanding is that some answers and some questions related to that have been provided to you already. Is that correct, or have you received other information?

The CHAIRMAN. Staff tells me it is not correct.

Mr. KEARNEY. Okay. My understanding of the information was that this was as part of offices in the National Capital Region Office that they were moving to another office, that they were consolidating space, that they were going through old files and records, reducing what they had, and that there were no NAGPRA original records or materials that were destroyed. In fact, all of the material, as I understand it, was retrieved from the trash where it had been sent, and that the material was reviewed and examined, and that it was a range of magazines, of outdated forms, Government-related papers and so forth, miscellaneous materials.

To the extent there was anything that was NAGPRA related, it was duplicative forms and information. There were no sensitive records or information destroyed is the information that I have. In fact, all of those boxes were retrieved, and it was simply a process associated with essentially throwing out outdated materials and records—not records, but outdated materials and forms and so forth.

The CHAIRMAN. Is there an ongoing investigation or are you satisfied with your findings?

Mr. KEARNEY. My understanding is that there was a thorough review and independent evaluation at that time, and that we are satisfied with that conclusion.

The CHAIRMAN. So nothing relevant or important was destroyed?

Mr. KEARNEY. That's correct.

The CHAIRMAN. Some have suggested that the NAGPRA program office should be moved to the Office of the Secretary. What are your thoughts on that?

Mr. KEARNEY. The Department's position is that, based on a review of that program last year and with a number of changes and actions that the Park Service has taken, we are satisfied that the program can remain within the Park Service and will remain in

the Park Service; however, we are open to any suggestions and ideas by way of improving the management and the process and giving additional levels of comfort that the committee may need to ensure that that's the case, but we are satisfied that steps have been taken to ensure that the program can operate appropriately.

In the Park Service, for example, staffing has been improved. There have been changes in individuals who oversee the program. And there is a redirection and a refocus of the program.

The CHAIRMAN. So at the present time this move is not under serious consideration?

Mr. KEARNEY. That's correct. That's right. The decision has been made to retain it at the Park Service.

The CHAIRMAN. Was the explanation or description provided by Senator Boxer on the gold mine accurate from your standpoint?

Mr. KEARNEY. I would defer to the technical folks on some of the specific aspects with respect to that in terms of whatever question you might want to ask about it.

Ms. NICKELS. Could you give me specifically what part of the testimony you were——

The CHAIRMAN. Well, you were here when Senator Boxer testified.

Ms. NICKELS. Right.

The CHAIRMAN. And she said, first, there was no consultation with members, appropriate members of the Indian nation. Second, it is a very sacred site listed as one of the 10 most important by the Government of the United States, and it was once declared to be sacred and therefore inviolate, but then this Administration suddenly changed positions, without hearings or consultation. Are those statements correct?

Ms. NICKELS. It is my understanding that the Solicitor's opinion in the last Administration was reviewed. The Solicitor's opinion, which underlay the decision by the Secretary in the past Administration to deny the mining plan of operation was reviewed by Solicitor Meyers in this Administration, and that he advised the Secretary that, based upon his review, that that Solicitor's opinion should be overturned, and advised her to rescind that decision of denial.

Pursuant to that decision by the Secretary, the Bureau of Land Management has proceeded forward with a review now of the mining plan of operation. It is to be preceded by validity examinations which are required before we approve the mining plan of operation or go forward with review of the mining plan of operation.

The CHAIRMAN. Did you consult with the leaders of the nation?

Ms. NICKELS. I believe that the Bureau of Land Management was not involved directly at the decision at the Secretarial level, and so I would defer to the Secretary's office to answer questions about consultation with tribes on that decision.

Mr. KEARNEY. We would be happy to respond to that in writing to be sure that we get the facts for you correctly.

The CHAIRMAN. Was the Secretary's office or the appropriate offices aware that this site was considered one of the ten most sacred sites in the United States?

Mr. KEARNEY. Again, I would be happy to get you an answer. The proceedings and the steps through which that unfolded is in-

formation we want to make sure that we have for you correctly, exactly what the full context and the story was.

The CHAIRMAN. Well, I have a document here that says this is one of the top 10—in fact, the most sacred of all sites—but the Interior Department wasn't aware of that?

Mr. KEARNEY. Senator, I was not directly involved in the activities and the decisions, and rather than—I do not want to mischaracterize or characterize steps and actions, level of information that was aware. I'm certain that there was a full set of facts and information that went into these decisions. I simply want to make sure we have it accurate for the committee.

The CHAIRMAN. Are you aware of the National Trust for Historic Preservation?

Mr. KEARNEY. Yes, sir.

The CHAIRMAN. Is that a worthy and meritorious organization?

Mr. KEARNEY. Yes, sir; certainly they are.

The CHAIRMAN. And they have set forth America's 11 most endangered historic sites. Have you seen this document?

Mr. KEARNEY. I'm not immediately familiar with it. No, Senator.

The CHAIRMAN. This appeared in the "Atlantic Monthly," August 2002, so it is most recent. The first site described is the one that we are speaking of in Imperial County, California, Quechan Sacred Site.

Ms. NICKELS. Senator, we are aware of the list of the National Trust for Historic Preservation that lists Indian Pass as one of the most endangered, yes.

The CHAIRMAN. But, notwithstanding that, you did not consult with the leaders of the nation?

Ms. NICKELS. As I mentioned before, at the Bureau level we must defer to the Department to characterize the discussions that went on and the decision to rescind the past denial.

The CHAIRMAN. Well, if they break down St. Peter's Cathedral I hope we consult with them.

What is a culturally unidentifiable human remain?

Mr. KEARNEY. Under NAGPRA, culturally unidentifiable——

The CHAIRMAN. Yes, yes.

Mr. KEARNEY [continuing]. Human remains are human remains that cannot be culturally affiliated with a federally recognized tribe.

The CHAIRMAN. And I have been told that you have a rulemaking regarding disposition. What is the rule that you are suggesting?

Mr. KEARNEY. Under the original act one of the sections that further regulations were to be developed for was the disposition of culturally unidentifiable human remains, and the development of that rule is underway now.

The CHAIRMAN. You are supposed to have a list of these remains; is that correct?

Mr. KEARNEY. Yes; one of the first tasks regarding culturally unidentifiable human remains is the development of a list that——

The CHAIRMAN. Have you completed this list?

Mr. KEARNEY. No; that list is not complete, but it is underway.

The CHAIRMAN. When that list is completed, will it be shared with us?

Mr. KEARNEY. That list will be available to the public and we'll make sure that the committee has a copy of that list.

The CHAIRMAN. Is there any government-to-government consultation that is taking place with Native Americans on this proposed rule?

Mr. KEARNEY. The way that the—the terms of the rule, the draft was developed from recommendations that were developed by the Native American Graves Protection and Repatriation Review Committee, which is the citizens advisory committee under NAGPRA, and the recommendations of the committee were developed in several public meetings, the Review Committee's public meetings.

The rule then has been drafted based on the committee's recommendations, and then again this is a draft rule which would then be available for public comment.

The CHAIRMAN. It will be open to the leaders of Indian Country?

Mr. KEARNEY. Yes.

The CHAIRMAN. I have several more questions, but I'll call on our cochairman.

Senator CAMPBELL. Thank you, Mr. Chairman. We got our first call to vote, and we'll get a second one in 1 minute, so we're going to have to run. I assume you're going to take a break for a couple of minutes.

The CHAIRMAN. Yes.

Senator CAMPBELL. Just in the couple of minutes I have, I don't want to reduce it just to asking a bunch of sanitized technical questions dealing with rules and times and dates. I'd just point out not too long ago I was on a CODEL and we stopped at Normandy, where I visited Omaha, Juno, and Sword, the beaches where so many Americans died. I know that my chairman understands the feeling of being a decorated military hero, himself. When you visit a place where your brothers fell, I guess I would only ask you—and you don't have to answer it out loud, but consider in your own heart how would you feel if your grandfather died there or your father and you found out a mine was going to be built on Omaha Beach.

I think we get bogged down here in Congress so much with doing it by the book and doing it by rules that we don't do enough by the heart, and I want you to think about that while we're voting.

Thank you, Mr. Chairman.

The CHAIRMAN. We will stand in recess for 5 minutes.

[Recess.]

The CHAIRMAN. Any more questions?

Senator CAMPBELL. I have one or two, Mr. Chairman. Thank you for letting me continue with questions, since I didn't really get to ask one a while ago that I wanted an answer for.

Mr. Kearney, I happen to be a westerner. I'm certainly sympathetic with the importance and the need to develop natural resources and at the same time to protect the environment. We really get caught in a cross-fire out west, as you might imagine, sometimes people calling it the War Between the Old West and the New West.

I think the Secretary shares that view, too, coming from Colorado, and a person that has been involved in public policy so many years.

Let me ask you about the Department. As I understand it, it has been engaged now for six years with tribes on sacred place protection. What is the end goal? And do we need more legislation or do we need a change in policy? We're certainly missing somewhere with the tribes.

Mr. KEARNEY. Well, Senator, let me try to answer it this way and perhaps give you a further follow-up answer. We certainly find it to be critically important to take into account all matters related to sacred sites, and we are trying, as part of this working group, to give some guidance to the executive order. There are a number of issues that the working group will be looking at, and it may well be in that context that that can be examined. We're really trying to develop guidance that gives Federal land managers on the ground ways to address and deal in advance with issues like those that have been raised by GLAMIS and others so that we have some sense of what we're dealing with before we go into situations to try to minimize controversy and to take into consideration the concerns of the tribes and others. So that is our commitment and that's what we are focused on.

Senator CAMPBELL. But tribes really don't have a veto. That means if you go out and meet with them and you listen to their concerns, whoever wants to develop the mining area, if they've got enough clout it tends to get done, in my view, because, as I understand it, tribes may complain, they may register their views on it, but bottom line is it can be run over the top of. Is that correct or not? Unless they go to court, and maybe the courts might uphold their claim.

Mr. KEARNEY. Well, I think, Senator, that there is a commitment to do everything possible to maximize and take into consideration the concerns and the impacts and the effects on tribes and taking steps necessary to mitigate those to every extent that we possibly can. That is in every regard. We always will try to do that.

Senator CAMPBELL. Can you give the committee a couple of instances in which tribal complaints have stopped a big development, say a mine development?

Mr. KEARNEY. In my direct experience, nothing immediately comes to mind, but I would be happy to try to check for you and see if anything falls into that category.

Senator CAMPBELL. I'd appreciate it if you would, because it is my information that they have never been able to stop one. I mean, there might be some consultation, but the bottom line is it gets done.

Thank you, Mr. Chairman.

The CHAIRMAN. I thank you very much.

If I may for a moment go back to the destruction of documents, according to my files here the committee was advised that several solicitors conducted an inventory and reviewed the documents in the boxes, and that, contrary to your understanding, the boxes contained NAGPRA records, personnel records, financial records, and travel records. Can you provide the committee with a clarification of this in writing?

Mr. KEARNEY. Certainly.

The CHAIRMAN. I am certain you are aware that a very famous dance shirt, the ghost dance shirt of Crazy Horse, was sold by

Sothebys, and the Department did not pursue this matter because it did not have a final rule in place. Is there such a rule now that can stop the sale?

Mr. KEARNEY. I apologize, Senator. I was taking a note on your previous request. Could you repeat that question, please?

The CHAIRMAN. It is the committee's understanding that one of the items of cultural patrimony, the ghost dance shirt of Crazy Horse—in minds of Native Americans, that's a very important shirt——

Mr. KEARNEY. Yes, sir.

The CHAIRMAN [continuing]. Was sold by Sothebys and the Department did not pursue the matter because the Department did not have a final rule in place. Do you have a final rule in place?

Mr. KEARNEY. I believe so, but I'd defer to——

The CHAIRMAN. On civil penalty regulations?

Mr. KEARNEY. I believe so.

Mr. ROBBINS. Currently the rule in place is an interim rule on civil penalties, and the final rule continues to be in development.

The CHAIRMAN. So if we have another valuable shirt of this nature, you can't do anything to stop its sale?

Mr. ROBBINS. The decision to pursue civil penalties or not is a decision taken in consultation with the Solicitor's Office, and I have not been part of any of those decisions. But on the matter of interim and final rule, currently an interim rule is in effect and the final rule is in preparation.

The CHAIRMAN. So with this interim rule, would the Government have been able to save Crazy Horse's shirt?

Mr. ROBBINS. I would have to respond to that. I would request that I would be able to respond to that in writing.

The CHAIRMAN. Please do.

I would like to know in your response also what is the status of the civil penalty rule. It is an interim rule. How long will it be interim?

Mr. ROBBINS. We will include that in the response.

The CHAIRMAN. Do you have any idea how long it will be?

Mr. ROBBINS. The final rule is in preparation now, and I would want to give you an accurate status report on where that is in the process towards final rulemaking.

Mr. KEARNEY. We'll be sure to get that to you, Senator, as soon as we can.

The CHAIRMAN. Going back to the GLAMIS gold mine, the former Secretary of the Interior based his findings that the open pit cyanide heat leach gold mine would cause undue impairment to cultural and natural resources; however, the present Secretary rescinded the earlier denial of the mine permit on the grounds that the Department did not have regulations that defined undue impairment, and that lack of such definition thus prohibited the Department from denying the mine, despite the fact that the statutory standard has been in place for 20 years in the California desert conservation area.

If that is the case, what information did the Department rely on to make its rescission of the denial of the proposed mine project ?

Mr. KEARNEY. Senator, I would be happy to respond to you in writing. I was not directly involved in that and do not have the information to provide to you at this time with respect to that.

The CHAIRMAN. Anyone here involved in it?

Mr. KEARNEY. No; Senator.

The CHAIRMAN. Do you know what undue impairment is?

Mr. KEARNEY. Not familiar with the term specifically as it relates that it was the basis for that.

The CHAIRMAN. Does the BLM consider sites of religious and cultural significance to Native Americans to be one of the resources to be protected under the existing authority, including the Federal Land Policy and Management Act?

Ms. NICKELS. Yes, Senator; we do include that category of property in all of our considerations under the Federal Land Policy and Management Act, the American Indian Religious Freedom Act, the executive order on sacred sites, and the National Historic Preservation Act requirement, so a suite of laws govern our decisionmaking process and the process that we go through before we reach these decisions.

The CHAIRMAN. That being your view, I presume you will define "undue impairment," won't you?

Ms. NICKELS. Again, I would have to defer to the Department and to the Solicitor's Office for that in answering that question.

The CHAIRMAN. Don't you think it is important?

Ms. NICKELS. Yes, Senator; it is important.

The CHAIRMAN. Because if that is not promulgated, BLM may not be able to implement the Congressional mandate in the California desert conservation area and protect that area; isn't that correct? It will be just two words, "undue impairment."

In 2000 the Bureau of Land Management withdrew the Indian Pass area from new mining claims to protect the Indian cultural and religious values found there. Is the Bureau of Land Management considering any action to rescind the withdrawal of the area from mineral entry?

Ms. NICKELS. To my knowledge we are not.

The CHAIRMAN. Can we get an official response from the BLM on that?

Ms. NICKELS. We would be happy to followup with answer in writing.

The CHAIRMAN. Thank you very much.

Ms. NICKELS. I am advised, Senator, it is a standard 20-year withdraw, the action that was taken originally.

The CHAIRMAN. Could you find out for this committee, because it is our understanding that the Bureau of Land Management did not consult with the Quechan Nation and other affected tribes before it rescinded the denial of the mine permit. And you said you have no idea?

Ms. NICKELS. I'd like to clarify my response. The decisions with regard to the rescission of the denial that was provided to her by the Solicitor—I asked about extent to which tribes were consulted in that decision which the Secretary made.

The CHAIRMAN. I think it would be important to the committee to know whether there was or there was not consultation with the Nation.

Does the Office of Surface Mining have a tribal consultation policy?

Mr. KEARNEY. Yes; my understand is yes, sir, they do. Yes, sir, my understanding is that they do, and they can speak to more detail.

Mr. PARSONS. Yes; we have a directive, a Bureau directive, on consultation with Indian tribes regarding the permitting and other activities associated with coal mining and BLM activities and that sort of thing.

The CHAIRMAN. In the Peabody Mine activities, with whom did the Office of Surface Mining consult regarding activities affecting the Hopi community, or did you consult pursuant to the policy?

Mr. PARSONS. Yes; from the time that the permanent program application for Surface Mining Control and Reclamation Act permit came in in 1985, I believe, the Hopi Tribe and the Navajo Nation, as well, were involved, consulted, involved in review. They were provided with the same materials that we receive, and——

The CHAIRMAN. So you did consult with the national leaders of the Hopi Nation?

Mr. PARSONS. Yes.

The CHAIRMAN. I have several other rather technical questions. May I submit them to you?

Mr. KEARNEY. Yes, Senator; we would be happy to do that.

Senator CAMPBELL. Mr. Chairman, I will also submit some further questions.

I would like to just say a sentence or two since you brought up the question of Crazy Horse's shirt and dealt with rules in your questions, too.

Years ago you and I worked very hard on a bill to authorize the building of the Museum of the American Indians with the Smithsonian, as you remember. That is being built now and is going to be open in a few years to the enjoyment of millions of people throughout the world to be able to visit that. But when we authorized that bill we put a section in there that required the Smithsonian to return skeletal remains and funerary objects, many that were taken by force or stolen. And, by the way, that's still going on in some places, as you probably know. There are museums all over the country if not all of the world, things that were taken from burial sites of Indian people. You can put yourself in that same feeling, if you would, you know, just recognize how you would feel if something was taken out of your grandmother's grave and you saw it in a museum later. It is an extremely touchy issue.

But the rules, when they are promulgated, when we passed that bill we found there was a glitch, and that was that some of those things are not returned because they don't have a clear chain of possession from the time it disappeared from the tribe to the time they suddenly have it in their glass case in the Smithsonian. I think I can apply that logic to all the rules with all the agencies. If they don't have that very clear-cut progression in writing somewhere, then they assume that they can't give it back, which I think is wrong. Cheyennes have been trying to get a pipe back for 15 years and can't do it because there is a hole in from the time it disappeared until the time it showed up in the Smithsonian collection.

I don't want to malign the Smithsonian because I am a big supporter of it, but I think that shows you the intent of Congress sometimes really is foiled by the rules. By the time they get done with the rules, that's not what we meant when we wanted to do something good for people. I would just like this committee to keep that in mind.

Thank you, Mr. Chairman.

The CHAIRMAN. I just want to note that I am also involved in DOD matters, and I always find that, in discussing sacred sites with the highest officials of DOD, they are always prepared to respond as to policy matters. I hope when we have the next meeting on sacred sites the Department will be able to give us some response on policy matters.

Mr. KEARNEY. Yes, sir.

The CHAIRMAN. With that, I thank you very much, sir. Thank you very much.

Now may I call upon the third panel: Michael Jackson, Senior, president of the Quechan Indian Nation; accompanied by Lorey Cachora, Housing Director, consultant to the Culture Committee, Quechan Indian Nation, Fort Yuma Indian Reservation in Arizona; Malcolm Bowekaty, Governor of the Pueblo of Zuni of New Mexico.

The CHAIRMAN. President Jackson, welcome, sir.

STATEMENT OF MICHAEL JACKSON, SR., PRESIDENT, QUECHAN INDIAN TRIBE, ACCOMPANIED BY LOREY CACHORA, HOUSING DIRECTOR, CONSULTANT TO THE CULTURE COMMITTEE, QUECHAN INDIAN TRIBE, FORT YUMA INDIAN RESERVATION, YUMA, AZ AND COURTNEY ANN COYLE, COUNSEL, QUECHAN INDIAN TRIBE

Mr. JACKSON. Good morning. Again, it is an honor, Senator Inouye and Senator Campbell, to be among you.

Our nation is located in Fort Yuma, California, Imperial County. My shava and tribal member, Mr. Cachora, is seated next to me. We have come a long way to bring from our tribe, from our most elders, and also from our most precious resource, our younger generation of our tribe.

Our religion, our culture, our tradition has been handed down from time immemorial through our elders for generations, so we will not let our beliefs die.

Our most sacred site, Indian Pass, is under attack to be destroyed by a mining company, which we all know. We have spoken about it this morning. It plans to operate an open pit cyanide leach operation.

Years ago we followed the correct legislative process, which the United States requested us to follow, which we did. We followed the permit process, environmental process, numerous hearings, consultation process between our government and the Federal Government. We had tremendous support throughout the country. Finally, Secretary Babbitt, under the Clinton administration, denied the mine, which was a great victory for the Quechan Nation to save our history.

Immediately under the new Bush administration the decision was reversed. Gale Norton made the decision against the Quechan people without consulting with our nation, without sitting down at

the table and talking to us, looking into our eyes, hearing from our hearts why this was a most sacred site to our people for our past and our future. She did not follow the correct legislative process, and still today she refuses to sit down and talk to us.

As you asked the questions this morning, no, there was no consultation period with us. I would know. I am the president of our tribe. The process follows that they'll call me saying that we want to talk to you about this very important matter that affects you. I'll contact my council, the president of our Culture Committee, Mr. Cachora, will set a time and date. I'm still young. My mind is still sharp. I did not forget, so this never happened.

When this happened, when the reverse decision was made, this is something that our younger generation in our tribe just doesn't understand. We thought we won the victory, then it was taken away before we had a chance to celebrate. Our elders just shake their heads, knowing this has happened too many times in the past.

Since that time, our sacred sites have been placed on the most endangered historic places, which was said this morning. The Quechan Nation is watching and waiting for the Federal Government to make the only right decision—that is, to make a final decision to deny the gold mine once again.

Our ancestors left Indian Pass for a reason—to pass on to the generations to come—that is us today and our youngsters. Mother Earth is in our bodies, our blood. The river water runs through us. It is very sacred to us. Native Americans across the country, as you know, are the ones who saved Mother Earth. They cherish Mother Earth, and they will do anything to save what we walk on.

I bring the very hearts of our people to you today to help save our history, our past, to preserve it through the ages. We only talk the truth. Hopefully, somebody will listen to us, what we are trying to say. Without Indian Pass, we can't carry on our culture, our tradition, our religious beliefs. They will be gone forever should this land mine be permitted to proceed.

In closing, I would like to make a final statement. Senator Inouye, you posed a question to the group here earlier, and it really strikes me that they didn't answer the questions completely. When they make a decision against somebody, there should be a reason why a decision is made. Hopefully like you said, in the future you'll come up and let us know why such a decision was made without walking the ground, looking at the site. Gale Norton should be on the site with us to know what we are fighting for. If she would come tomorrow, we'll take her to the site. I know for a fact that she mostly will likely change her mind about helping us save our site and not go against us. You cannot make a decision against the people until you know what decision you're making and what they're fighting for.

I would just really like to state to you that we would like a meeting with her in the future. She has to know from our hearts what we are trying to say.

And that word "undue impairment," that was a play of words on the decision that was reversed. Hopefully the officials that sat up here earlier will understand what the word means and how it affects our tribe.

Thank you.

The CHAIRMAN. I thank you very much, Mr. President.

Does Mr. Cachora want to testify?

Mr. Cachora, you are recognized.

LOREY CACHORA, HOUSING DIRECTOR, CONSULTANT TO THE CULTURE COMMITTEE, QUECHAN INDIAN TRIBE, FORT YUMA INDIAN RESERVATION, YUMA, AZ

Mr. CACHORA. Thank you, Mr. Chairman and members of the committee. Normally when I give presentation I'm on my feet, but in this case it's kind of awkward for me to sit behind a table. In either case, I am Lorey Cachora. I'm here today in my role as a Quechan Tribal Cultural Committee consultant.

I am pleased to be here today to testify on the matter of the important legal subject related to the cultural preservation law. As you well know, I am accompanied by Mr. Jackson and Courtney Coyle, attorney.

The Quechan Tribal Council and the Cultural Committee and the Quechan community has addressed concerns about prehistoric cultural sites, lands that have been affected or could be affected.

The lectures, presentations to the community, county, State, national level have been consistent with the commitment of non–Indians and the Indians of the Nation to help preserve freedom to practice the Quechan religion and culture.

The Quechan people have acknowledged the unique relations with the U.S. Government—that as sovereign nation they retain their inherent rights to self-government. They have expressed what others have expressed long ago. This is the lack of enforcement of provisions in existing preservation laws that should protect sacred sites.

This generation recognizes the problem again today. Someone in the Federal Government is failing to recognize American Indian traditional cultural values.

The Department of Interior follows its own regulations and other controlling laws, but they do not adhere to the requirements of the due process; therefore, they cannot reach their final resolution. This causes the agency to make up rules and regulations as they see fit.

Now the history of the Quechan Tribe along the lower Colorado River—share an ideology and cosmology that encompasses the entire region. Although there are some linguistic differences among the river tribes, they are closely related linguistically and culturally. The Quechan Tribe, also known as the Yumas, includes people of all the Colorado River and other groups with the Lower Colorado River and Gila River as a focus of their lifeway, share a history and belief system, and common ancestry.

All of the river people have since been incorporated into a decisionmaking regarding the cultural landscapes of the region. Topographic features along the Lower Colorado River and Gila River are major focal points in the cosmology of the river people. This area includes the Indian Pass area and others along the river system. Important events occurred at these locations, and the Quechan of the area have a very, very strong belief that geographic

locations in the performance of ritual, which is vital to their effectiveness.

A synthesis of extremely complex creation story—difficult to accomplish because the tale takes four days to tell. However, it encompasses not only the creation of the world and its inhabitants, but the teaching of how to live in the world with proper respect for one's surroundings and other inhabitants of those surroundings, as well as the proper way to treat the resources that have been provided by the spiritual beings.

The Quechan Tribes were in existent in this region and they are imbued with spiritual power. A web of continuity of power spiritually connects these locations with other features in the land as sort of a nervous system.

If there is a break in the web, it affects the entire cosmo. Although peaks are most important in the valley, between peaks and the desert pavement floor are the pathways for the web that flows through from one peak to the other.

This is a brief statement which entails the Quechan practice, beliefs, lifeway, existence. Unfortunately, comments, statements, public education, and national government statements have fallen on deaf ears.

I ask that someone in Washington, DC enforce the responsibility of the Federal Government. If the mining or other industry is permitted on any sacred sites, this will destroy the lifeway of the American Indian.

Today we are here to stay for an indefinite future as Americans. If we say it is sacred, we ask that you impose the maximum degree of protection.

These words that I have expressed here come from the community, Cultural Committee, and Council members. Thank you for listening today.

The CHAIRMAN. Thank you very much, Mr. Cachora.

Now may I call upon Governor Malcolm Bowekaty.

STATEMENT OF MALCOLM BOWEKATY, GOVERNOR, PUEBLO OF ZUNI, ZUNI, NM

Mr. BOWEKATY. Thank you, Chairman Inouye and Vice Chairman Campbell.

Before I get started, on behalf of my Zuni people I want to have the privilege of introducing a delegation with me that accompanied me for this as well as tomorrow's session. We have Lieutenant Governor Barton Martza in the audience, as well as our special assistant to the Council, Pablo Padilla. We also have some people that have been working with us on this particular issue—Jaime Chavez from the Water Network.

I'm going to be talking a little bit about the Zuni Salt Lake as a specific example of how the Department of the Interior has not protected the sacred sites under any stretch of the imagination, whether it be regulatory acts or whether it be through executive orders. The Zuni Salt Lake is a very sacred place. Most of our tribes in the southwest have had some linkages prior to the United States becoming a nation. We have certain protocols and diplomatic ties that were established long before that was even contemplated by our U.S. Government.

The southwest tribes in all the areas of New Mexico, Arizona, and Colorado made pilgrimages to the Salt Lake to harvest salt. Although some of the tribes were actually at war during those historic and pre-historic times, as well as the collective memories of our respective tribes in the southwest, they basically agreed to set aside a sanctuary district that is at least 12 miles from the center of the Salt Lake, a circle surrounding that radius, where they considered it a neutral zone, where warring parties actually came in and encountered in that area would actually not fight each other. Hostilities ceased. I think that really underscores the sanctity of the area.

The Salt Lake is a very unique geological feature. It is actually a salt marsh within a volcano within a volcano. It is what they call a "volcanic marr." There are two cinder cones that are in a bigger caldera. The surrounding area has always been protected, has a lot of shrines for all the Pueblos, as well as the Navajo Nation, as well as the Apache Nations, the White Mountain Apache Nation, the Mescalero, as well as the Jicarilla Apache Nation.

The domestic uses for the salt have been for pilgrimages where tribes went there for treks to pray, ask for spiritual guidance and protection, and also for the basic utilitarian support of basically using the salt for preservative for their meats and for a lot of their produce.

The Zuni Salt Lake is in real danger of disappearing. In the late 1980's the Salt River Project, an Arizona-based power company, began purchasing land and applying for coal leases from the Bureau of Land Management, as well as purchasing private land and ranches to consolidate a logical mine unit. These specific Salt River Project proposes an 18,000-acre coal strip mine. It is roughly 25 sections. You look at 25 sections, each section is considered a mile-by-mile width.

The Salt River Project proposes to strip mine the coal, haul it on a 45-mile railroad corridor to their Arizona Coronado Generating Station. We have, as a tribe, collectively, with prior governors and tribal councils, have fought since the early 1980's to stop this coal mine from occurring. We have played by the rules and played the games as far as the regulations are concerned.

The National Environmental Protection Agency, as well as the act, the National Historic Preservation Act, as well as the Executive orders have consistently failed to provide due process for our tribe's behalf and on behalf of all the tribes in the southwest.

We have gone to the extreme of actually trying to be reasonable neighbors with our counterparts, both at the Salt River Project, with the State of New Mexico, and with the Federal Bureau of Indian Affairs, as well as Department of the Interior. We have gone into private settlement negotiations. All those broke down. We are here to beseech and implore this committee to strengthen the National Environmental Protection Acts as they relate to sacred sites to make sure that the due process and due diligence by those Federal officials are ultimately the sole objective.

We also beseech this committee to look at the National Historic Preservation Act, not to retrofit it to historic architecture, but, more importantly, to create a new section that looks at tribes' perspectives.

Everybody uses mitigation. Mitigation is not in our vocabulary. Mitigation assumes that when a project is created and conceived that it will go and bulldoze its way through, no matter what the obstacles, to have a mine open. That is not the intent and perspective for a lot of our Indian nations.

I would like to point out some of those irregularities in the National Environmental Protection Act as it relates specifically to Zuni experiences in those processes.

The Zuni Tribe has been trying to regulate the regulators. We have had to exploit and explore the environmental protection processes, to look at the environmental impact statements. We have had to use our tribe's resources to disprove and to highlight the questions that I know will become evident in your mind as you hear the rest of the testimony.

I also at this point in time wanted to ask the honorable chairman to ask the same questions of the Secretary and the Assistant Secretary in your further hearings about the questions that may arise from our testimony here.

One of the things we had to do was look at the water resources. We are only looking at two issues relative to the mine. The issues are the water as well as the archeological sites and the traditional cultural properties that are within the Zuni Salt Lake area, as well as the logical mine area of the proposed coal mine.

The water issue—the Bureau of Land Management, the Office of State Engineer for New Mexico, the Coal Surface Mining Commission of New Mexico, the Bureau of Land Management all in their environmental assessments stated that there is going to be no hydrological connections between the Zuni Salt Lake and the proposed mining unit, which is 12 miles away. It took 4 years for our tribe to find this way and prove enough scientific merit to raise the questions.

Just this past July the New Mexico State Mining and Minerals Division issued a revised cumulative hydrological impact assessment that stipulated that there is a hydrological connection.

We are raising the same kind of issues relative to archeological sites. It is ironic that you have individuals in responsible, decision-making positions—and I'll give you two examples. The former State Historic Preservation Officer for the State of New Mexico considered the sanctuary district as ineligible for inclusion in the National Register of Historic Places. We have had to make two trips here to meet with the keeper of the Treasury as well as the National Advisory Council on Historic Preservation. They deemed the tribe's input as very meritorious, and they actually declared the site as an eligible site.

Given that, we have actually had to work with the same exact executive director for the State Historic Preservation Office of New Mexico to look at the archeological sites and to deem those within the classification system of archeological sites under criteria A, B, C, and D. Most of those archeological sites are classified as D, where it specifically states that it is of informational value. In no place did they even consider criteria A or B, which means—and I quote at this point in time—"Criteria A, places important to events in history, critical to a culture's history." I will show—and I beg the committee's permission to submit this map of the logical mine area

that has depicted the 5-year mining plan and the areas of disturbance for the proposed coal mine. It has here a lot of numbers and a lot of dots. Each of those number and each of those dots are a proposed surface visible archeological site.

It is very critical, and these were obtained under the Freedom of Information Act, so these are public information. The significance behind this map is indicated and predicate on our tribe's Zuni Cultural Resource Enterprises. We have an archeological clearance company that has been in business for 20 years doing business with New Mexico State, the Federal Government, the Navajo Nation, the Hopi Nation, and our own tribe. They have 20 years of experience where they have gone out in the whole Four Corners area, excavated archeological sites.

Their experiences indicate that, depending on the archeological classification of a site—and I remind you, there are a lot of numbers and a lot of dots—each of these are sites within the logical mine unit. Some of these numbers indicate that is identified as a site related to a particular time period. You're talking at the "paleolithic" Indian period, the archaic period, the pit structure of early Pueblo and later Pueblo. If you look at these archeological sites and look at the classification system that is promulgated by the State of New Mexico, some of these sites are classified as "paleolithic" Indian, which means that there is a low probability that you're going to find 5 to 10 human remains when you excavate that particular site with that classification.

Contrast that with the probability—and there are a lot of sites. There are over 600 sites identified in this mine area. Five hundred of those are probably within the late Pueblo or early Pueblo periods. There is a very high probability, based on our experiences—on-the-ground, 20-year experience where we have done excavation—there is a very high probability that you will find 800 to 500 human remains in one of those sites.

Given that, this area would probably harbor, if these were excavated and strip mined, thousands of human remains. That is an abomination to our tribe, on behalf of all the southwest tribes.

The driving force behind that is New Mexico's own publication for the Mining and Minerals Division. This is a copy of a map of all the coal fields in the area. This is the San Juan Basin. The Zuni Salt Lake is one of those fields. That's the driving force for a lot of these activities.

As I stated before, some of the areas that we're talking about are the sacred pilgrimages by different tribes. We have documented the Hopi Nation, the Zuni Nation, and the Acoma Nation's Salt Lake pilgrimage trails. Those will be bisected by the proposed railroad corridor. I don't believe that there has been any mitigation that has been promulgated within this process.

To that extent, we again re-emphasize to this committee that the process and the rules and the name of the game have been played by this tribe, yet we have not managed to stop the mine, simply because mitigation is the end-all under any of these three acts that I have cited.

We need to move to a different category where you have absolutely no adverse effects, no impacts should tribes deem that.

I'm glad that the vice chairman asked the question of the previous panel, "Is there ever an incident where a decision by the Secretary to oppose and stop a mine?" There has never been any. We assume and we hope that we will see that in the near future.

It is especially critical because traditional cultural properties for a lot of our tribes is the understanding that it is our collective history, it is the oral history of a lot of tribes. We consider every one of those archeological sites as a traditional cultural property for our tribe. Why? Because it is our recordation, it is our documented history of the wanderings and the origins of our Zuni people. Our origin stories talk about when we emerged from the Grand Canyon area, where we broke into four different bands. One group went south toward Land of the Everlasting Sun through South America, Central America. We have never seen those brothers come back. The other three have circled the Mesa Verde area, the Monument Valley area, and have come back to present day Zuni. The two remaining ones went as far as the Great Plains and have come back. And the current one, the third one, is the one that we identify with.

Those are our history. Those archeological sites are our history book, so to speak, and to that end I beg this committee to make sure that we up and remodify the National Environmental Protection Act so that it is more sensitive to sacred sites. We need to beef that up.

We must also create a new section of the National Historic Preservation Act so it is not a retrofitting of protecting historic architecture. We need to create a subsection that actually looks at archeological sites as deemed by the necessary American Indian tribes, hopefully with the consultations that our previous panel have been talking about as being promulgated right now.

We must also look at the executive orders. Those are good, but they are absolutely toothless paper tigers. It depends on the President who is in there who believes here and here and consolidates those to make it meaningful. I think we need to put more teeth behind that.

On that note, I would like to beg the committee's indulgence by submitting these three pieces of paper that I can assure you are free of any antlers—the map with all the archeological sites, this map of the State of New Mexico and Arizona where the proposed coal mine areas are, and a copy of all the religious pilgrimage trails.

On my Zuni people's behalf, I thank you very much.

The CHAIRMAN. Without objection, your documents will be received by the committee and made part of the file.

Mr. BOWEKATY. Thank you.

The CHAIRMAN. I thank you very much, Governor. May I assure you that the purpose of this hearing is to determine whether we need new rules, new regulations, and new legislation.

Mr. BOWEKATY. Thank you.

[Prepared statement of Mr. Bowekaty appears in appendix.]

The CHAIRMAN. I thank you both very much, and we will have the next panel coming up.

The next panel consists of the president of Morning Star Institute, Suzan Harjo; the executive director of the Black Mesa Trust

of Arizona, Vernon Masayesva; and the Inter-Tribal Sacred Land Trust of Tulsa, Robert W. Trepp.

I'm sorry. Governor and President, we'd like to ask a few questions if we may.

Senator CAMPBELL. Just one or two. If you have some first, go ahead, Mr. Chairman.

The CHAIRMAN. No.

Senator CAMPBELL. You don't have to all come back to the table. You can just sit close by there.

The CHAIRMAN. I just want the record to show once again, President Jackson, no one ever consulted with you?

Mr. JACKSON. No, Mr. Senator; we were not consulted with at all. We went through the process, like I said, the legislative process, the correct legislative process that we requested. We went through all that, years and years of it. In the end, like I said, a decision came down in support of us, but when the new Administration came on we got word from Gale Norton—I think it was a four-line letter to our attorney—that she rescinded that decision and reversed it.

The CHAIRMAN. It was a letter from the Department?

Mr. JACKSON. Gale Norton to our attorney.

The CHAIRMAN. It was——

Mr. JACKSON. The record of decision, the four-line letter changing the decision, denying it—rescinding it. But before that, you would think that she would have consulted with us, but no consultation ever took place with our tribe and our people.

The CHAIRMAN. But it was not sent to you?

Mr. JACKSON. No; it wasn't. It wasn't sent directly to our tribe, our people that was impacted by the decision. No. We got it through our attorney. It wasn't sent to her. It wasn't formally provided, she instructs me. She just happened to get it off the Internet, I guess.

The CHAIRMAN. Governor, may I call upon you and your staff to sit down with my staff to work out legislation if such be necessary?

Mr. JACKSON. We would be privileged.

The CHAIRMAN. Mr. Vice Chairman.

Senator CAMPBELL. Thank you, Mr. Chairman.

The Interior appropriations bill has already gone through committee, but we may be able to introduce something on the floor in conference to at least hold this up for a while until we can involve you.

Mr. Jackson, Secretary Norton approved the mining permits in late 2001. What actions, legal or otherwise, has the tribe undertaken? Have you filed suit or have you met with Neal McCaleb about this matter?

Mr. JACKSON. We have met with Neal McCaleb and members of his staff. We talked to them of the importance of us meeting with his boss, Gale Norton, to discuss the decision she made. We told him it is imperative that our people meet with her, our council, but at this time we are still trying to get a meeting with her, but to no avail at this time.

Senator CAMPBELL. Okay.

Mr. JACKSON. It is very disturbing, like I said earlier, when somebody makes a drastic decision against your people, your history, without even talking to you.

Senator CAMPBELL. What would your view be if—the Secretary has to make a lot of difficult decisions and balance a lot of interests. She has the trust responsibility to protect the Indian resources, too. What would your view be if there was a coal project proposed by neighboring tribes, proposed by another tribe but the first tribe objected under whatever grounds? Perhaps that was a sacred site to them in past history or something of that nature? In other words, it really pits one tribe against another when one wants to develop the resources and another one might say that that was a sacred area, even though it is not within their reservation. Do you have a view on that?

Mr. JACKSON. Well, we, as our brothers and sisters across the country, if another tribe for some reason wanted to do it, it's not our tribal stance to get in the way of any other tribe, what they want to do with their land, their sacred sites, if you say it's sacred sites. But if there is a reason for them to do it, it has to be a very strong reason that they're completely without resources to feed their people or education, for health and welfare, for housing. That's why some tribes will do it. But our tribe will never do that. Our Quechan Nation will not set one dollar, one nickel, one penny for that coal mine that they want to operate there.

Senator CAMPBELL. Good.

Mr. Bowekaty, I didn't want this hearing to paint all mining as all bad, because in fact in many cases it has helped Indian tribes. They have sort of a mixed review, you might say, in American history of some who believe mining is to spoil the environment and others believe that almost all new wealth that has made this Nation strong came from mining in one form or another. And even Indians, themselves, have been mining for a thousand years. If you go to Pipestone, Minnesota, they still mine, but it is not done for profit, it is done for ceremony—although I guess now perhaps it is done for profit. They make some souvenirs out of that pipestone. But Indians, themselves, are not exactly new to mining.

I wanted to ask you about that map. You pointed out maybe 600 points on that map you showed us. Are all of those off Zuni Reservation?

Mr. BOWEKATY. A large percentage of those are off Zuni Reservation; however, the upper northwest quadrant of that map that I showed you are Federal lands. The rest are a combination of State lands, as well as private lands. But our Zuni Salt Lake Reservation is 12 miles from that area.

Also, to expound on what you just mentioned, our tribe has never deemed extracted mining as a total ban. Our tribe looks at the impacts to sacred areas. That is the only reason why the Salt Lake is such a vital and dear project for us, because it directly impacts our sacred site. Otherwise, we would have no objections.

Senator CAMPBELL. Thank you. Last question—in your written testimony, is the legend of Salt Lake and Salt Mother in your written testimony so they can be part of the record?

Mr. BOWEKATY. No.

Senator CAMPBELL. Thank you. No further questions, Mr. Chairman.

The CHAIRMAN. Thank you very much.

And now may I call upon the president of Morning Star Institute, Suzan Harjo.

STATEMENT OF SUZAN HARJO, PRESIDENT, MORNING STAR INSTITUTE, WASHINGTON, DC

Ms. HARJO. Thank you, Mr. Chairman and my Cheyenne brother and chief, Mr. Vice Chairman.

I'm Cheyenne and Hodulgee Muscogee and I'm here because the white people didn't kill all my ancestors and we have sacred places because the white people did not destroy all our sacred places. We have a rich legacy from our people and we have an obligation to our ancestors and to our coming generations to protect those places where our people historically and traditionally have gone and continue to go for solace, for healing, for commemoration, for vision questing, for emergence, for burials, for mourning, for all of these purposes.

We have been controlled for more than 1 century as Native Peoples by regulations, first by the civilization regulations that drove so many of our Native nations' traditional religions underground and nearly two-thirds to the point of extinction.

The most endangered species in the United States of America are traditional Native Peoples, and it is so distressing to hear the ignorance and the arrogance, however kindly spoken and however well-meant, from the Administration witnesses earlier. The notion that our sacred places just need to be taken into account and that they lack guidance about sacred place protection is startling. The *Lyng* Decision of the Supreme Court which said that the American Indian Religious Freedom Act and the First Amendment do not provide a cause of action for us to get into court to protect our sacred places or defend them against desecration or destruction also says something very important in the way of guidance. It says that there shall be no impact or no impairment audiolly, aurallys, visually, or physically. That covers a lot of territory—literally a lot of territory. Everything that you have heard today involves an impact or an impairment that affects the site or sound or smell or physicality of tangible places involving living cultures, living traditional religions. So it is stunning to hear that there is guidance that needs to be gotten.

I think that the Interior witnesses must have read the *Lyng* Decision only to the point where it said "no cause of action" and did not read what they need to do and how they need to take into account the American Indian Religious Freedom Act and the First Amendment when it comes to protection of our sacred lands.

Be that as it may, we need a cause of action. We need something to protect our sacred places, because we see that the Department of the Interior and most Federal agencies are not going to do it on their own. We need legislation that provides a way for us to defend ourselves and to get in the courtroom door. That's very important. We need legislation that is a Native American statute to protect even the information about these sacred places. We need further guidance on the existing law, Native American Graves Protection

and Repatriation Act, for example, because the people who are implementing it have gotten horribly off track.

There was a statement made earlier today that the culturally unidentifiable human remains are those remains that cannot be identified with a federally recognized tribe. That is such an ignorant reading of the act. We're not dealing with federally recognized tribes, we are dealing with the people who are the relatives of the dead Native people who are in the possessions of these Federal agencies and museums and educational institutions—Native Hawaiians, Native Alaskans, non-federally recognized tribes, federally recognized tribes. The ignorance in that statement, alone, is stunning to me.

The guidance is in the law. The guidance is in specific laws. For NAGPRA, where we have to look is to the dozen years of implementation since its enactment. We can get a lot of information about how the Department of the Interior might implement future legislation on sacred lands and how we have to tie down everything so it is not left up to regulatory fiat or just to customary practice, because if it is left up to customary practice more and more of our people are going to be under attack as we have been for more than a century, and more and more of our sacred places are going to be destroyed, and fewer and fewer of our dead relatives are going to be protected.

We understand that the Department of the Interior, the National Park Service, is permitting and perhaps funding studies on the culturally unaffiliated human remains. I heard the response earlier. We have taken some steps as a working group on culturally unidentified human remains to find the facts of this matter. And, our legal counsel, Walter Echo-Hawk of the Native American Rights Fund, has written on our behalf on July 11 to the Department of the Interior asking for any studies that are underway to stop, asking for any information about those studies to be given over to us under the Freedom of Information Act, asking for the regulations on culturally unidentifiable human remains that are in the works be halted until certain steps are taken, like the Park Service completing a task it hasn't completed since 1995 in listing who has what culturally unidentified human remains.

These are not remains that cannot be identified. They could be identified for the most part, we believe, to living Native Peoples if we knew who submitted them, who has them, where they are, under what circumstances did they acquire them, how are they keeping them. If we only had that information, which the Park Service is already required to prepare and to make public, we could help with that process of changing them from the category of unidentifiable or unidentified to culturally affiliated.

We have heard various estimates from six months to two years that it will take the Park Service to finish that task. Until such time as they finish that task, they should not issue these regulations, because the regulations turn on that information being in place. They don't even know what is in that category that they're issuing the regulations about.

Having delayed by so many years to this point, a little more delay to satisfy the Native interest should not hurt.

Also, these regulations flip NAGPRA on its head by saying that the scientists are in control of the Native human remains, and the repositories where they are now, the Federal agencies and museums, can make the discretionary decision as to whether or not to return or keep the human remains. NAGPRA is so clearly a Native American statute—and I really appreciate the chairman's clarification of that earlier today. That probably comes as news to some of the Interior witnesses, and I hope they take it to heart, because they have actually said, some of them, with straight faces, that NAGPRA is not a Native American statute.

We beg you to help stop these studies that are going on on our ancestors and our relatives and to stop the destruction of documents that is taking place, to instruct Interior that NAGPRA documents are trust documents, that NAGPRA does involve trust assets. It involves people and material who are Native Peoples, and the Department of the Interior has a trust relationship there and an obligation, and they have to live up to that.

Thank you for working with us on laws that you have already implemented to make sure they get back on track, and then working with us to develop new legislation that will try to do the right thing by protection of sacred lands.

Thank you so much, Mr. Vice Chairman and Mr. Chairman.

The CHAIRMAN. Thank you very much, Ms. Harjo.

[Prepared statement of Ms. Harjo appears in appendix.]

The CHAIRMAN. Now may I recognize Mr. Masayesva.

STATEMENT OF VERNON MASAYESVA, EXECUTIVE DIRECTOR, BLACK MESA TRUST, KYKOTSMOVI, AZ

Mr. MASAYESVA. Thank you, Mr. Chairman and Mr. Vice Chairman. I am from Hopi. I am the director of a new environmental organization called Black Mesa Trust, and I was the former chairman of the Hopi Tribe.

Before I go into my testimony, I would like to support what my brother from the Zuni told you. His recommendations are excellent. I completely support what he says, and I am thankful to my brother, and for that I will compose you a song, my brother.

I am a descendent of [Native word], the ancient people that came and finally settled in what is now called Northern Arizona. My ancestors, like your ancestors who came to American in search of a new life, also came to the fingertips of Black Mesa in search of a new beginning. I am here to address the failure of the surface mining, reclamation, and enforcement to fulfill their trust responsibility to the Hopis and to our neighbors and brothers and sisters, the Navajo people.

For more than 10 years OSM has allowed the world's largest mining company, Peabody, to take billions of gallons of pristine groundwater and billions of gallons more of surface water from Black Mesa without conducting a complete and objective assessment of the environmental and cultural impacts of such a loss.

OSM's failure is all the more inexcusable because water is so sacred and scarce in the high desert countries of northern Arizona and all the more harmful because water is so sacred to us.

OSM's irresponsibility has left our way of life seriously threatened. A discussion of how OSM has responded to our recent con-

cerns about the loss of water, particularly, or, more accurately put, how OSM has failed to respond to those concerns should begin with some understanding of how much water means to my people. Only with this understanding can one begin to appreciate the depth of the wounds OSM's actions and inactions have inflicted.

For centuries, the land and waters of Black Mesa have been central to our culture, religion, and likelihood. In the Hopi view of life, all plants, animals, birds, fishes, insects, human beings, exist in a delicate natural and spiritual balance. Hopi people believe that earth, itself, is alive; that water is the earth's life blood; and that life on Earth comes from and returns to water.

When my ancestors settled on Black Mesa, they were given three things by which to live by a deity we call Ma'saw, who is the guardian of Mother Earth. We were given an ear of corn, a planting stick, and a gourd of water. With these simple tools, the Hopi entered into a covenant with Ma'saw to live a simple life of reverence and respect for the land. They agreed to help steward the land. Thus, the Hopi people not only drink and bathe in the pristine waters of the Navajo Aquifer, it is also sacred to us. It is used to worship and to water crops.

Corn, for example, has such spiritual meaning that it is the first thing that touches a baby's lips and it is the bed on which the bodies of those who have died are laid for their journey back to the water world from which all life on earth has sprung.

As important as the water is, it is by no means the only cultural and environmental concern we have about the operation of the Black Mesa Mine. The Hopi and Navajo have a number of concerns that were set forth in detail in a comment submitted to OSM by Black Mesa Trust on April 29th of this year. Copies of those comments have been provided to members of this committee.

Among those concerned is the withholding of 250 million gallons of surface water impounded by Peabody. The loss of surface water was addressed by my friend and president of Black Mesa Trust, Leonard Selestewa, during a hearing held before this committee on June 4.

OSM has never been short of words in proclaiming a commitment to protect the interests of Indian people. In a directive issued on March 28, 1996, OSM describes in great detail its trust responsibility to Indian people. OSM's director recognized that the United States "has charged itself with moral obligations of the highest responsibility and trust. At a minimum" OSM goes on to say "it has to protect tribal lands, assets, resources, and treaty rights, as well as a duty to carry out the mandates of Federal law with respect to American Indians and Alaska Native tribes."

As the regulatory authority for surface coal mining and reclamation operations located on Indian lands, and as a Federal agency of the Department of the Interior, OSM acknowledges its trust responsibility to "ensure that the lands and trust resources of Federally recognized tribes and their family members are identified, conserved, and protected." I repeat that—"identified, conserved, and protected," not just mitigated.

Unfortunately, OSM's actions have not lived up to its rhetoric. At no time in more than ten years has OSM conducted a full and fair assessment of the cultural and environmental impacts of Black

Mesa Mine. To begin with, OSM has not approached an impact assessment using the values and cultural perspectives of the people it claims to protect, but rather from the utilitarian perspective of the company it is supposed to regulate.

For example, OSM does not view groundwater and surface water as part of the integrated whole of the living Earth. It sees water contained in a separate inanimate compartment. OSM does not view water drawn from the Navajo Aquifer as sacred, but as a commodity whose value lies in its utility. Consequently, OSM does not see the that draw-down of an aquifer has profound religious and cultural impacts. Similarly, OSM does not look at how the mine's 200 water impoundment affects the flow of surface water to the Moenkopi farmers at the foot of Black Mesa.

OSM's analysis of environmental and cultural impacts is seriously flawed on a more technical level, as well. OSM now concedes that the USGS groundwater model it has used for years is inaccurate and has now been rejected. The USGS model provides no basis to rationally assess the impacts of pumping a billion gallons of water each year from the Navajo Aquifer.

Even in the face of this shortcoming, OSM disregarded our view, our science, the way we looked at the aquifers. We say that people are connected to the land and water. Hopi practitioners of Hopi science see sacred springs as passageways to the world from which we came and eventually return. The springs are breathing holes. When they stop breathing, the water stops flowing. For years, Hopi farmers and ranchers who walk the land have been saying what hard data now shows. Large-scale withdrawals have seriously damaged the Navajo Aquifer.

OSM's criteria known as "cumulative hydrologic impact assessments," criteria for CHIA show serious damage to the aquifer. Springs now produce far less water. Some have completely dried up. Monitoring wells show significant lower water table. Moenkopi Wash that used to run all year long is now completely dry, completely dry.

Despite evidence of serious damage as shown by OSM's own criteria, the Agency has taken no action towards restoring the health of the Navajo Aquifer. OSM's regulations require a mine applicant to submit a reclamation plan, yet OSM has never—and I repeat, never—required Peabody to submit a reclamation plan for the aquifer as part of its mine application. The agency has offered no explanation for its failure to take any action to protect and restore our water.

Just as troubling is the agency's failure to include us in a meaningful discussion. In an application submitted by the Peabody Mine, it describes the location of the mine with terms such as "township, range, and sections," which are meaningless to most Hopi and Navajo people. The application, itself, contains more than 1,000 pages, much of it in highly technical jargon. The application was deposited at just two locations on Black Mesa, two hours or more by care from some of the villages, assuming every person living on Black Mason would have access to an automobile.

The application has never been summarized or translated into Hopi and Navajo languages, despite an executive order requiring agencies to take steps to ensure that persons with limited English

proficiency can meaningfully access the Agency's programs and activities.

OSM did not deny its obligation to try to reach out to Indian communities. Instead, the reason it offered for not translating public notices and other vital documents relating to Peabody's mine application is not, in their view—I'm sorry, they denied this saying that in their view "Hopi is not yet a written language." This response is astonishing, given the fact that Hopi has been written since the 1850s and a number of books have been written in Hopi, including a major Hopi/English dictionary that took a Hopi scholar 15 years to complete.

The comment period also started during the month of February, which is the month of [Native word] or purification, which is the last of the three major religious ceremonies held on Hopi every year. During February, all political meetings are suspended, including tribal meetings, so therefore if we had commented we would have been in violation of our traditional laws.

More recently, on June 19, 2002, OSM wrote to me saying that the Agency has decided to call all public hearings on Peabody's mine application to mine additional 189 million tons of coal and to increase pumping by 37 percent.

Weeks ago, OSM had agreed the hold five such hearings later this summer. The reason OSM gave for calling off the hearing was that on May 14th Peabody had submitted a letter claiming to have "identified" an alternative source of water for the coal slurry and requests that the public hearing be put off.

No information is provided showing that such an alternative source is even feasible and is going to be feasible and cost effective. In fact, an application submitted to the California Public Utility Commission by Southern California Edison, which operates a power plant using coal from Black Mesa, states that, "The feasibility and cost of the alternative is still being investigated." Nevertheless, OSM decided to renege on its commitment to hold public hearing without consulting the people of Black Mesa.

Black Mesa Trust responded to OSM on July 6. We have demanded that the public hearings move forth. To date, we have received no response.

As things stand now, the people most affected by Black Mesa mines have been shut out of the public participation process. As a result, the depletion—and, in my personal opinion, an illegal depletion—of Federal trust assets, coal and water, continues.

In conclusion I leave with you the same question my friend Leonard Selestewa left you with on June 4. Why? Why? Why? Why has there been such a failure by all agencies of the Federal Government who have trust responsibilities failed to correct the problem? Why in more than ten years has there not been a comprehensive and fair assessment of the cultural and environmental impacts of the Black Mesa Mine? Why has OSM been more responsive to a company that it is supposed to be regulating than to the people who it is obligated to protect?

I ask of Secretary Norton: Why are you continuing to ignore a provision in the Hopi/Peabody contract which states that if the waters of Black Mesa are endangered, the Secretary has discretionary powers to direct the mining company, if they want to continue the

mining operations using slurry operations, to find an alternative water source at its own expense, not at the taxpayers' expense?

Senator CAMPBELL. Mr. Masayesva, we will have to conclude the hearing. I'm sorry. Senator Inouye had a conflict that he already had to leave to and I'm already overdue, too, but your complete written testimony that you didn't finish will be included in the record.

[Prepared statement of Mr. Masayesva appears in appendix.]

Senator CAMPBELL. I have no questions, but I am gratified to see that at least one person from the Administration stayed to hear your testimony. Too often people from agencies come and make their statement and they leave and they don't hear from the opposing view. Hopefully, the message that you put forth in your testimony will be taken back.

Mr. Trepp, I'm sorry to say that you won't be able to testify, but if you will give us your written testimony we'll study it copiously.

Mr. TREPP. Thank you, sir.

[Prepared statement of Mr. Trepp appears in appendix.]

Senator CAMPBELL. I think, in my own view, the big difference between everybody else in this country and American Indians is that everybody else came here from somewhere else. They had nothing to lose and everything to gain by coming here. It was called "upward mobility" in sociology terms. Only the American Indian had everything to lose and nothing to gain, and they have lost almost everything, with a little bit of land base left, and the thing that they hang on to the most is their religious beliefs and the memories of their ancestors. It just seems terrible to me that we would take those away through some bureaucratic method because of opportunity for profits. I know Senator Inouye agrees with me that that's just plain wrong, and we've got to take another look at these issues or get the Administration to take another look at them.

So I commit that to you and appreciate your testimony.

The hearing record will stay open for 2 weeks. If anybody in the audience wants to add something in written form, please submit that and we'll include that for 2 weeks.

Thank you very much for being here today. With that, the committee is adjourned.

[Whereupon, at 12:20 p.m., the committee was adjourned, to reconvene at the call of the Chair.]

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

PREPARED STATEMENT OF MALCOLM B. BOWEKATY, GOVERNOR OF THE ZUNI TRIBE

On behalf of the Zuni Tribe, I want to thank Chairman Inouye and Vice Chairman Campbell for convening this Oversight Hearing regarding the U.S. Department of the Interior and the protection of sacred places. This is an important subject to American Indians and Alaskan Natives, and one that has not been given the National attention it deserves.

The Zuni Salt Lake is a sacred place. Located southeast of our Reservation in west central New Mexico, this saline lake is a unique geological feature and home to our *Ma'lokyattsik'i,* Salt Mother. For centuries, indigenous tribes from the Southwest have made pilgrimages to the Zuni Salt Lake to request spiritual guidance and rain, make offerings, and collect salt for ceremonial, ritual and domestic use. The surrounding land has always been respected as a sanctuary zone, where waiting tribes put weapons down and shared in the sanctity of the Salt Mother. just this past weekend, our brothers and sisters from the Hopi, Yaqui, Pueblo, Xicano, Navajo and others joined us in a 260 mile run from Hopi and Phoenix to Zuni to pay homage to her, as well as to spiritually prepare us for this testimony today.

The Zuni Salt Lake is in real danger of disappearing. In the late 1980's, the Salt River Project [SRP], an Arizona-based power company, began purchasing land and applying for coal leases from the Bureau of Land Management. SRP proposes to develop an 18,000-acre coal strip mine 10 miles from the Lake. SRP also plans to use up to 85 gallons a minute of water a year for 40 years for mining purposes. Finally, SRP proposes a 44-mile railroad corridor from the proposed mine to the Coronado Generating Station, which would dissect pilgrimage trails used by tribes for centuries. Last month, to the dismay of the Zuni people, the Department of the Interior approved the Life of Mine Plan, which gives Federal Government approval for this project.

Protection of the Zuni Salt Lake and Sanctuary Zone has always rested with the Zuni. In 1976, Senator Domenici from New Mexico testified to the U.S. House Committee on Interior and Insular Affairs and fought hard to have this land given back to the Zuni Tribe: This bill [S. 877] will permit the Zuni Indian people to acquire a shrine that has been theirs for literally centuries. Government intervention and the inequities of history have prevented this great salt shrine from being included in the boundaries of their reservation. This is very important to their way of life, and is presently used by them as part of their religious culture.

Twenty-five years later today, the Zuni Tribe feels that the U.S. Department of the Interior has failed us in its obligations under existing law and trust responsibility to continue to protect this sacred lake and associated cultural resources from destruction.

In 1990, the Bureau of Land Management issued an Environmental Impact Statement (EIS) for the proposed coal mine. This report was flawed scientifically with regard to hydrology and failed to capture the cultural importance of the Zuni Salt Lake. After repeated demands from the Zuni Tribe to then Secretary of Interior Bruce Babbit and others, a supplemental EIS was conducted in 1996. Since its

issuance of this SEIS, at least four major hydrological reports have been produced which invalidate or contradict information contained in the SEIS. Yet after several attempts by the past and current Zuni tribal councils, we received a letter recently from the Office of Surface Mining stating that DOI will base its decision on the 1996 SEIS and feels it not necessary to amend the environmental impact analysis.

That the National Environmental Policy Act (NEPA) is oriented toward *process* rather than *outcome* is a fact that the Zuni Tribe is well aware of. We are thankful that the recently approved Federal Life of Mine Plan contains provisions that somewhat protect the aquifers that feed the Lake. However, it is unfortunate to realize that our tribe had to go through such great lengths and expend resources it does not have to prove to the regulators that the original hydrological studies were flawed and biased toward the coal company. We believe that is not the intent of NEPA nor of the Department of the Interior's implementing regulations. American Indians and Alaskan Natives protecting their sacred places should not have to carry the burden of proof with regard to environmental impact analysis for projects sponsored by Federal agencies. The Federal Government must be more objective in its decisions and not bend toward industry.

As we understand it, the National Historic Preservation Act of 1966 was originally created to protect architecture, not sacred places. There are subsequent problems with retrofitting this law when applying it to the protection of sacred places. For example, with regard to the protection of archaeological sites and traditional cultural properties around the Lake, mitigation has meant digging, recording, and report writing. The Zuni Tribe feels that protecting the information of a site and then destroying it is not same as protecting the site itself In other words, cultural resources are sacred not for the information they contain, but because they have been placed their by our ancestors for a purpose and should not be disturbed nor destroyed. This concept is very difficult to convey to Federal agencies charged with compliance under the National Historic Preservation Act using standard western methodologies. A quick glance at eligibility requirements for inclusion in the National Register of Historic Places (36 CFR 60.4) will reveal that most sites are eligible under criteria D, information value.

This situation is exacerbated when applying scientific inquiry to burials and associated funerary objects. Needless to say, the Zuni Tribe finds it impossible to rationalize the displacement of our ancestor's burials for the sake of making money. Therefore the Zuni Tribe and other culturally affiliated tribes are extremely concerned with the desecration that will occur, given the density of Puebloan archaeological sites recorded in the mining site and the nature of strip mining. Coupled with the fact that the implementation of the Native American Grave Protection Repatriation Act (NAGPRA) has had limited success with regard to actually protecting buries from desecration, we are struggling to come to a resolve on the issue with the Federal Government and the coal company.

While it is true that section 106 of the National Historic Preservation Act and the National Park Service Bulletin 38 outline methods of consultation with American Indians and Alaskan Natives to protect cultural resources, the Zuni Tribe feels that the process does not work effectively. Navigating through the consultation process for this undertaking, the Zuni Tribe found itself in a bind when it comes to the release of esoteric information. While the Federal agencies were very sensitive to our need to protect esoteric information, it was still difficult for us to convey the importance of specific cultural resources without giving away information that was esoteric. Also, a genuine sense of trust from the Federal Government is missing from the consultation process, as we attempt to explain that a plant is sacred to us without stating why it is sacred to us.

The Zuni Tribe understands the difficulty the Federal Government has in dealing with competing interests. One of the major obstacles the Department of the Interior has in protecting sacred sites like our Salt Lake sterns from its organizational structure. The Office of Surface Mining has a mission to regulate mining; the Bureau of Land Management has a mission of leasing Federal resources; and the Bureau of Indian Affairs has a mission to protect resources held in trust for American Indians by the United States Government. Since these three offices are housed under one Department charged with making a decision either way on a particular issue, it stands to reason that one mission will override the other. This is evident in the number of disagreements and failed negotiations that took place within the DOI concerning whether to approve or disapprove the Life of Mine Plan.

Engage tribes meaningfully in NEPA, NHPA and other processes early on. This sentiment was echoed in the recommendations by the National Research Council on *Hardrock, Mining on Federal Lands,* commissioned by the U.S. Congress in 1999 (National Academy Press, Washington DC, 1999, pg. 70).

Create legislation similar to what Congressman Rahall is proposing in his draft *Native American Sacred Lands Act.* Legislation is needed due to the fact that the existing Executive Orders on the subject do not have the weight of law, existing laws are not working, and sacred sites are being destroyed at an alarming rate without the tools American Indian and Alaska Native governments need to engage industry and governments.

Reorganize the decisionmaking process within the Department of the Interior to better facilitate American Indian and Alaskan Native concerns over sacred places.

Thank you very much for the opportunity to speak with you today on this most important topic. The Zuni Tribe is willing to work with your Committee and others in any way we can. E'lah:kwa.

PREPARED STATEMENT OF CHRISTOPHER KEARNEY, DEPUTY ASSISTANT SECRETARY, POLICY AND INTERNATIONAL AFFAIRS, DEPARTMENT OF THE INTERIOR

Mr. Chairman and Members of the Committee, it is my pleasure to be here today to discuss the Department's role in protecting Native American Sacred Places. My name is Chris Kearney and I am the Deputy Assistant Secretary for Policy and International Affairs in the Office of the Assistant Secretary for Policy, Management and Budget. I am accompanied today by Stephen Parsons, Hydrologist, Office of Surface Mining; Patricia L. Parker, Chief, American Indian Liaison Office, and John Robbins, Assistant Director, Cultural Resources, Stewardship and Partnerships, National Park Service; and Marilyn Nickels, Group Manager, Cultural and Fossil Resources, Bureau of Land Management.

Executive Order No. 13007, 61 Fed. Reg. 26,771, Indian sacred sites, was issued in 1996. The Order requires Federal land management agencies to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites. Where practicable and appropriate, implement procedures to ensure reasonable notice is provided of proposed actions or policies that may restrict future access to or ceremonial use of, or adversely affect the physical integrity of these sites. The Order also requires Federal agencies to consult with tribes on a government-to-government basis whenever plans, activities, decisions, or proposed actions affect the integrity of, or access to, the sites. Each relevant Cabinet agency was required to send an implementation report to the President within 1 year of the Order's issuance.

Coordination of the Department of the Interior's implementation was assigned to the Office of American Indian Trust (OAIT). The OAIT is responsible for ensuring department-wide compliance and overall consistency of the Sacred Sites Executive Order. To assist that Office to communicate with the various bureaus in the Department, an interagency Working Group on the Implementation of the Sacred Sites Executive Order was created, comprising representatives of each departmental bureau, appropriate departmental offices and the Office of the Solicitor.

The Working Group has actively sought input from Tribal representatives on all aspects of the Department's implementation process. The Department asked for Tribal input on the structure, location and content for consultations and hosted three formal discussion meetings between tribal and Federal representatives focusing on implementation from both a procedural and substantive perspective. The meetings were held in Portland, Oregon; Denver, Colorado; and Reston, Virginia in March and early April 1997. Topics at the meetings included: how to conduct meaningful consultation; how and when consultation processes are triggered; how to protect the physical integrity of sacred sites; how to protect the confidentiality of culturally sensitive information; how to accommodate access and use; and dispute resolution.

In October 2001, the Department attended the Sacred Lands Forum in Boulder, Colorado. Through considerable internal review and the dialog with interested participants at the forum, it became clear that we needed to move forward on establishing policies and procedures for protecting sacred lands. At the "Overcoming the Challenges" symposium held on March 20, 2002, which was held as part of the DC Sacred Lands Forum, we announced our intent to reconvene the Department's Sacred Sites Working Group.

In June 2002, each of the Department of the Interior offices and bureaus involved with sacred sites was notified of the plans to reconvene the Working Group and they were asked to assign a representative to the Working Group. Our objective is to renew the momentum within the bureaus for establishing the necessary procedures to carry out our obligations understood in the policy we created and to ensure that

we fully take into account Tribal concerns. It is also our intent, working with the Tribes, to finalize and then to publish these policies and procedures and provide them to Tribes and other interested parties, and then to ensure that implementation occurs in a timely manner. The Office of American Indian Trust is responsible for coordination, logistics and staff assistance within the Department.

The first Working Group meeting occurred on July 2, 2002, in the office of the Assistant Secretary for Indian Affairs. We are in the process of identifying the current status of sacred site management across the bureaus. That will be followed at future meetings with developing management changes and tools to ensure full compliance with the Executive Order. In addition, and as a result of the DC Sacred Lands Forum, on August 14 the Department of the Interior and the Advisory Counsel on Historic Preservation are sponsoring an interagency meeting on sacred lands and cultural resources, under the auspices of the Interagency Working Group on Environmental Justice. These meetings are meant to help bring awareness and enhance coordination of sacred site issues, not just within the Department of the Interior, but government-wide.

This concludes my statement. I would be pleased to answer any questions the committee might have.

STATEMENT OF SUZAN SHOWN HARJO, PRESIDENT, THE MORNING STAR INSTITUTE, FOR THE OVERSIGHT HEARING ON PROTECTION OF NATIVE AMERICAN SACRED PLACES AFFECTED BY INTERIOR DEPARTMENT UNDERTAKINGS, BEFORE THE COMMITTEE ON INDIAN AFFAIRS, UNITED STATES SENATE, WASHINGTON, D.C., JULY 17, 2002

Mr. Chairman, Mr. Vice Chairman and Members of the Committee on Indian Affairs, thank you for holding this series of oversight hearings on the protection of Native American sacred places and for inviting our testimony on the manner in which certain Interior agencies are treating Native American sacred matters.

For most of its long history, the Interior Department has posed a formidable barrier to Native American religious freedom. The Interior of today does not employ the bloody tactics of its past to control Native property and people, but it threatens and bullies toward the same end with regulations and practices that are not a great departure from its shameful legacy. Because Native Peoples still must contend with that legacy, with modern white-gloved racism and with Interior's denial of both, it is important to provide an historical context for the present situation, however briefly stated.

Initially, Interior distributed monies to Christian churches from the "Civilization Fund" that Congress appropriated annually during the 1880s for the "education" of American Indians. Interior then vigorously embraced its task and carved up Indian country into tribal and geographical religious franchises for the churches to "civilize" Indians of all ages in a Christian-only, English-only "education" program. This federally-sanctioned, federally-funded proselytizing morphed into the federal boarding school system that "civilized" Indian hostage students and kept their families in line at home.

These social engineering experiments were part of the overall effort to separate Native Peoples from Native property, which has been a fundamental mission of Interior since its inception nearly 150 years ago. The theory was that, if Native ties to Native traditions, families and nations were severed, Native resistance to gold rushes and land-grabs would decrease and eventually vanish. Indians were confined to reservations and were prohibited from praying or gathering or hunting or fishing in their off-reservation lands and waters, which Interior either claimed for itself and called "public lands" or gave over to non-Indian developers and families as their "private property."

Interior secretaries from the 1880s to the 1930s formalized their assault on Indian traditional religions through the "Civilization Regulations." They made outlaws, prisoners and corpses of Indian people who violated these rules. Violators included those who danced or exercised other traditional, customary activities on the reservations. Indian people were rounded up and imprisoned and starved for leaving the reservations to pray or vision-quest or heal at sacred places or to bury or mourn their relatives on other reservations or in traditional burial grounds off-reservation.

Interior's paramilitary agents worked with the Army and with state militias to keep track of "hostiles" and "ringleaders" and "fomenters of dissent" who violated the "Civilization Regulations" and who could be killed under the color of law for having done so. At the same time, Interior's scientists were destroying myriad sacred places and warehousing Native bodies and property of the dead, while Interior's bureaucrats were permitting developers to do the same.

The "Civilization Regulations" were withdrawn in the mid-1930s. Sadly, their adverse effects were not reversed and, with notable and rare exceptions of sacred places that were returned to Native Peoples, the vast public and private land holdings did not revert to Native ownership or control. Interior continued to impede Native religious freedom, erecting new procedural and actual barriers to sacred places on lands managed by Interior agencies.

The 1978 American Indian Religious Freedom Act (AIRFA) was intended to preserve and protect sacred lands and other religious interests of American Indians, Alaska Natives and Native Hawaiians. Interior opposed providing a cause of action in that law for Native Peoples to defend and protect sacred places, insisting that the agencies can accommodate Native traditional religious interests under existing law. When Interior failed to protect Native sacred places, Native Peoples sought protective legislation in the

early- to mid-1990s. Interior helped kill that legislation.

Native Peoples then sought an executive order to protect sacred places. Interior helped kill its proposed substantive protections, leaving only a minimal restatement of the AIRFA policy, and then insisted that only federally-recognized tribes could be a part of it. This means that the 1996 Executive Order on Indian Sacred Sites draws its authority from AIRFA, but excludes Native Americans who are specifically covered by it -- those non-federally-recognized tribes and Native Hawaiians with traditional religious interests and sacred places to protect – and does next to nothing for those the order purports to serve.

Now, nearly 25 years after enactment of the religious freedom law and more than six years after issuance of the sacred sites order, Interior's agencies still are desecrating, destroying and poisoning Native American sacred places. At the same time, they maintain the fiction that they are protecting the Native religious interests. They take the position that they need no help in taking care of Native American sacred places from Congress, from the courts or from Native Peoples.

Most of the Interior agencies have sacred sites policies, but they are written with scant protections, if any, and ignored more often than implemented. One of Interior's agencies, the National Park Service (NPS), has not even bothered to develop a sacred sites policy.

This failure by NPS is particularly egregious in light of its responsibilities as the lead federal agency for the implementation of the 1990 Native American Graves Protection and Repatriation Act (NAGPRA). As the Committee explores legislative options to protect sacred places, it will benefit from a review of how NPS and Interior have implemented NAGPRA over these dozen years, and what they have done and have not done to protect burial grounds, the dead and property of the dead.

Almost exactly two years ago, this Committee heard from numerous witnesses representing Native and museum interests that the NPS should be removed from its duties as lead agency for NAGPRA. Enclosed is our statement for that hearing, raising specific instances of obstruction of NAGPRA by NPS. In the intervening two years, the performance of NPS has worsened and we again urge the Committee to relieve NPS of its duties as lead agency for NAGPRA and to transfer responsibility for the implementation of NAGPRA to the Office of the Interior Secretary.

The Native people who negotiated the 1989 and 1990 repatriation laws wanted the NPS to be the lead agency for NAGPRA for three reasons:

1) the Bureau of Indian Affairs (BIA), which is the implementing agency for most Native American laws, did not and does not administer programs for non-federally-recognized tribes or Native Hawaiians (although it does serve certain non-federally-recognized Indian individuals), and NAGPRA was intended to and does include non-federally-recognized tribes and Indians and Native Hawaiian organizations and individuals; and
2) the NPS had a progressive cultural resources program for its time, which dealt with Native Americans with living cultures, religions and sacred places, pursuant to AIRFA, irrespective of their recognition by the BIA; and
3) the National Museum of Natural History (NMNH), where Congress placed the repatriation review functions in the 1989 law for the Smithsonian Institution, demonstrated an early unfairness by excluding Native American advocates in favor of non-Natives who were opposed to repatriation.

We were correct in our assessment of the situation at the time we negotiated the repatriation laws. However, the condition in the second point, above, changed dramatically after NAGPRA was signed into law. NPS now balks at fully incorporating non-federally-recognized Indians and Native Hawaiians, treating these Native Americans as if they are not covered by NAGPRA or AIRFA and serving them unevenly, at best. NPS now does what the NMNH was doing in 1990, excluding Native American advocates in favor of those who still oppose and undermine repatriation laws.

It is vital to move NAGPRA from NPS, but not to another assistant secretariat, bureau, agency or service, where other similar problems stemming from self-interest and conflicting interests are likely to arise. We

urge you to advocate that NAGPRA be moved to the Office of the Secretary, which oversees both the federal museums and trust policy issues that bear on NAGPRA.

Some in NPS and perhaps elsewhere in Interior claim that NAGPRA matters are not trust matters and NAGPRA documents are not trust documents, but have not offered any evidence to support this claim. There are those in NPS who claim that NAGPRA is not Native American legislation. NAGPRA is codified at Title 25, along with most of the other laws dealing with Native Americans. It would not be in Title 25 if Congress intended NAGPRA to be something other than Native American law.

These wrongheaded notions undergird current actions that are adverse to Native American interests: 1) potential Interior regulations that treat Native American "culturally unidentifiable" human remains and funerary objects as if they are the property of the federal agencies and museums where they are located at this time and treat NAGPRA as if it were enacted for the benefit of scientists who make their living by studying our dead relatives; 2) possible DNA testing and other studies of "culturally unidentifiable" human remains that may be underway at this time and, if so, are being conducted without legal authority; and 3) destruction of NAGPRA documents during this winter, including repatriation reports, financial records and "Kennewick Man" case files, and possible identification of additional NAGPRA documents for elimination.

I am part of the Native American Working Group for the Return of Culturally Unidentified Human Remains, which was formed during the course of preparing for a meeting on June 14, 2002, at the Arizona State University (ASU) Law School. The meeting was funded by the NPS and was attended by some 30 Native Americans, federal agents and museum representatives on the subject of Native human remains that are categorized under NAGPRA as "culturally unidentifiable."

Seven concerned Native Americans formed the Working Group after receiving the above-referenced information individually and collectively before and during the June 14 meeting. We learned of the destruction of more than a dozen boxes of NAGPRA documents and were informed by NPS that the Interior Solicitor's Office opined that NAGPRA documents are not trust documents.

NAGPRA documents most certainly are trust documents and must be protected under all existing law. We urge the Committee to clarify this point for the Interior agencies. Additionally, we urge the Committee to develop new legislation to protect information about all Native American sacred places and sacred matters in the possession of Interior's agencies and all other federal entities.

Our Working Group also learned that the Bureau of Land Management has an internal policy providing for DNA testing of "culturally unidentifiable" human remains and that the NPS may be aware of ongoing studies being conducted unlawfully by agencies and museums that are subject to NAGPRA. We ask the Committee to help us discover the facts of these matters and, if true, to halt these shameful activities.

Counsel for the Working Group Walter R. Echo-Hawk, who is Staff Attorney with the Native American Rights Fund, sent two letters to Interior on our behalf on July 11, 2002. Copies of those letters have been provided to the Committee for the record of this hearing. One letter requests information in Interior's possession regarding DNA testing or other studies of the "culturally unidentifiable" human remains. The other letter takes issue with any such studies, with the destruction of NAGPRA trust documents and with the premature publication of regulations regarding the Native American remains that have yet to be culturally identified.

The NAGPRA required the federal agencies and museums to submit their inventories, including information about any "culturally unidentifiable" human remains, to NPS by 1995. NPS did not enforce the 1995 inventory deadline and was out of compliance itself. Several years after the 1995 deadline, the agencies and museums received letters of forbearance and new deadlines for their inventories. Today, seven years after the statutory deadline, numerous agencies and museums still have not submitted their inventories.

The NPS is required by NAGPRA to make an inventory of "culturally unidentifiable" human remains, but has not moved energetically to do so. NPS has not compiled the information from most of the inventories

that have been in its possession since 1995. It does not anticipate completing that part of its inventory prior to this fall. It is not known when NPS will receive the rest of the inventories from the agencies and museums that are out of compliance with NAGPRA or how far beyond 2002 it will take for NPS to complete its inventory of the "culturally unidentifiable" human remains.

The NPS provided a grant to the ASU Indian Legal Program and The Heard Museum to conduct meetings and make recommendations on the subject of "culturally unidentifiable" human remains. The first meeting, of Native repatriators, took place from Nov. 30 to Dec. 2, 2001, and resulted in the following recommendations to the Interior Secretary:

1) Culturally unidentifiable Native American human remains are culturally affiliated to contemporary Native peoples, including federally recognized tribes, non-federally recognized tribes, Native Alaskan peoples, and Native Hawaiian people. (Recommendation made by Walt Lara, Yurok Nation; seconded by Alvin Moyle, Fallon Paiute Shoshone Nation.)
2) All Native American human remains and associated funerary objects, including those deemed "culturally unidentifiable," shall be under the ownership and control of contemporary Native peoples. (Recommendation made by James Riding In, Pawnee Nation; seconded by Edward Halealoha Ayau, Hawaii.)
3) All "culturally unidentifiable" Native American human remains shall be speedily repatriated to Native peoples in accordance with procedures to be determined by contemporary Native American groups. (Recommendation made by Clay Hamilton, Hopi Tribe; seconded by Peter Jemison, Seneca Nation.)
4) All scientific study of "culturally unidentifiable" Native American human remains shall immediately cease. (Recommendation made by James Riding In, Pawnee Nation; seconded by Alvin Moyle, Fallon Paiute Shoshone Nation.)
5) The federal government shall be responsible for funding the costs of this repatriation. (Recommendation made by Mary Wynne, Rosebud Sioux Tribe; seconded by Billy Cypress, Seminole Nation.)

These recommendations were made available to an NPS/NAGPRA staff member and to a member of Interior's NAGPRA Review Committee well in advance of the Review Committee's meeting in Tulsa, May 31-June 2, 2002. These recommendations, which were sought by the NPS and developed under the NPS-funded grant, were not made available to the rest of the Review Committee or considered by it. Instead, NPS drafted the objectionable regulations regarding the "culturally unidentifiable" human remains and the NAGPRA Review Committee recommended their publication with minimal discussion and no objection.

It is odd that NPS is rushing to publish the regulations at this time, after delaying and allowing others to delay for so long on the basic information that is needed for its inventory on "culturally identifiable" human remains. NPS and the NAGPRA Review Committee have put the cart before the horse. The logical order of actions would be for NPS: 1) to review the recommendations and the report (which is due on July 31, 2002) of the project it sought and funded; 2) to compile the information it has on the subject; 3) to complete its inventory; 4) to conduct consultations in Indian country on the matter; 5) to draft regulations in keeping with NAGPRA and in light of the consultations; and 6) to publish regulations for comment.

Two museums representatives in the June 14 meeting estimated that most of those human remains reported to NPS as "culturally unidentifiable" could be identified by Native Peoples, if they were privy to the inventory information in the possession of NPS. We agree and are anxious for that information to be compiled and made available, both for identification and for consultation purposes.

We ask the Committee to bring order to this ad hoc, disorderly process, by halting the premature regulations, the destruction of documents and the testing and studies, and by removing the NPS as the lead agency for NAGPRA. Thank you for putting NAGPRA back on track and for helping our ancestors to rest in peace.

Thank you for protecting our sacred places for living Native Peoples and for our coming generations.

SUMMARY OF TESTIMONY OF VERNON MASAYESVA
EXECUTIVE DIRECTOR, BLACK MESA TRUST

THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE YOU TODAY. I AM A MEMBER OF THE HOPI TRIBE AND EXECUTIVE DIRECTOR OF THE BLACK MESA TRUST. I WOULD LIKE FOR YOU TO CONSIDER, FOR A FEW MOMENTS, THE ACTIVITIES OF THE OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT (OSM), SPECIFICALLY ITS BREACH OF TRUST RESPONSIBILITY TO THE HOPI AND NAVAJO PEOPLE LIVING ON AND NEAR BLACK MESA, ARIZONA. I USE THE WORD "BREACH" AND I THINK THAT THE FACTS WILL BEAR ME OUT.

FOR MORE THAN TEN YEARS, OSM HAS ALLOWED THE PEABODY COAL COMPANY TO PERMANENTLY REMOVE BILLIONS OF GALLONS OF PRISTINE GROUND WATER, AND BILLIONS OF GALLONS OF SURFACE WATER FROM OUR LANDS WITHOUT CONDUCTING A COMPLETE AND OBJECTIVE ASSESSMENT OF THE ENVIRONMENTAL AND CULTURAL IMPACTS. THIS BREACH BY OSM IS AN AFFRONT TO THE INDIAN PEOPLE.

THE SCARCITY OF WATER IN THE HIGH DESERT OF NORTHEASTERN ARIZONA MAKES THIS BREACH EVEN MORE INEXCUSABLE. MOREOVER, THIRST AND BATHING ARE NOT THE ONLY

VICTIMS, FOR WATER IS SACRED TO THE INDIAN PEOPLE OF BLACK MESA. IT IS AT THE HEART OF THEIR WORSHIP. IT IS AT THE CENTER OF THEIR LIVES. THIS BREACH OF TRUST THREATENS THEIR LIVELIHOOD AND ENDANGERS THEIR WAY OF LIFE. OSM HAS CARELESSLY EXERCISED ITS DUTY AND HAS FAILED TO COMMUNICATE EFFECTIVELY WITH THE VERY PEOPLE WHOSE INTERESTS THE AGENCY IS OBLIGATED TO PROTECT.

CONSIDERATION OF OSM'S ACTIONS – OR MORE ACCURATELY, INACTIONS -- MUST BEGIN WITH AN UNDERSTANDING OF THE CULTURAL, ECONOMIC AND SPIRITUAL VALUE OF THE WATER ON, AROUND AND UNDER THE BLACK MESA. FOR HUNDREDS AND HUNDREDS OF YEARS, THE LAND AND WATER OF BLACK MESA HAVE BEEN CENTRAL TO THE CULTURE, ECONOMY AND WORSHIP OF THE INDIAN PEOPLE OF BLACK MESA. MY PEOPLE, THE HOPI, VIEW ALL THINGS AS LIVING - THE LAND, THE WATER, THE CROPS AND VEGETATION THAT SPRING FROM THE EARTH (ESPECIALLY CORN), AS WELL AS ANIMALS AND HUMAN BEINGS. ALL EXIST IN A DELICATE, NATURAL AND SPIRITUAL BALANCE. WE BELIEVE THAT THE EARTH IS A LIVING BEING WITH WATER AS ITS LIFE BLOOD; THE LIFE BLOOD FROM WHICH ALL LIFE COMES AND TO WHICH ALL LIFE RETURNS. WE BELIEVE THAT OUR PEOPLE CAME TO THIS WORLD FROM "THE WATER

WORLD." MA'SAW, A DEITY, PRESENTED OUR ANCESTORS WITH THREE GIFTS FOR LIFE ON EARTH: CORN SEEDS, A PLANTING STICK, AND A GOURD OF WATER. IN EXCHANGE FOR THESE SIMPLE TOOLS, THE HOPI PEOPLE ENTERED INTO A COVENANT WITH MA'SAW: TO LIVE A SIMPLE LIFE OF REVERENCE AND RESPECT FOR THE LAND. THEY WERE TAUGHT TO LIVE A SUSTAINABLE LIFE AS STEWARDS OF THE LAND. BENEATH THAT LAND IS THE NAVAJO AQUIFER WITH PRISTINE WATER THAT IS SACRED TO THE HOPI PEOPLE. WATER FOR DRINKING. WATER FOR BATHING. WATER TO GROW CORN, OUR SACRED GRAIN.

FROM THAT SACRED GRAIN WE GRIND CORN MEAL, THE STAPLE FOR THE HOPI PEOPLE. SO SPECIAL IS CORN TO THE HOPI, IT IS THE FIRST THING THAT TOUCHES A NEWBORN BABY'S LIPS AND IT FORMS THE BIER ON WHICH THE BODIES OF OUR DEAD ARE CARRIED ON THEIR JOURNEY BACK TO THE SOURCE OF ALL LIFE - THE WATER WORLD.

AS YOU CAN SEE, WATER IS THE HEART OF HOPI CULTURE, ECONOMY AND WORSHIP. ABOUT THIS WATER, WE HAVE CONCERNS. THE HOPI AND NAVAJO PEOPLES HAVE CONCERNS REGARDING THE OPERATION OF THE BLACK MESA MINE WHICH WERE SET FORTH IN DETAIL IN THE COMMENTS OF THE BLACK MESA TRUST SUBMITTED TO OSM ON APRIL 29, 2002. (COPIES OF THOSE COMMENTS HAVE BEEN

PROVIDED TO MEMBERS OF THE COMMITTEE.) HIGH AMONG THESE CONCERNS, IN ADDITION TO THE PUMPING FROM THE N-AQUIFER, IS PEABODY COAL'S WITHHOLDING OF 250,000,000 (MILLION) GALLONS OF SURFACE WATER EACH YEAR IN THE 200 IMPOUNDMENTS OR DAMS WHICH IT HAS CONSTRUCTED. ON JUNE 4, 2002, MY FRIEND, LEONARD SELESTEWA, APPEARED BEFORE THIS COMMITTEE TO SPEAK OF THE LOSS OF SURFACE WATER RESULTING FROM THESE IMPOUNDMENTS. I DIRECT YOUR ATTENTION TO HIS COMMENTS AND MERELY STATE THAT THE IMPACTS ARE SIGNIFICANT.

WE HAVE LEARNED OVER THE YEARS THAT OSM IS LONG ON WORDS PROCLAIMING A COMMITMENT TO PROTECT THE INTERESTS OF INDIAN PEOPLES, BUT SHORT ON ACTION. IN A DIRECTIVE ISSUED ON MARCH 28, 1996, OSM DETAILED ITS TRUST RESPONSIBILITY TO INDIAN PEOPLE. OSM'S DIRECTIVE RECOGNIZED THAT THE UNITED STATES "HAS CHARGED ITSELF WITH MORAL OBLIGATIONS OF THE HIGHEST RESPONSIBILITY AND TRUST." "AT A MINIMUM," OSM WENT ON TO SAY, "IT IS A LEGALLY ENFORCEABLE FIDUCIARY OBLIGATION ON THE PART OF THE UNITED STATES TO PROTECT TRIBAL LANDS, ASSETS, RESOURCES AND TREATY RIGHTS, AS WELL AS A DUTY TO CARRY OUT THE MANDATES OF FEDERAL LAW WITH RESPECT TO AMERICAN INDIANS AND ALASKA NATIVE TRIBES." Dept. Of Interior,

Office of Surface Mining Reclamation and Enforcement Directive System, 18 Reg. 1, 2 (March 28, 1996). "AS THE REGULATORY AUTHORITY FOR SURFACE COAL MINING AND RECLAMATION OPERATIONS LOCATED ON INDIAN LANDS AND AS A FEDERAL AGENCY OF THE DEPARTMENT OF THE INTERIOR," OSM ACKNOWLEDGED ITS RESPONSIBILITY TO "ENSURE THAT THE LANDS AND TRUST RESOURCES OF FEDERALLY RECOGNIZED INDIAN TRIBES AND THEIR FAMILY MEMBERS THAT MAY BE AFFECTED BY ADMINISTRATIVE AND REGULATORY ACTIONS ARE IDENTIFIED, CONSERVED AND PROTECTED." *ID.* AT 3.

UNFORTUNATELY, OSM'S RHETORIC REMAINS HOLLOW. FOR OVER TEN YEARS, OSM HAS FAILED TO CONDUCT A FULL AND FAIR ASSESSMENT OF THE CULTURAL AND ENVIRONMENTAL IMPACTS OF THE BLACK MESA MINE. RATHER THAN USING THE VALUES AND CULTURAL PERSPECTIVE OF THE PEOPLE IT CLAIMS TO PROTECT, INSTEAD OSM VIEWS THOSE IMPACTS FROM THE UTILITARIAN PERSPECTIVE OF PEABODY COAL. OSM CLEARLY APPEARS BIASED TOWARD PEABODY, IN BREACH OF THE UNITED STATES' PROMISE TO THE HOPI PEOPLE.

AS AN EXAMPLE OF ITS FAILURE TO UNDERSTAND OUR CULTURE, OSM DOES NOT VIEW GROUNDWATER AND SURFACE WATER AS PARTS OF THE INTEGRATED WHOLE OF A LIVING EARTH. INSTEAD, OSM'S

VIEW IS THAT WATER IS CONTAINED IN A SEPARATE, INANIMATE COMPARTMENT. THIS POSITION IS IN DIRECT CONTRADICTION TO THE CONCEPT OF "CONJUCTIVE USE" ACCEPTED BY THE UNITED STATES SUPREME COURT IN THE CASE OF *KANSAS VS. COLORADO*. THE CONCEPT OF CONJUNCTIVE USE RECOGNIZES THAT SURFACE AND GROUNDWATER ARE INTERCONNECTED, SEPARATED ONLY BY VARYING DEGREES OF THE PERMEABILITY OF ROCK.

FURTHER TENSION IS CREATED BY THE DIFFERENCES BETWEEN THE HOPI AND THE OSM VIEW OF THE PURPOSE OF WATER CREATES FURTHER TENSION. OSM CALCULATES WATER AS A COMMODITY WHICH CAN BE VALUED BY ITS UTILITY. THAT SAME "COMMODITY" IS, TO THE HOPI PEOPLE, NO LESS THAN THE SOURCE OF LIFE. AS A CONSEQUENCE OF THIS CONFLICT OF PERCEPTION, OSM HAS REFUSED TO ACKNOWLEDGED THAT THE DRAWDOWN OF THE N-AQUIFER AT THE BLACK MESA MINE SITE HAS PROFOUND RELIGIOUS, CULTURAL AND ENVIRONMENTAL IMPACTS TO SACRED SPRINGS ON AND NEAR BLACK MESA. SIMILARLY, OSM DOES NOT CONSIDER THE EFFECTS OF THE MINE'S 200 SURFACE IMPOUNDMENTS ON THE FLOW OF SURFACE WATER -- WATER FOR THE HOPI FARMERS OF MOENKOPI AT THE FOOT OF BLACK MESA. IT IS HERE THAT OUR SACRED CORN IS GROWN.

IN ADDITION TO OSM'S INSENSITIVITY TO THE CULTURAL EFFECTS OF PEABODY'S USE OF THE WATER, OSM'S ANALYSIS OF THE ENVIRONMENTAL IMPACTS OF THE BLACK MESA MINE IS SERIOUSLY FLAWED ON A TECHNICAL LEVEL AS WELL. OSM NOW CONCEDES THE INACCURACY OF THE USGS GROUNDWATER MODEL IT HAS USED FOR YEARS. THE USGS MODEL IS NOT NOW, AND HAS NEVER BEEN, A VIABLE TOOL WITH WHICH TO RATIONALLY ASSESS THE IMPACT OF PUMPING MORE THAN A BILLION GALLONS OF WATER EACH YEAR FROM THE NAVAJO AQUIFER.

ALONG WITH ITS FLAWED APPLICATION OF WESTERN SCIENCE, OSM HAS DISREGARDED HOPI SCIENCE. HOPI SCIENCE RECOGNIZES THE CONNECTION OF PEOPLE TO THE LAND AND WATER. PRACTITIONERS OF HOPI SCIENCE SEE THE SACRED SPRINGS AS PASSAGE WAYS TO THE WATER WORLD, FROM WHICH HUMAN BEINGS CAME AND EVENTUALLY RETURN. THE SPRINGS ARE BREATHING HOLES: WHEN THEY STOP BREATHING, THE WATER STOPS FLOWING.

FOR YEARS, PRACTITIONERS OF HOPI SCIENCE HAVE BEEN SAYING WHAT WESTERN DATA NOW SHOWS: LARGE SCALE WITHDRAWALS HAVE SERIOUSLY DAMAGED THE NAVAJO AQUIFER. OSM'S CRITERIA, KNOWN AS "CUMULATIVE HYDROGEOLOGIC IMPACT ASSSESSMENT" OR "CHIA" CRITERIA, REVEAL SERIOUS DAMAGE TO

THE AQUIFER. SPRINGS PRODUCE FAR LESS WATER; MONITORING WELLS SHOW SIGNIFICANTLY LOWER WATER LEVELS; AND WASHES THAT USED TO RUN FULL MUCH OF THE YEAR ARE NOW OFTEN DRY AS A BONE.

DESPITE EVIDENCE OF THIS SERIOUS DAMAGE, DEMONSTRATED BY OSM'S OWN "CHIA" CRITERIA, THE AGENCY HAS TAKEN NO ACTION TO RESTORE THE HEALTH OF THE NAVAJO AQUIFER. OSM HAS NEVER REQUIRED PEABODY TO SUBMIT A RECLAMATION PLAN FOR THE NAVAJO AQUIFER AS PART OF ITS MINE APPLICATION EVEN THOUGH IT IS REQUIRED BY OSM'S REGULATIONS. THE AGENCY HAS OFFERED NO EXPLANATION FOR ITS FAILURE TO TAKE ACTION TO PROTECT AND RESTORE THE NAVAJO AQUIFER.

JUST AS TROUBLING IS OSM'S FAILURE TO INCLUDE THE INDIAN NATIONS IN A MEANINGFUL DISCUSSION OF THOSE IMPACTS. THE PUBLIC NOTICES OF PEABODY'S MINE APPLICATION, FOR EXAMPLE, DESCRIBE THE LOCATION OF THE MINE WITH TERMS SUCH AS "TOWNSHIP, RANGE AND SECTIONS." THESE ARE MEANINGLESS TO MOST HOPI AND NAVAJO PEOPLE. THE APPLICATION ITSELF CONTAINS MORE THAN 1,000 PAGES, MUCH OF IT IN HIGHLY TECHNICAL JARGON. THE APPLICATION HAS NEVER BEEN SUMMARIZED OR TRANSLATED

INTO THE HOPI LANGUAGE DESPITE THE REQUIREMENTS OF AN EXECUTIVE ORDER (13166, 65 FED. REG. 50121 (AUGUST 16, 2000)) REQUIRING AGENCIES TO TAKE STEPS TO ENSURE THAT PERSONS WITH LIMITED ENGLISH PROFICIENCY CAN MEANINGFULLY ACCESS THE AGENCY'S PROGRAMS AND ACTIVITIES. THIS INDECIPHERABLE APPLICATION WAS DEPOSITED AT ONLY TWO LOCATIONS ON BLACK MESA. THOSE LOCATIONS WERE TWO HOURS OR MORE BY CAR FROM SOME OF THE VILLAGES, AND THAT IS ASSUMING EVERY PERSON LIVING ON BLACK MESA HAS ACCESS TO AN AUTOMOBILE, WHICH THEY DO NOT.

EVEN OSM DOES NOT DENY ITS OBLIGATION TO EFFECTIVELY COMMUNICATE WITH INDIAN COMMUNITIES. THE ONLY REASON OFFERED FOR NOT TRANSLATING PUBLIC NOTICES AND OTHER VITAL DOCUMENTS RELATING PEABODY'S APPLICATION "IS THAT HOPI IS NOT A YET A WRITTEN LANGUAGE". Letter of March 6, 2002, from OSM to Vernon Masayesva. THIS RESPONSE IS ASTONISHING, GIVEN THE FACT THAT HOPI HAS BEEN A WRITTEN LANGUAGE SINCE THE 1850S, AND A NUMBER OF BOOKS HAVE BEEN WRITTEN IN HOPI, INCLUDING A HOPI-ENGLISH DICTIONARY.

WEEKS AGO, OSM HAD AGREED TO HOLD FIVE PUBLIC HEARINGS ON THE PEABODY MINE APPLICATION DURING THE SUMMER OF THIS YEAR. ON JUNE 19, 2002, OSM WROTE TO INFORM ME THAT THE AGENCY HAD DECIDED TO CALL OFF THE HEARINGS PREVIOUSLY SET FOR MAY 14, 2002. THESE HEARINGS WERE CALLED OFF AT PEABODY'S REQUEST BECAUSE PEABODY CLAIMS TO HAVE "IDENTIFIED" AN ALTERNATIVE SOURCE OF WATER FOR THE COAL SLURRY. (A COPY OF BOTH LETTERS ARE INCLUDED IN THE MATERIALS PROVIDED TO MEMBERS OF THE COMMITTEE.)

READING THOSE LETTERS YOU WILL FIND THAT NO INFORMATION IS PROVIDED IN EITHER LETTER TO SUPPORT THE FEASIBILITY, VIABILITY OR COST EFFECTIVENESS OF SUCH AN ALTERNATIVE SOURCE. IN FACT, AN APPLICATION SUBMITTED TO THE CALIFORNIA PUBLIC UTILITY COMMISSION BY SOUTHERN CALIFORNIA EDISON, WHICH OPERATES A POWER PLANT USING COAL FROM THE BLACK MESA MINE, STATES THAT "THE FEASIBILITY AND COST OF THE ALTERNATIVE IS STILL BEING INVESTIGATED". MOREOVER, THE CULTURAL AND ENVIRONMENTAL CONCERNS OF INDIAN PEOPLE LIVING ON AND NEAR BLACK MESA EXTEND BEYOND THE N-AQUIFER. NEVERTHELESS, OSM DECIDED TO RENEGE ON ITS COMMITMENT TO HOLD PUBLIC HEARINGS WITHOUT CONSULTING THE INDIAN PEOPLE

OF BLACK MESA.

BLACK MESA TRUST RESPONDED TO OSM ON JULY 6, 2002 REQUESTING THAT THE PUBLIC HEARINGS BE HELD. OSM HAS NOT YET RESPONDED TO THAT REQUEST. NEITHER HAVE THEY RESPONDED TO A FREEDOM OF INFORMATION ACT REQUEST WE SUBMITTED TO OSM MONTHS AGO FOR ALL COMMUNICATIONS BETWEEN PEABODY AND OSM FOR THE PRECEDING YEAR. AS OF TODAY, THE PEOPLE MOST EFFECTED BY THE BLACK MESA MINE CONTINUE TO BE SHUT OUT OF THE PUBLIC PARTICIPATION PROCESS.

IN CONCLUSION, I LEAVE YOU WITH THE SAME QUESTION MY FRIEND, LEONARD SELESTEWA, LEFT YOU WITH ON JUNE 4: WHY? WHY HAS OSM BREACHED ITS TRUST RESPONSIBILITY? WHY IN MORE THAN TEN YEARS HAS THERE NOT BEEN A COMPREHENSIVE AND FAIR ASSESSMENT OF THE CULTURAL AND ENVIRONMENTAL IMPACTS OF THE BLACK MESA MINE? WHY HAS OSM BEEN MORE RESPONSIVE TO THE COMPANY IT IS SUPPOSED TO BE REGULATING THAN TO THE PEOPLE TO WHOM IT HAS PLEDGED ITS PROTECTION?

WE ASK THIS COMMITTEE FOR HELP IN FINDING THE ANSWERS TO THESE QUESTIONS, AND TO DEMAND THAT OSM FULFILL ITS TRUST RESPONSIBILITY TO THE INDIAN PEOPLE OF BLACK MESA. MORE SPECIFICALLY, WE ASK THAT THIS COMMITTEE DEMAND THAT OSM

CONDUCT A COMPREHENSIVE AND OBJECTIVE ASSESSMENT OF THE CULTURAL AND ENVIRONMENTAL IMPACTS OF THE BLACK MESA MINE, AND MOVE FORWARD WITHOUT DELAY WITH PUBLIC HEARINGS WHICH THE AGENCY PROMISED TO HOLD.

THANK YOU FOR THE PRIVILEGE OF APPEARING BEFORE YOU TODAY.

Vernon Masayesava

Vernon Masayesva is the former Chairman of the Hopi Tribe and current Executive Director of Black Mesa Trust. He served previously as Hopi Tribal Vice Chairman, Tribal Representative on the Hopi Tribal Council, Director of the Arizona Native Scholastic Enrichment and Resources Program (assisting Native students with pre-collegiate studies at premier independent day schools), and Principal of the Hotevilla-Bacavi Community School, the first school operated exclusively by Hopis. Fluent in English and Hopi. Mr. Masayesva has long championed Hopi cultural preservation and issues affecting Hopi lands, both political and environmental.

As Chairman he served as a mediator with the Navajo Tribe in successful resolution of a century-long land dispute, initiated introduction of legislation to protect Native American burial sites (the first legislation ever initiated in Arizona by Hopis), and continued his efforts to end the use of Navajo Aquifer water (the ancient, pristine, and sole source of water for Hopi and some Navajo lands) for coal slurry. He is an ardent environmentalist and brings his belief that human beings can live well and still walk in balance on the earth to bear in all his work, including that of a rancher exploring the benefits of coordinating traditional dry farming techniques with low-impact modern technology (drip irrigation) to renew agriculture to prominence in Hopi life and as a component in the sustainable economic development for the Hopi Tribe.

He is a Trustee of the Grand Canyon Trust, the former Co-Chair of Renewable Energy Development on Indian Country, and a Member of the Advisory Board for the Udall Center for Studies of Public Policy.

Mr. Masayesva, the first Hopi Chairman to have earned a university degree, is a graduate of Arizona State University and received his Master of Arts degree from Central Michigan University which he attended as a Charles Stewart Mott Fellow, the first Hopi ever selected by the Foundation.

Mr. Masayesva was born in the traditional village of Hotevilla and is a member of the Coyote Clan.

Summary of Vernon Masayesva's Testimony before the Senate Committee on Indian Affairs, July 17, 2002

Vernon Masayesva, Executive Director of Black Mesa Trust, will testify that the Office of Surface Mining, which oversees Peabody Energy's mining of coal and water on Black Mesa, has failed to fulfill its trust responsibility to the Hopi and Navajo people living on and near Black Mesa. OSM, he will testify, has allowed and continues to allow the coal company to take billions of gallons of pristine ground water from the N-aquifer and billions more gallons of surface water from Indian lands without ever having conducted a complete and objective assessment of the environmental and cultural impacts of taking that water.

Black Mesa Trust is a grassroots organization dedicated to saving the N-aquifer for future generations of Hopi and Navajo people.

July 6, 2002

Mr. Jerry D. Gavette
Office of Surface Mining
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733

Re: Peabody Energy Corporation's Investigation of Alternative Water Source for Black Mesa Slurry Line

Dear Mr. Gavette:

Thank you for your e-mail of June 19, 2002, informing us of May 14, 2002 correspondence you received from Peabody Western Coal Company.

We are encouraged by Peabody's investigation of an alternative water supply for its coal slurry line, and are very interested in reviewing all materials related to that investigation. We would appreciate your forwarding to us at your earliest convenience all materials related to Peabody's investigation, including all communications between Peabody and OSM, so that we can review them and respond in more detail. (On a related note, we remind you that several months ago we submitted a request to OSM under the Freedom of Information Act (FOIA) for all written communications between OSM and Peabody for the preceding year. With this letter we reiterate our request, and also ask that copies of all written communications between Peabody and OSM issued after our initial FOIA request.)

As much as we are interested in Peabody's investigation of an alternative water source,

we are also disappointed that it is viewed by OSM as a reason to further delay a full and fair analysis of cultural and environmental impacts of the Black Mesa Mine through a meaningful public participation process. As you know, the comments we submitted together with the Natural Resources Defense Council, the Sierra Club, the Lawyers' Committee for Civil Rights under Law, and the law firms of Hagens-Berman and Sherman & Sterling express serious concerns about cultural and environmental impacts of Peabody's Black Mesa Mine operations. These include withdrawals from the N-Aquifer, but also extend to the impacts of impoundments on surface water flows on an near Black Mesa and many other important matters, as discussed in our comments. (We point out, as we did in our comments, that what is properly before OSM is not only Peabody's J-23 Mine Plan Revision, but an application for the entire Black Mesa Mine, and accordingly, an assessment of cultural and environmental impacts must look at the impacts of the entire mine operation.)

A full and fair analysis of environmental and cultural impacts of the Black Mesa Mine operation, in our view, is long overdue. Peabody has been allowed to operate the Black Mesa Mine for more than a decade without a comprehensive and objective assessment of the impacts of the mine operation on the environmental and culture of the people living on and near Black Mesa. It is not at all clear that the alternative source that Peabody is investigating will, in fact, be used. We note in this connection that a submittal made by Southern California Edison on May 17, 2002 indicates that the alternative is far from certain. "The feasibility and cost of the alternative is still being investigated." See APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) REGARDING THE FUTURE DISPOSITION OF THE MOHAVE GENERATION STATION, at 8.

At this late date, such an uncertain possibility should not stand in the way of assessing the environmental and cultural impacts of Peabody's actual mine application currently before OSM and the company's current mine operations, which are taking place every day on Black Mesa. Instead, we believe that OSM is obligated to move forward. Peabody can -- and indeed, it should -- investigate other transportation options. But, OSM's obligations, including its duty to protect trust resources such as the N-Aquifer and surface waters from further depletion and damage, no longer can be delayed nor may they be executed only with the prior concurrence of Peabody. The community expects, and is entitled to, a meaningful public participation process regarding the mine application, including the five informal meetings which OSM promised to hold later this summer. It is time for those meetings to occur, and with sufficient advance notice to enable people to actually get the notice and make plans to attend. (The two week notice period you reference in your e-mail is inadequate, especially given the fact that many of the people affected by the Black Mesa Mine have no phone or electricity. We suggest a notice period of at least 30 days.)

We look forward to moving forward with the public participation process and the assessment of cultural and environmental impacts of Peabody's Black Mesa Mine operation as proposed in its mine application, and to receiving copies of all materials related to Peabody's investigation of an alternative water source. After we have had an opportunity to review those papers, we would be happy to meet with you and others to discuss an alternative water source.

Sincerely,

Vernon Masayesva
Executive Director, Black Mesa Trust

United States Department of the Interior

OFFICE OF SURFACE MINING
Reclamation and Enforcement
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733

IN REPLY REFER TO:

AZ0001

June 19, 2002

Vernon Masayesva
Black Mesa Trust
P. O. Box 33
Kykotsmovi, AZ 86039

RE: Informal Conferences for Peabody Western Coal Company's J-23 Mine Plan Revision

Dear Mr. Masayesva:

The Office of Surface Mining (OSM) received your comments concerning Peabody Western Coal Company's J-23 Mine Plan Revision Application. In your comments you requested that OSM hold an informal conference regarding the pending application.

Peabody notified OSM by letter dated May 14, 2002, (attached) that the Mohave generating station participants and Peabody have identified a potential alternative source of water from the lower Colorado river to slurry coal from the mine to the generating station, and that plans to commit the resources for constructing the alternative water supply delivery system are linked to a larger decision process for upgrading the generating station's emission control facilities. Peabody indicated that the plans should be finalized and decisions made in the next several months. Peabody also stated that when the plans are finalized, it intends to revise the pending revision application to use the alternative water supply instead of the Navajo Aquifer to slurry the coal.

We believe it would not be an appropriate use of public resources and time to conduct public hearings on the currently proposed revision given the likelihood that it will be substantially revised to eliminate the major concern of the public. Therefore, we have decided to postpone public hearings on the pending permit revision. We will notify you of the specific dates, times and locations of public hearings at least two weeks before the hearings are to be held.

John L. Wasik
Group Executive
Southwest Operations

02-05-20-11

May 14, 2002

Mr. Peter Rutledge, Chief
Program Support Division
Office of Surface Mining Reclamation and Enforcement
1999 Broadway, Suite 3320
Denver, CO 80202-5733

RE: **Black Mesa Mine Permanent Program Permit and J-23 Mine Plan Revision**

Dear Mr. Rutledge:

Peabody Energy submitted an updated Black Mesa Mine Permanent Program Permit and J-23 Mine Plan Revision to the Office of Surface Mining (OSM) on January 19, 2002 to initiate what the agency advised would be an extensive regulatory review process of up to two years. The filing is associated with extending the Black Mesa Mine coal supply agreement with the Mohave Generating Station. It includes increased annual coal production of up to 1.5 million tons and presents an updated hydrological assessment on maximum annual use of 5,700 acre-feet of Navajo Aquifer water for mine uses, including conveying coal to the plant beginning in 2006. The increase in coal production and water use is necessary to supply the Mohave Station with enough fuel to operate after the installation of its planned environmental control systems. This rationale was discussed with the OSM, the Hopi Tribe and the Navajo Nation prior to our submission.

Peabody has an obligation to fulfill our contractual agreement with the Mohave Station. At the same time, we recognize and respect cultural concerns associated with using the Navajo Aquifer and have been working in good faith to help identify a viable alternative water source in conjunction with the Mohave participants, the Hopi Tribe and Navajo Nation.

The Mohave participants recently identified a secure source of water from the Lower Colorado River and have initiated an extensive engineering analysis for developing a new pipeline. This solution would allow lease of approximately 6,000 acre-feet of water for use at the Black Mesa operations.

Whilst we believe that the water source is secure, the resources for constructing the water delivery system have not been committed and are linked to a larger decision process concerning whether the owners of the Mohave Station will proceed with upgrading the plant's emission control equipment and other ancillary facilities. These discussions are ongoing, and we anticipate the matter will be resolved in the next several months.

Given the potential for utilizing an alternative water supply and the likely subsequent need to amend the J-23 Mine Plan Revision prior to further public

John L. Wasik
Group Executive
Southwest Operations

comment, Peabody requests the OSM postpone the informal conference process related to our January 19, 2002 submission. The application, and particularly the Probable Hydrologic Consequences and Facilities sections, will be revised substantially once the Mohave participants formally commit to enhance the plant's emission controls and to develop the alternative water source.

We believe that mining on Black Mesa is in the public interest, providing low-cost energy for the Southwest as well as a tremendous economic foundation for the Hopi Tribe and Navajo Nation. Extending the Mohave coal supply agreement would inject an estimated $1.5 billion into tribal economies over the term. The proposed resolution is also in the best interests of all stakeholders – including the Hopi Tribe, the Navajo Nation and the Mohave participants – and we believe it successfully resolves longstanding concerns associated with using the aquifer.

In summary, we request the OSM delay informal conferences on the January 19, 2002 submittal until after all the discussions with the relevant stakeholders are complete because it is in the best interest of all parties to do so. If you have any question or wish to discuss this request further, please contact me (314) 342-7677. We will be providing this letter under separate cover to the President of the Navajo Nation and the Chairman of the Hopi Tribe for their information.

Sincerely,

John L. Wasik

Craig D. Obey
Vice President for Government Affairs
National Parks Conservation Association

Regarding
Department of Interior Oversight Hearing
on the
Protection of Native American Sacred Places

Submitted to the
Senate Committee on Indian Affairs
United States Senate

August 2, 2002
Washington, D.C.

The National Parks Conservation Association (NPCA) appreciates the opportunity to submit written testimony regarding the Department of Interior's management of portions of the Ocmulgee Old Fields Traditional Cultural Property (District) located in Macon, Georgia. The sacred area, listed on the National Register of Historic Places, encompasses both Ocmulgee National Monument managed by the National Park Service and Bond Swamp National Wildlife Refuge managed by the U.S. Fish and Wildlife Service. A Georgia Department of Transportation road project could cause irreparable harm to these precious lands, and contributed to NPCA's decision this year to place Ocmulgee National Monument on our annual list of America's Ten Most Endangered National Parks.[1]

Founded in 1919, NPCA is the only private, nonprofit national advocacy organization dedicated exclusively to protecting, restoring, and enhancing national parks. Across the nation, 350,000 members support our organization in these endeavors including more than 6,500 in Georgia. Many Native American sacred sites fall within the boundaries of public lands managed by the National Park Service, and often the preservation of these places is integral to preserving the integrity of the park units. Our decision to place Ocmulgee National Monument on our endangered list this March is both intended to focus attention on the specific risks at Ocmulgee and to highlight systemic threats throughout the national park system.

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[1] The following website contains more information on NPCA's Ten Most Endangered Parks list: http://www.npca.org/across_the_nation/ten_most_endangered/

National Significance of the Traditional Cultural Property[2]

Congress first recognized the national significance of this area in 1934 by authorizing the creation of Ocmulgee National Monument. The legislation states that "lands commonly known as the 'Old Ocmulgee Field' upon which certain Indian mounds of great historical importance are located, comprising approximately two thousand acres, in and around the city of Macon....shall be set aside as a national monument."[3]

The present monument encompasses 702 acres, less than half the size originally authorized since the remaining lands have never been acquired. The main unit adjacent to downtown Macon contains seven temple mounds, as well as the Funeral Mound with more than 100 burials some adorned with artifacts of copper and marine shell. The Earthlodge, a ceremonial building with the original floor dating back 1,000 years is also located here. A second 45-acre site, the Lamar Mounds and Village Unit, sits a mile or so to the southeast separated by privately owned lands. A spiral ramp ascending one of the Lamar Mounds is the only one known to exist in the United States.

Ocmulgee National Monument is one of the few units of the park service that documents a continuous record of human occupation dating back 10,000 to12,000 years. The fertile banks of the Ocmulgee River attracted settlers from all major cultural periods—Paleo-Indian, Archaic, Woodland, Mississippian, and Historic. Remnants of these cultures include the first "Clovis" Ice Age spear point found in situ in the Southeast, along with embellished pottery, stone effigies, a copper "sun disk," and puma jawbones covered with copper.

Centuries of disruption by European settlers destroyed the flourishing cultures of the Macon Plateau and the nearby floodplains. In 1540, Hernando De Soto's expedition became the first Europeans to encounter the native inhabitants of this area, then thriving at the Lamar site. This "first contact" introduced new diseases and brought social disorder. By 1690, the British established a trading post on the Macon Plateau, attracting many Muscogean-speaking people back to the Ocmulgee River, known then as the "Ochese-hatchee" (Ochese Creek). The British first referred to these people as the Ochese Creek Nation, and eventually simply called them the "Creeks." Almost a century later, William Bartram, the naturalist and explorer, followed the Lower Creek Trading Path to the then uninhabited area, and wrote of "the wonderful remains of the power and grandeur of the ancients in this part of America." He also noted that in an "account the Creeks give of themselves, this place is remarkable for being the first town or settlement, when they sat down (as they term it) or established themselves, after their emigration from the west..."

Despite encroaching settlers, the Ocmulgee Old Fields remained revered by the Muscogee (Creek) people. In 1805, when they were forced to cede all their land holdings between the Ocmulgee and Oconee Rivers, they refused to give up the 3 by 5

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[2] The Ocmulgee National Monument website gives additional information on the historical and cultural significance of the Old Fields including a timeline of events. http://www.nps.gov/ocmu
[3] 48 Stat. 958-959

mile "Old Ocmulgee Fields Reserve." Twenty years later, Chief William McIntosh signed a treaty relinquishing ownership of the last Creek lands, including the "Reserve" tract, and tribal members subsequently executed him. Within a matter of years, the remaining Muscogee people were forcibly removed to Oklahoma. The sacred Ocmulgee Old Fields became an oddity steeped in legend as they were incorporated into the town of Macon in 1828. A local newspaper reported, "The site is romantic in the extreme; that, with the burial mounds adjacent, have long been favorite haunts of our village beaux and belles, and objects of curiosity to strangers. We should regret to see these monuments of antiquity and of our history levelled by the sordid plow - - we could wish that they might always remain as present, sacred to solitude, to reflection and inspiration."

The federal government realized that this area represented more than an "object of curiosity" when it established the National Monument. In 1997, the national significance of the area was again confirmed when the Old Fields became the first Traditional Cultural Property (TCP) east of the Mississippi River. The National Register of Historic Places includes the traditional cultural property listing "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."[4] The area is regarded as the "Cradle of the Muscogee Confederacy" for the federally recognized Muscogee (Creek) Nation, the Creek Independent Tribal Towns, and their kinsmen the Seminoles. It is considered the place where their ancestors first settled into an agrarian lifestyle, eventually creating a society encompassing a large geographic area.

The Traditional Cultural Property includes Ocmulgee National Monument along with privately held, fairly undeveloped forests and floodplains stretching down the Ocmulgee River to include most of Bond Swamp National Wildlife Refuge. The National Register of Historic Places Determination of Eligibility states that these lands contain 20 known archaeological sites, but no extensive survey has been done and eight additional sites were recorded in the last two years. The privately owned lands are also the location of the deepest peat deposits in Georgia outside of the Okefenokee Swamp. These deposits remain unexplored despite the likelihood of them containing well-preserved organic artifacts and a record of environmental changes over a vast span of time. In addition to these resources, the area's wetlands support diverse native wildlife, including woodstorks, black bear, bald eagles, and alligators.

Historic Threats and Adverse Impacts

In his opening remarks, Chairman Inouye stated that many sacred sites were left "vulnerable to desecration and destruction" after the onslaught of European settlement. This was certainly the case at the Ocmulgee Old Fields and, sadly, it has continued even in recent history.

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[4] "Guidelines for Evaluating and Documenting Traditional Cultural Properties," Parker, Patricia L. and King, Thomas E.; http://www2.cr.nps.gov/tribal/bull3803.html

Ill-conceived transportation projects from the past have left their mark on both the Monument and neighboring private lands. In 1843, a railroad line passed through the Lesser Temple Mound. After the Civil War, a second line devastated a portion of the Funeral Mound unearthing burials and sacred relics preserved only in newspaper accounts. During the late 1800's, the town of Macon used earth from the McDougal Mound as fill dirt for a local street project. In 1933, concerned citizens approached the Smithsonian Institute to examine the significance of the area, and within a year, Congress addressed creating a national monument. In the 1960's, the federal government constructed Interstate 16 straight through the monument's mile-long river boundary, severing the Macon Plateau Unit from the Lamar Unit and from the Monument's most important resource, the Ocmulgee River. This roadwork led to the discovery of three burials and numerous artifacts, including another "Clovis" point. A number of archaeological sites situated within and just outside the monument were destroyed, including Adkins Mound.

Current Threats

Once again, a road project threatens the Ocmulgee Old Fields and the National Monument. In 1985, the Georgia Department of Transportation (GDOT) first started planning the Fall Line Freeway, a four-lane, divided highway to connect Augusta, Macon, and Columbia. The highway was seen as an economic catalyst for communities without access to a four-lane road. It follows the path of the fall line, a natural delineation where the piedmont meets the coastal plain. An extension of the Eisenhower Parkway became its preferred route through Macon, a proposal that would bisect the Ocmulgee Old Fields Traditional Cultural Property and further degrade the National Monument.

In 1996, the Georgia Department of Transportation opened the comment period for the scoping process of the Eisenhower Parkway Extension Environmental Impact Statement (EIS). NPCA both attended the public hearing and provided written comments questioning the limited scope of the project. Until that point, the less-than four-mile long project had been packaged as part of the more encompassing Fall Line Freeway. Making it a local project limited the study area and potential number of alternatives, justifying the preferred route through the Traditional Cultural Property. Before plans for this freeway, GDOT's traffic counts failed to validate construction of the Eisenhower Parkway Extension. To further complicate the issue, even the local newspaper continues to confuse the Eisenhower Parkway Extension with the Fall Line Freeway.

More than six years later, the state agency continues to work on the EIS without any drafts distributed publicly. The first draft submitted by GDOT was rejected by the Federal Highway Administration. Later, internal drafts of the EIS were circulated to participating federal agencies for comment. A public draft is currently slated for release this winter. Throughout the process, the Muscogee Creek Nation has opposed the project by passing three National Council Resolutions and sending letters stating the reasons for their opposition. The Creek Independent Tribal Towns have also stated their opposition. The National Parks Conservation Association, along with other local and national

organizations, has joined them in opposing the routing of this project through the Traditional Cultural Property. NPCA views this as one of the most significant threats to our parks nationwide.

With the last cost estimates close to $130 million, the Eisenhower Parkway Extension requires local, state, and federal funds. Since all of the routes that have been seriously proposed will negatively impact the Traditional Cultural Property or other historic districts, in addition to Ocmulgee National Monument, wetlands, and endangered species habitat, section 4(f) of the Department of Transportation Act (49 U.S.C., Section 303) applies. This provision states:

> "It is the policy of the United States Government that special effort be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Accordingly, the Federal Highway Administration (FHWA) may only approve a federally funded transportation project affecting public lands, historic resources, or sensitive environmental resources if:

1. there is no prudent and feasible alternative to using that land; and
2. the program or project includes all possible planning to minimize harm....

Those who oppose the routes currently proposed for this project, including NPCA, feel that "prudent and feasible" alternatives exist, including "no build." Seven of the ten routes outlined by GDOT pass through the Traditional Cultural Property, and the remaining options seem highly impractical. Ultimately, the FHWA must very carefully weigh the "purpose and need" for the local project against the lasting damage that will be done to nationally significant 4(f) properties - damage that cannot be mitigated.

Encouraging Best Protection Practices

Clearly, a highway through this area is inappropriate, given the cultural, historic, and natural significance of the Ocmulgee Old Fields. Both the National Park Service and the U.S. Fish and Wildlife Service within the Department of Interior have a responsibility to protect the resources within their designated boundaries from this immediate threat and should continue to actively participate in the EIS process.

Both agencies should also become involved with proactive efforts to permanently protect the Ocmulgee Old Fields. NPCA encourages the Department of Interior to survey resources within the Traditional Cultural Property to determine if the significance merits their inclusion as public lands. Given the authorizing legislation for Ocmulgee National Monument, it appears that this park unit remains incomplete. In 1992, a local family donated 300 acres to Ocmulgee National Monument. This property, known as the Scott McCall Archaeological Preserve contains known archaeological sites. Currently, the Archaeological Conservancy is holding these lands adjoining the present monument's

southeastern boundary. Similarly, the U.S. Fish and Wildlife Service has been evaluating wetlands north of Bond Swamp for inclusion in the wildlife area.

While this hearing specifically addresses the management practices of the Department of Interior, the Federal Highway Administration has the central role to play in the future protection of the Old Fields. The FHWA must oversee the EIS process conducted by the Georgia Department of Transportation and determine if the state agency complied with applicable law. We encourage the Committee to scrutinize the adequacy of the FHWA's oversight of the Native American consultations, Section 4(F) compliance, environmental justice issues, and selection of the routes. They must determine if there is a "prudent and feasible" alternative, or if "no build" is an appropriate choice. Thank you for the opportunity to submit testimony.

August 2, 2002

The Honorable Daniel K. Inouye
Chairman
Committee on Indian Affairs
838 Hart Senate Office Building
Washington, D.C. 20510

Dear Chairman Inouye:

Enclosed please find testimony I am submitting for the record regarding the hearing you held July 17, 2002 to evaluate the Department of Interior's management and protection of Native American Sacred Places. The testimony, which I am submitting on behalf of the National Parks Conservation Association, involves Ocmulgee National Monument, which includes a portion of the traditional cultural property that was described in the testimony of Mr. Robert Trepp from the Inter-Tribal Sacred Land Trust. It is my hope that the Committee will find the additional background in our testimony useful.

This year, NPCA placed Ocmulgee National Monument on its list of America's Ten Most Endangered National Parks. The monument and its treasures are being placed at significant risk by plans to construct the Eisenhower Parkway Extension/Fall Line Freeway through the Ocmulgee Old Fields. As you know, the situation at Ocmulgee is only one example of the systemic threats faced by many sacred sites within the National Park System.

NPCA is very interested in working with you to protect this incredibly rich and important place and others like it. We would welcome the opportunity to meet with you or your staff and discuss this issue in detail. I may be reached at 202-454-3392 with any questions. Thank you for this opportunity to submit testimony.

Best regards,

Craig Obey
Vice President of Government Affairs
National Parks Conservation Association

Peabody

PEABODY ENERGY

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FREDRICK D. PALMER
Executive Vice President
Legal and External Affairs

July 30, 2002

The Honorable Daniel K. Inouye and
The Honorable Ben Nighthorse Campbell
United States Senate
Committee on Indian Affairs
838 Hart Senate Office Building
Washington, D.C. 20510

Dear Chairman Inouye and Vice Chairman Nighthorse Campbell:

Peabody Energy respectfully submits the attached testimony to the Senate Committee on Indian Affairs to be included in the record for the July 17, 2002 oversight hearing on the protection of Native American sacred places. This testimony supplements testimony Peabody submitted for the record on the June 4, 2002 oversight hearing on this subject.

Today's testimony reviews the U.S. Office of Surface Mining (OSM) conclusion that Peabody's water use is not adversely affecting the Navajo Aquifer or area springs. The remarks highlight extensive and ongoing efforts to study and monitor the aquifer to ensure the resource is protected and efforts to find an alternative water source to resolve cultural concerns. It also corrects statements made during the hearing about the vital process of protecting sacred places at Peabody's Arizona mines.

Previous testimony reviewed our Arizona mining activities, compliance record, and the economic benefits of the operations to the Hopi Tribe and the Navajo Nation. It also explained the regulatory requirements for maintaining surface impoundments at the mines, the effects of using water from the Navajo Aquifer, and protection of sacred water in Moenkopi wash.

After reviewing our testimony, we believe you will find that cooperation and effective consultation among the Hopi Tribe, the Navajo Nation, Peabody and the OSM has resulted in a unique and effective process to protect sacred and cultural places. Thank you for your consideration of our testimony.

Sincerely,

cc: The Honorable Kelsey Begaye
The Honorable J.D. Hayworth
Deputy Asst. Sec. Christopher Kearney
The Honorable Jon Kyl
The Honorable John McCain
The Honorable Wayne Taylor

The United States Senate
Committee on Indian Affairs
Washington D.C. 20510

Oversight hearing on the protection of Native American sacred places as they are affected by Department of Interior undertakings.

Testimony about Native American sacred places and the Black Mesa and Kayenta mines submitted by Peabody Energy
July 30, 2002

Peabody Energy
701 Market Street
St. Louis, Missouri 63101

PEABODY ENERGY'S BLACK MESA AND KAYENTA MINES

Archaeology Studies on Northern Black Mesa

Peabody Energy's experience protecting Native American cultural places on the Black Mesa spans more than 30 years and is marked by a good record of compliance that enables the Hopi Tribe and the Navajo Nation to balance historic preservation with development of tribal natural resources. The mining operations must comply with the conditions specified in the Hopi and Navajo lease agreements as well as the federal Surface Mining Control and Reclamation Act and various statutes, directives and policies developed to protect historic resources.

The Black Mesa Archaeology Project, which is widely viewed as one of the longest and most successful archaeological investigations in North America, exemplifies cooperation among tribal, regulatory, academic and industry stakeholders to ensure protection of archaeological resources. The 17-year investigation began in 1967 and explored all areas of the mining lease, including prehistoric and historic sites. About 2,600 sites were surveyed and analyzed, and 225 sites were fully excavated. More than 1 million artifacts were recovered, which remain the property of the Hopi Tribe and the Navajo Nation.

Protection of Native American Sacred Places

The potential impacts of mining on cultural resources, including sacred and ceremonial places, were thoroughly studied by the U.S. Office of Surface Mining (OSM) in the 1990 Environmental Impact Statement for the Black Mesa and Kayenta mines. These studies, performed by OSM in full consultation with the Hopi Tribe and the Navajo Nation, formed the foundation for a one-of-a-kind process to identify, characterize and protect sacred and ceremonial places and related resources. This process continuously improves as the knowledge and experience of the participants improve.

The sacred and ceremonial site process has resulted in numerous success stories. For example, based on discussions with both tribes, Peabody incorporated a culturally significant plant initiative in its reclamation program specifically to ensure restoration of sacred plants that are used for medicinal, ceremonial and other cultural purposes. Today, more than 234,000 cultural plant seedlings have been planted on 170 acres of specialized planting areas. The number of seedlings annually planted has steadily increased over the past decade from a few thousand to about 47,000 that are currently developing in the nursery for planting in the fall of 2002.

Peabody participates in the process to address a wide array of sacred places such as trail shrines, plant collection sites, wild game corrals, offering sites and other traditional places. These resources are evaluated on a case-by-case basis among local residents, the community, tribal historic preservation departments, the OSM and Peabody. Approved practices to preserve sites are used on an ongoing basis and include site recordation, literature searches and

reporting, site reconstruction and development of teaching tools to convey cultural heritage.

Protection of Springs Considered Sacred by the Hopi Tribe

The analysis of sacred places in the Black Mesa and Kayenta mines' EIS addressed the effects of Peabody's water use on springs sustained by the Navajo Aquifer. The study relied upon the OSM's Cumulative Hydrologic Impact Assessment for the mines. Findings in these documents projected that the indirect effects of Peabody's water use on the springs would be negligible. Regulatory measures to protect the springs would not be necessary because the springs would not be materially affected by mining and related activities.

Despite these findings, the OSM established criteria to assess material damage to the Navajo Aquifer and certain springs resulting from Peabody's water use. The OSM relies on the results of both a hydrologic model and physical monitoring data collected from selected springs by the U.S. Geological Survey to assess potential impacts caused by aquifer use, reporting its findings on an annual basis. Its most recent annual report, which was published in October 2001 and circulated to all stakeholders including both tribes, concludes that there has been no material damage to the springs sustained by the Navajo Aquifer resulting from Peabody's water use and no material damage to the hydrologic balance of the Navajo Aquifer caused by mining. It further concludes that the aquifer remains stable and water quality is excellent.

Recent Black Mesa Mine Permitting Decisions

The Black Mesa Mine has a valid federal permit issued under the OSM's initial program regulations and remains in full compliance with the laws governing its operations. Peabody filed an application for a permanent program permit for the Black Mesa Mine in 1985. The Secretary of the Interior placed the decision on the application in administrative delay in 1990, where it continues to remain. Eleven major studies performed over more than three decades continue to confirm that Peabody's water use is not adversely affecting the Navajo Aquifer. Peabody has periodically requested issuance of the permanent program permit and has continuously updated its application.

Peabody updated the application with a revised mine plan and hydrologic assessment in January 2002, once again seeking resolution of the administrative delay. The filing is associated with extending the mine's coal supply agreement with the Mohave Generating Station beyond 2005 and includes development of a new coal reserve located on the Hopi reservation within the existing lease area. The plan describes increased annual coal production to accommodate the plant's anticipated increased fuel requirements to operate emission control systems after 2005. The plan also includes an assessment of the probable hydrologic consequences of increasing the mine's water use to supply coal to the Mohave

plant beyond 2005, which continues to show no significant impacts. Continued reliance on the Navajo Aquifer is reflected in the plan because it is the only secure water source available for the coal transportation system and the scientific studies continue to indicate this water use would not harm the aquifer.

Despite the scientific study, Peabody respects cultural concerns associated with using the aquifer and continues working with the Mohave owners and both tribes to identify an alternative water supply for the coal transportation system. Peabody has asked the OSM to discontinue processing the hydrologic aspects of the permanent program revision and to postpone informal public conferences until a viable alternative water source can be secured and funded. Given the potential resolution for an alternative water supply, which would require a detailed amendment to the permit application, Peabody believes that most meaningful public discussion would occur after the document is updated and a thorough review of the new source could occur. This approach also provides the most efficient use of time for all stakeholders.

Mining on Black Mesa is in the Public Interest

The Black Mesa and Kayenta mines provide low-cost energy for more than 3.5 million Southwest families, a tremendous economic foundation for the Hopi Tribe and Navajo Nation and nearly 650 reservation jobs. The operations inject nearly $2 million weekly into tribal economies and would inject an additional $1.5 billion into the area over the term of the Mohave coal supply extension. Mining on Black Mesa has continued successfully for more than three decades because activities are conducted in a manner that benefits communities and shows respect for the people, their traditions and their resources. Efforts to identify a new water source to alleviate cultural concerns about using the aquifer exemplify these values.

COMMENTS ON PEABODY ENERGY CORPORATION'S BLACK MESA COAL MINE APPLICATION, SUBMITTED TO THE OFFICE OF SURFACE MINING, APRIL 29, 2002

BLACK MESA TRUST
P.O. BOX 33
KYKOTSMOVI, AZ 86039

April 26, 2002

Mr. Jerry D. Gavette
Office of Surface Mining
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733

Mr. Gavette,

The Black Mesa Trust ("BMT") submits the enclosed comments and objections to the January 17, 2002 Peabody Western Coal Company request to the Office of Surface Mining ("OSM") to lift the administrative delay on the Permanent Program Permit or life-of-the-mine permit for the Black Mesa Mine and for approval of Peabody's request to incorporate the mining sequence for the J-23 coal reserve area in the BM2P3 application. Our comments and objections are submitted pursuant to 30 C.F.R. § 773.6(b) and we request that OSM consider these comments and objections and the attached exhibits when determining whether to issue the permit.

The Black Mesa Trust is a non-profit, tax-exempt educational and public advocacy organization headquartered on the Hopi Reservation. Many of the members of the Board of Directors of the Black Mesa Trust live on the Hopi Reservation. The Black Mesa Trust develops traditional and non-traditional teaching and learning opportunities to help Hopi and Navajo people understand issues and findings which bear on the well-being of the N-Aquifer, as well as steps they can take to protect this critical resource and preserve those aspects of Hopi and Navajo life that depend upon it.

The enclosed comments focus on the standard of proof that OSM must use and the findings OSM must make with respect to all requirements imposed by the Surface Mine Control and Reclamation Act (SMCRA) and OSM's regulations before approving Peabody's request. Additional comments and objections that focus on the hydrological, endangered species and cultural impacts of Peabody's proposal and request, and on the public participation and bonding requirements under the National Environmental Policy Act (NEPA), SMCRA and OSM's regulations are being submitted under separate cover by the Natural Resources Defense Council (NRDC), The Lawyers' Committee for Civil Rights under Law ("Lawyers' Committee"), including comments and objections submitted by the Washington, D.C. office of the firm of Shearman & Sterling, and the Sierra Club, including comments and objections from Mr. Howard M. Shanker of the Phoenix law firm of Hagens Berman & Mitchell. We hereby incorporate by

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reference into BMT's comments and objections all of the above referenced comments and objections, including all of the exhibits attached to each of those comments and objections. In addition, we request and expect that OSM will also consider the materials referenced by our comments and by the comments of, NRDC, Lawyers' Committee and the Sierra Club which, although not attached as exhibits, are materials publicly available.

Thank you for the opportunity to provide written comments. We submit them for inclusion in the record being developed by OSM. Please do not hesitate to contact me if you have any questions or if we can provide any further assistance in this matter. I can be reached at (202) 662-8600.

Vernon Masayesva

Executive Director
Black Mesa Trust

cc:

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BEFORE APPROVING PEABODY'S APPLICATION, OSM MUST FIND THAT THE APPLICATION AFFIRMATIVELY DEMONSTRATES BY CLEAR AND CONVINCING EVIDENCE THAT IT COMPLIES WITH ALL OF OSM'S REGULATIONS.

Both the Surface Mine Control and Reclamation Act, 30 U.S.C., Sec. 1201, et. seq. (SMCRA) and the regulations promulgated by the Office of Surface Mine Reclamation Enforcement (OSMRE or OSM) clearly place the burden of proof on the permit applicant to show that its permit application complies with all of the agency's regulations, including rules governing mine operations, reclamation, bonding, and minimizing and preventing disturbance of and adverse impacts on various aspects of the environment, including, but not limited to, fish, wildlife and hydrological balance. 30 U.S.C. Sec. 1260(b) (requiring that the application "affirmatively demonstrate" compliance); 30 C.F.R. Sec. 773.7(b). SMCRA also requires that OSM, before approving an application, make written findings that the application complies with the regulatory program. 30 U.S.C. Secs. 1260(b)(1) and (2).

Neither SMCRA nor OSM regulations specify the standard of proof an applicant must meet and the corresponding finding OSM must make before an application is approved. In this proceeding, the appropriate standard of proof derives from the unusual interest of the Hopi and Navajo Indians in preserving their natural and cultural resources , and the strong interest of the federal government in fulfilling its fiduciary duty to protect those resources. In light of these unusually important interests, OSM must reject a "preponderance of the evidence" standard in favor of a "clear and convincing proof" standard in evaluating Peabody's application. Accordingly, it is BMT's position that before approving Peabody's application, OSM, as a matter of law, must find that the application affirmatively demonstrates by clear and convincing evidence that its proposed mine operations, reclamation plan and bond comply with the agency's regulations.

A. A "CLEAR AND CONVINCING" STANDARD OF PROOF MUST BE APPLIED IN ADMINISTRATIVE PROCEEDINGS WHERE UNUSUALLY IMPORTANT INTERESTS ARE AT STAKE.

The appropriate standard of proof in any particular administrative proceeding is determined by first looking to see if Congress intended to impose a particular standard in the agency's enabling legislation; if not, then the preponderance of the evidence standard is ordinarily applied, as provided by the Administrative Procedures Act (APA), 5 U.S.C. Sec. 556(d). *Steadman v. Securities and Exchange Commission*, 450 U.S. 91 (1981). Where Congress has failed to establish the degree of proof required in a particular administrative proceeding, the agency must decide what standard to use, and that determination involves a question of law

that, ultimately, is appropriately decided by the courts. *Herman & MacLean v. Huddleston*, 459 U.S. 375 (1983); *Steadman, supra* at 95; *Woodby v. INS*, 385 U.S. 276, 284 (1966).

In most civil and administrative cases courts apply a preponderance of the evidence standard. By this standard proof is often said to be "more probably true than not true." Graham, *Handbook of Federal Evidence*, Sec. 301.5 (4th ed. 1996). Some judges have offered the view that a preponderance standard translates into a 50+% probability. *United States v. Shonubi*, 895 F. Supp. 460, 471 (E.D. N.Y. 1995). However articulated, the preponderance standard allows for considerable inexactitude. Therefore, where particularly important interests are at stake, courts apply a "clear and convincing evidence" standard of proof. *Addington v. Texas*, 441 U.S. 418, 423-24 (1979); Davis, *Administrative Law*, Sec. 10.7 at 172, citing *Bender v. Clark*, 744 F.2d 1424, 1429 (10th Cir. 1984). "Clear and convincing" has been defined as a "firm conviction of the truth on the evidence about which he or she is certain." *United States v. Montague*, 40 F.3d 1251, 1255 (D.C. Cir. 1994). Others have expressed the standard as producing in the mind of the fact finder a "firm belief or conviction". Fishman, *Jones on Evidence*, Sec. 3:10 (7th ed. 1992). Black's Law Dictionary defines the standard simply as "proof that results in reasonable certainty of truth".

A "clear and convincing evidence" standard or some variant thereof is applied in cases involving a deprivation of liberty by civil commitment, *Addington v. Texas, supra.*, and in libel cases, where a person's right to speak freely is at risk. *Rosenbloom v. Metromedia*, 403 U.S. 29, 52 (1971). Where a person's citizenship is at stake, or where he faces deportation, the clear and convincing standard is appropriate. *Nowak v. United States*, 356 U.S. 660 (1958); *Woodby v. INS*, 385 U.S. 276 (1966). A potential loss of livelihood has also been recognized as an interest justifying the application of a clear and convincing standard. So, for example, where the Federal Communications Commission seeks to revoke an operator's license the interest implicated was viewed as tantamount to a loss of livelihood, thus justifying application of a clear and convincing standard of proof. *Sea Island Broadcasting Corp. v. FCC*, 627 F.2d 240, 244 (D.C. Cir. 1980).

Neither the SMCRA nor the APA imposes a standard of proof in OSM permit review determinations. The SMCRA merely states that the burden of proof is on the permit applicant to show that the application complies with OSM's regulations. 30 U.S.C. Sec. 1260. Nor does the legislative history of the SMCRA burden of proof provision reflect Congressional intent to impose any particular standard of proof. The APA's standard of proof provision is simply inapplicable to any informal proceeding associated with Peabody's mine permit application. *See Bender v. Clark,*

supra at 1429 (APA standard of proof provision, 5 U.S.C. Sec. 556, does not apply to DOI informal hearing to consider mineral lease); 4 Admin. Law, Sec. 24.03 (Matthew Bender & Co., Inc. 2001).

In deciding whether to approve Peabody's mine application OSM, as a matter of law, must use a "clear and convincing" standard because the Hopi and Navajo people living on and around Black Mesa and the government both have an unusually important interest in protecting Indian natural and cultural resources.

B. AS A MATTER OF LAW, OSM MUST USE A "CLEAR AND CONVINCING" STANDARD TO EVALUATE PEABODY'S APPLICATION BECAUSE THE HOPI AND NAVAJO PEOPLE LIVING ON AND AROUND BLACK MESA, AND THE FEDERAL GOVERNMENT BOTH HAVE AN UNUSUALLY IMPORTANT INTEREST IN PROTECTING THE INDIANS' NATURAL AND CULTURAL RESOURCES.

Two interrelated interests, by themselves and together, demand that OSM apply a clear and convincing standard of proof to Peabody's Black Mesa mine application: the interest that the Hopi and Navajo Indians have in the preservation of their natural and cultural resources on and around Black Mesa, and the government's interest in fulfilling its fiduciary duty to protect those resources.

1. The Indian People Living On and Around Black Mesa have an Unusually Important Interest in Protecting their Natural and Cultural Resources.

It is beyond dispute that for centuries the land and water of Black Mesa have been central to the culture and religion as well as the livelihood of the Indian people living there. In the Hopi view of life, for example, the land and water, the crops they yield, in particular, corn, and indeed all the plants, animals and people of the high desert, are interdependent and exist in a delicate natural and spiritual balance. For thousands of years the Hopi people have believed that the earth itself is alive; that water is the earth's lifeblood, and that life on earth comes from and returns to the water. And, for thousands of years, they have lived life according to this belief. The pristine water of the Navajo Aquifer is not only used by Navajo and Hopi people to drink and bathe, it is used by the Hopi to water corn, which is an important source of spiritual as well as physical sustenance , and an important part of their religious ceremonies such as blessing sacred Kachinas and naming a newborn child. (See the comments submitted by the Sierra Club on Cultural Impacts for a more detailed discussion.)

As important as water is to the Hopi and Navajo people, it is scarce in the high desert of the Colorado Plateau; annual rainfall in most places is less than 12 inches; year round running water is seldom seen (although it was seen in the past more than it is now). See *Drawdown*, Endnotes 77, 144 and 145. Indeed, the pristine water of the Navajo Aquifer is the only source of drinking water in the vast expanse of Black Mesa and surrounding areas. The scarcity and unique importance of water in the desert southwest are recognized by OSM's regulations, which make special provision for the regulation of surface coal mining in the "arid and semiarid areas", including Arizona. 30 C.F.R. Sec. 701.5. Also see *Environmental Regulation of Coal Mining: SMCRA's Second Decade* (ELI 1991) at 160.

In the Hopi view of life, the land, the plants, the animals, indeed the sky and the clouds, even Black Mesa itself, are all intertwined, and all have great cultural and spiritual meaning. This truth, together with the fact that in the desert, water, the wellspring of all life, is so scarce, make the preservation of Indian natural and cultural resources on and around Black Mesa a matter of extraordinary importance. The interest that the Indians of Black Mesa have in protecting their environment is not only a matter of livelihood -- although it is surely that -- it is a matter of protecting a way of life and spiritual well being that they have held for thousands of years.

No less than the revocation of a broadcaster's license, as was at issue in *Sea Island Broadcasting Corp. v. FCC, supra*, depletion and contamination of water and other natural and cultural resources that have been central to the Hopi and Navajo way of life for centuries implicates an interest that requires use of a "clear and convincing" standard of proof. This is an interest, to use the words of some courts, that is unusually or particularly important, and as such, it requires OSM to evaluate Peabody' s application by a "clear and convincing" standard rather than a "preponderance of evidence" standard. This is especially true when the interest of the Hopi and Navajo in protecting their natural and cultural resources is considered together with the federal government's interest in fulfilling its fiduciary responsibility to protect those resources.

2. The Federal Government has an Unusually Important Interest in Protecting Indian Natural and Cultural Resources Because it has a Fiduciary Duty to Protect such Resources.

a. Where the Federal Government Exercises Control over the Regulation of Activities Affecting Indian Natural and Cultural Resources, it has a Specific Fiduciary Duty to Protect Such Resources.

For nearly two centuries the United States Supreme Court has recognized that the federal government owes a special duty to Native Americans: a trust responsibility to protect their interests and ensure their welfare. *Morton v. Ruiz*, 415 U.S. 199 (1974); *Minnesota v. United States*, 305 U.S. 382, 386 (1939); *United States v. Shoshone Tribe*, 304 U.S. 111, 117-118 (1938); *United States v. Candelaria*, 271 U.S. 432, 442 (1926); *McKay v. Kalyton*, 204 U.S. 458, 469 (1907); *Minnesota v. Hitchcock*, 185 U.S. 373, 396 (1902); *United States v. Kagama*, 118 U.S. 375, 382-384 (1886); *Cherokee Nation v. Georgia*, 5 Pet. 1, 17 (1831). The Supreme Court has applied this trust responsibility to hold that where the federal government exercises control over the use of natural resources on tribal lands, the government has a specific fiduciary duty to protect the interests of Indian people. *United States v. Mitchell*, 463 U.S. 206, 225 (1983)*(Mitchell II)*. This fiduciary responsibility exists even when the government exercises only some control over the management of Indian resources. *Shoshone v. United States*, 51 Fed. Cl. 60, 69 (2001) (citing to *United States v. Mitchell*, 445 U.S. 535, 63 L. Ed. 2d 607, 100 S. Ct. 1349 (1980)*(Mitchell I)* and 463 U.S. 206 (1983) *(Mitchell II)*; *Navajo Nation v. United States*, 263 F.3d 1325, 1329 (Fed. Cir. 2001); *White Mountain Apache Tribe v. United States*, 249 F. 3d 1364, 1377 (Fed. Cir. 2001); *Brown v. United States, 86 F.3d 1554 (Ct. Cl.1996)*.

In *Mitchell II*, the Quinault Tribe sought money damages from the United States for breach of fiduciary duty in connection with the government's management of the Tribe's forest resources. These resources were managed by the Department of Interior, which, based upon federal statutes and regulations, "exercise[d] comprehensive control over the harvesting of Indian timber." *Mitchell II, supra* at 463 U.S. 209. Because the federal government assumed elaborate control over property belonging to Indians, the Court held, it owed them a fiduciary duty to manage their resources in their best interest. *Id.* at 225. Justice Thurgood Marshall explained further:

> [Where] the Federal Government takes on or has control or supervision over tribal monies or properties, the fiduciary relationship normally exists with respect to such monies or properties (unless Congress has provided otherwise) *even though nothing is said expressly in the authorizing or underlying statute (or other fundamental document) about a trust fund, or trust or fiduciary connection*." *Id.* (emphasis added).

The *Mitchell II* Court went on to hold that for a breach of this fiduciary duty the Quinault Indians had a cause of action for damages against the government. Other courts as well have held the government liable for failing to properly manage a reservation's oil and gas or mineral resources, much as the Interior Department has done with the Black Mesa and Kayenta mines. *Pawnee v. United States*, 830 F.2d 187 (Fed. Cir. 1987); *Jicarilla Apache Tribe v. Supron Energy Corp.*, 782 F.2d 855 (10th Cir. 1986). And, the federal government's fiduciary duty has been found applicable to water rights as well. *See Pyramid Lake Paiute Tribe v. Morton*, 354 F.Supp. 252 (D.D.C. 1972).

In *Pyramid Lake*, as NRDC explains in its *Drawdown* publication, the U.S. District Court for the District of Columbia in enjoined the diversion of water from a lake which was located on the Paiute reservation in Utah, by an upstream dam. The Paiute Indians historically had used the lake for fishing. The diversions had diminished the value of the lake by raising the salinity and preventing fish from returning there to spawn; yet, rather than protect the tribe's historical interests, the Secretary of Interior tried to achieve an "accommodation" between the tribe and the federal agency that constructed and operated the dam. *Pyramid Lake Paiute Tribe v. Morton, supra* at 257. According to the court, the secretary's actions must be held to a high bar: "The United States, acting through the Secretary of the Interior, has charged itself with moral obligations of the highest responsibility and trust. Its conduct...should therefore be judged by the most exacting fiduciary standards." *Id.*

The continuing vitality of the *Pyramid Lake* and *Mitchell II* decisions is reflected in a recent case involving Peabody's coal mining operations at the Kayenta mine on the Navajo Reservation. Just last year the Federal Circuit Court of Appeals, relying on the Supreme Court's decision in *Mitchell II*, held that "[w]hen the United States controls the Indian resources, the duty is that of a fiduciary; when the Indians control their own resources, the duty of the United States is lessened appropriately." *Navajo Nation v. United States*, 263 F.3d 1325, 1329 (Fed. Cir. 2001). Because the United States exercised pervasive control and supervision of the tribe's mineral leasing activities, it was held to have had a fiduciary duty to

maximize the benefit to the tribe through those mineral leasing activities. The Court further held that the Navajos had a cause of action for damages against the federal government for violation of its fiduciary duty. Thus, where the federal government exercises control over the regulation of surface coal mining activities on Indian lands, as it does on Navajo and Hopi lands, it owes the Indian people a fiduciary duty of the highest order to protect their natural and cultural resources.

b. The Federal Government Exerts Comprehensive and Exclusive Control Over the Regulation of Surface Coal Mining Activities on Indian Lands.

The SMCRA and the regulations promulgated under it establish a comprehensive scheme for the regulation of surface coal mining on Indian lands. The broad scope of this control is reflected in Congressional findings concerning the need for surface coal mining regulation and SMCRA's statement of purpose. See 30 U.S.C. Secs. 1201 and 1202. In passing SMCRA Congress found, among other things, that surface coal mining operations adversely affect "the public welfare . . . by destroying fish and wildlife habitats, by impairing natural beauty, . . . by creating hazards dangerous to life and property, by degrading the quality of life in local communities, and by counteracting governmental programs and efforts to conserve soil, water and other natural resources." 30 U.S.C. Sec. 1201(c). Congress also found that surface coal mining should be conducted in an environmentally sound manner, and that the Act is necessary to prevent adverse environmental effects of surface coal mining operations. 30 U.S.C. Sec. 1201(j) and (k).

Significantly, these findings are not limited to the effects of coal mining on discrete resources, but extend to the adverse effects surface coal mining operations have on the overall "**public welfare**" and "**quality of life**" of communities. See 30 U.S.C. Sec. 1201(c). Accordingly, one of the fundamental purposes of SMCRA's regulatory scheme is to protect "**society**" as well as the environment from the adverse effects of surface coal mining operations. 30 U.S.C. Sec. 1202. [Emphasis added.]. Clearly, the idea of "society" embraces more than physical resources; it involves an organized group of people associated together for reasons that are cultural and religious as well as political, scientific, economic and patriotic. See *Random House Dictionary* (Rev. ed. 1980). Webster's Dictionary defines "society" as "[t]he totality of social relationships among human beings", and as "[a] group of human beings broadly distinguished from other groups by mutual interests, participation in characteristic relationships, shared institutions and a common culture." *Webster's II New Riverside University Dictionary* (1988)

By enumerating a wide array of potential environmental impacts, and by speaking broadly in terms of "society", "public welfare" and "quality of life",

Congress clearly implies its intent that the protection afforded by SMCRA not be limited to discrete natural resources, but should extend to the environment as a whole and to the cultural and religious life of a community as it is affected by adverse impacts on the environment.

To fulfill SMCRA's objectives OSM has adopted detailed regulations requiring surface coal mine permit applicants to show that the operator will minimize adverse impacts on the environment at the mine-site and in associated offsite areas, and prevent material damage altogether to the hydrologic balance outside the permit area. 30 U.S.C. Sec. 1265(b)(10); 30 C.F.R. Secs. 780.21(h); 816.41(a). OSM's regulations also recognize a heightened interest in the water resources in the desert southwest because water is relatively scarce in that region. See 30 C.F.R. Sec. 701.5 (providing special definition for "arid and semiarid areas"); Also see *Environmental Regulation of Coal Mining: SMCRA's Second Decade* (ELI 1991) at 160.

Reflecting Congressional concern with protecting the "society" of affected communities, OSM has affirmed its commitment to protecting not only Indian natural resources, but cultural resources and religious freedom as well. On May 22, 1989, OSM adopted a final rule at 30 C.F.R. Sec. 750.12(d)(2)(v) which deleted the reference to the American Indian Religious Freedom Act, 42 U.S.C. Sec. 1996 (AIRFA) as a specific permit application information requirement, but assured tribes that "[t]he rule change does not eliminate the need for AIRFA compliance for surface coal mining operations on Indian lands." 54 Fed. Reg. 22182. OSM explained that "[t]he rule change merely reflects the fact that OSMRE, rather than the applicant, is ultimately responsible for ensuring AIRFA compliance on Indian lands." OSM made clear that the rule through which the agency ensures compliance with the AIRFA, 30 C.F.R. Sec. 750.6(a)(4), "is *broad in scope , providing for protection of all non-coal resources on Indian lands without exception, including Native American religious sites and resources*." Id. [Emphasis added.] Thus, OSM affirmed its intent and obligation to protect all Native American cultural and religious sites and resources without exception, as has Congress by its enactment of AIRFA. in 1978, and as has the President by promulgation of Executive Order 13007 in 1996. See "*Drawdown*", Note 141, citing 61 Fed. Reg. 26771.

For years the federal government, through OSM and other agencies, has asserted exclusive regulatory authority over surface coal mining on Indian lands. 53 Fed. Reg. 22182 (1989). In asserting such exclusive authority, OSM rejected the comment that such authority violates tribal sovereignty. *Id*. In its response to tribal

comments, OSM claimed that it "is, and will remain, the sole regulatory authority of surface coal mining operations on Indian lands in Arizona and New Mexico." Current regulations reflect no change in OSM's exclusive jurisdiction over the regulation of surface coal mining on Indian lands. See 30 C.F.R. Sec. 750.6(a)(1).

The control that OSM exercises over Indian resources under SMCRA is as great if not greater than the control exercised by the Secretary of the Interior over Indian timber resources in the *Mitchell II* case. It extends well beyond that exercised by the Bureau of Indian Affairs as lease administrator in *Brown, supra*. Under the authority of those decisions as well as the *Navajo Nation* case, therefore, OSM must exercise the high degree of care that a trustee must use when managing trust assets for a beneficiary. *See Mitchell II, supra*.

OSM has expressly acknowledged its fiduciary responsibility to protect Indian resources. In a Directive issued on March 28, 1996, OSM describes in great detail its trust responsibility. *See Dept. of Interior, Office of Surface Mining Reclamation and Enforcement Directive System*, 18 Reg. 1 (March 28, 1996), attached as Exhibit A. The document recognizes "the Federal trust responsibility [a]s a legal obligation under which the United States 'has charged itself with moral obligations of the highest responsibility and trust'". *Id.* at 2, quoting the United States Supreme Court decision in *Seminole Nation v. United States, supra*. "At a minimum," the document goes on to say, "it is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, as well as a duty to carry out the mandates of Federal law with respect to American Indians and Alaska Native tribes." *Id.* at 2. "As the regulatory authority for surface coal mining and reclamation operations located on Indian lands and as a Federal agency of the Department of the Interior," OSM acknowledges its responsibility to "ensure that the lands and trust resources of federally recognized Indian tribes and their members that may be affected by agency administrative and regulatory actions are identified, conserved and protected." *Id.* at 3.

The federal government's acknowledgment of its fiduciary duty to protect Indian resources within the context of surface coal mining on Indian lands is also reflected specifically in the original coal mining lease with Peabody. There, former Interior Secretary, Stewart Udall, inserted a provision in the lease that authorized future Secretaries to end groundwater mining should it be determined "at any time" that Peabody's pumping "is endangering the supply of underground water". See "*Drawdown*", p. 21.

With exclusive authority to regulate surface coal mining activities on Indian lands, OSM can not deny or neglect its fiduciary duty to protect the natural and cultural resources of the Hopi and Navajo people living on and near Black Mesa. Fulfillment of this special fiduciary duty to the Hopi and Navajo people is itself an interest that is particularly or unusually important and thus compels the use of a "clear and convincing evidence" standard.

c. To Fulfill its Fiduciary Duty OSM Must Apply a "Clear and Convincing Standard of Proof.

The United States Supreme Court, in the case of *In re Winship,* 397 U.S. 358, 370 (1970), observed that "[t]he purpose of a standard of proof is to instruct the fact finder concerning the degree of confidence our society thinks he should have in the correctness of factual conclusions for a particular type of adjudication." Although this administrative proceeding, strictly speaking, is not an adjudication, but more in the nature of a licensing proceeding, the fundamental principle articulated by the Supreme Court should inform OSM's decision about the standard of proof it should apply. If a standard of proof reflects the level of confidence our society places in the correctness of a governmental decision, as the Supreme Court observed in *In re Winship*, then the standard of proof OSM must adopt in deciding whether to approve a mine operation that will affect the natural and cultural resources of Indian people should be an exacting one.

A "clear and convincing" standard, although imperfect, is more commensurate with the federal government's highest fiduciary duty to protect Indian natural and cultural resources than is the preponderance standard. Such a standard is consistent with what some scholars refer to as the "precautionary principle": a fundamental rule to ensure "that a substance or activity posing a threat to the environment is prevented from adversely affecting the environment, even if there is no conclusive scientific proof linking that particular substance or activity to environmental damage". See *Drawdown*, at 17, quoting James Cameron and Julie Abouchar, "*The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment*, "Boston College International and Comparative Law Review 14 (1995): p. 2. A preponderance of the evidence standard leaves open too great a risk that trust resources will be irreparably harmed or squandered. A 49% chance that Peabody's mine operations will not minimize harm to the hydrologic balance at Black Mesa, for example, is too great a risk with which to leave the Hopi and Navajo people, to whom such a high duty of care is owed.

CONCLUSION

The Hopi and Navajo people have an unusually strong interest in the protection of their natural and cultural resources because those resources have sustained not only a livelihood but a way of life , including a religion, for thousands of years. This, Peabody does not and cannot dispute. The federal government also has an extraordinary interest in the protection of Indian natural and cultural resources because it has undertaken the highest fiduciary duty to do so. Each of these interests, by themselves, but especially together, compel OSM to apply a "clear and convincing" standard of proof to a review of Peabody's application. No lesser standard would adequately protect Hopi and Navajo interests, and allow the federal government to fulfill its fiduciary duty. Indeed, use of a lesser standard would violate the federal government's fiduciary duty to protect the natural and cultural resources of the Hopi and Navajo people. Accordingly, before OSM approves Peabody's request and application, it must find that Peabody has affirmatively demonstrated by clear and convincing evidence that Peabody's application complies with all of OSM regulations.

EXHIBIT "A"

	U.S. DEPARTMENT OF THE INTERIOR **OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT** **DIRECTIVES SYSTEM**	Subject Number: REG-18 Transmittal Number: Date: MAR 28 1996

Subject: Protection of Indian Lands and Indian Trust Resources

Approval: [signature] **Title:** Director

1. PURPOSE. This directive sets forth Office of Surface Mining Reclamation and Enforcement (OSM) policies and procedures for ensuring that Indian lands and trust resources that may be directly or indirectly affected by surface coal mining and reclamation operations, or by abandoned mine land reclamation, are identified, conserved, and protected. It also provides policy and procedural guidance to ensure that OSM operates within a government-to-government relationship with federally recognized Indian tribes.

2. SUMMARY. This directive provides policy and procedural guidance to ensure that OSM identifies, conserves, and protects Indian lands and trust resources during the planning and implementation of Title IV abandoned mine lands (AML) reclamation and Title V regulatory programs, projects, and activities. It also specifies the nature and extent of consultation and coordination that should be initiated by OSM employees when dealing with federally recognized Indian tribes to ensure that OSM fulfills its obligation to operate within a government-to-government relationship with such tribes. The issuance of this directive implements the requirements contained in Chapter 2, Part 512 of the Department of the Interior Manual entitled "Departmental Responsibilities for Indian Trust Resources".

This directive is meant to serve as a reference and resource document for OSM employees to ensure that they are fully aware of the existence and scope of applicable OSM policies and procedures in the performance of their assigned administrative and regulatory duties that may affect Indian lands and trust resources. The directive accomplishes this primarily by augmenting OSM's existing regulations, policies and procedures specifically applicable to Title IV and Title V activities involving such lands and resources with supplemental guidance not currently specified elsewhere in agency guidance documents.

This directive is intended only to improve the internal management of OSM and is not intended to and does not create any right to administrative or judicial review, or any other right or benefit or trust responsibility, substantive or procedural, enforceable by a party against the United States, OSM, its officers or employees, or any other person.

3. DEFINITIONS.

a. Abandoned Mine Reclamation Fund. A special fund established for the purpose of accumulating revenues designated for reclamation of abandoned mine lands and other activities authorized by Title IV of the Surface Mining Control and Reclamation Act (SMCRA). Refer also to 30 CFR Subchapter R.

b. Allotted Lands or Individual Allotments. Former tribally reserved or publicly withdrawn lands held in trust by the United States for individual tribal members, sometimes referred to as "allottees".

c. Federal Permit. A permit issued by OSM under SMCRA in its capacity as the regulatory authority on Indian lands as defined at Section 701(9) of SMCRA.

d. Federal Permitting Entity (FPE). The OSM organizational unit with responsibility for receiving and processing permit applications and other materials related to Federal permits. For Indian lands, the FPE is OSM's Western Regional Coordinating Center in Denver.

e. Indian Lands. All lands, including mineral interests, within the exterior boundaries of any Federal Indian reservation, notwithstanding the issuance of any patent, and including rights-of-way, and all lands including mineral interests held in trust for or supervised by an Indian tribe. Section 701(9) of SMCRA. (Also see definition of "Indian lands" at 30 CFR 700.5).

f. Indian Tribe. Any Indian tribe, band, group, or community having a governing body recognized by the Secretary [of the Interior]. (Section 701(10) of SMCRA)

g. Permit Application. The documents and other information filed with the regulatory authority under 30 CFR Chapter VII for the issuance of a permit to conduct surface coal mining and reclamation operations.

i. Tribal Fee Lands. All lands where the surface and/or mineral interests are owned in fee simple by an Indian tribe but not held in trust for the tribe by the United States Government.

j. Tribal Trust Lands. All lands where the surface and/or mineral interests are held in trust for an Indian tribe by the United States Government.

k. Trust Resources. Natural resources, land, water, minerals, funds or property, asset, or claim, including any intangible right or interest in any of the foregoing, which is held by the United States in trust for any Indian tribe or Indian individual subject to a restriction on alienation imposed by the United States (25 CFR 272.2(r)).

4. POLICY/PROCEDURES.

a. Policy. The Federal trust responsibility is a legal obligation under which the United States "has charged itself with moral obligations of the highest responsibility and trust" toward Indian tribes (*Seminole Nation v. United States*, 1942). At a minimum, it is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, as well as a duty to carry out the mandates of Federal law with respect to American Indian and Alaska Native tribes (Handbook on American Indians and Alaska Natives, Department of the Interior, 1995). OSM, as the regulatory authority for surface coal mining and reclamation operations located on Indian lands and as a Federal agency of the Department of the Interior, must ensure that the lands and trust resources of federally recognized Indian tribes and their members that may be affected by agency administrative and regulatory actions are identified, conserved and protected. In fulfilling these responsibilities, OSM must operate within a government-to-government relationship with Indian tribes.

(1) Protection of Indian Lands and Trust Resources.
OSM's Director is ultimately responsible for being aware of the impact of agency programs, projects, or actions on Indian lands and trust resources, and for issuing procedures and directives to ensure that all OSM personnel are fully aware of their responsibilities as Federal agency employees to identify, protect and conserve such lands and resources. OSM must ensure that any direct or indirect anticipated effects on Indian lands and trust resources of proposed reclamation projects or coal mining operations are explicitly addressed in the associated planning, decision and operational documents for such proposals including, but not limited to: decision documents, environmental assessments, and environmental impact statements. These documents should clearly state the rationale for the agency's recommended decision on the proposal and explain how the decision will be consistent with the Department's and OSM's responsibilities to identify, protect, and conserve trust resources and Indian lands.

OSM's Indian lands responsibilities extend to all lands within the exterior boundaries of Federal Indian reservations and to off-reservation lands including mineral interests held in trust for or supervised by a tribe, including the Crow Ceded Area in Montana. The Ceded Area is adjacent to the Crow Indian Reservation and consists primarily of tribal trust mineral overlain by non-Indian surface, except for two sections of State land per township, including one section of State land in the Absaloka Mine. Although there is no Federal trust responsibility on tribal fee lands, for purposes of SMCRA, such lands are also considered Indian lands. Other lands, such as individual allotments outside the exterior boundaries of a Federal Indian reservation, may be considered Indian lands for purposes of SMCRA regulation if there is sufficient evidence that such lands are supervised by a tribe. If such other lands are not supervised by a tribe, they are subject to State regulation in primacy States. (Also see definition of "Indian lands" at 30 CFR 700.5).

(2) Government-to-Government Relations. As required by the Presidential Memorandum of April 29, 1994 entitled "Government-to-Government Relations With Native American Tribal Governments", Federal agencies must, to the greatest extent practicable and to the extent permitted by law, consult with tribal government(s) prior to taking actions that affect federally recognized Indian tribes. Activities which affect Native American tribal rights or trust resources should be implemented in a knowledgeable, sensitive manner respectful of tribal sovereignty. Agencies are required to assess the impact of Federal government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during the development of such plans, projects, programs, and activities. The Presidential memorandum directs agencies to apply the requirements of Executive Order Nos. 12875 ("Enhancing the Intergovernmental Partnership") and 12866 ("Regulatory Planning and Review"), where appropriate, to address specific or unique needs of tribal communities. An advisory memorandum issued on February 24, 1995 by the Assistant Secretary for Indian Affairs provides supplemental guidance to assist the Department's bureaus and offices in the incorporation and implementation of the President's directive into their daily activities and decision-making processes.

OSM must assess early in the planning, development or review of proposed programs, projects, mining operations or other activities, including rulemaking actions, the potential impacts of such proposed activities on Indian lands and trust resources. OSM should avoid actions which negatively impact tribal treaty rights or trust resources. If OSM's evaluation of a proposed activity reveals any potential direct or indirect impacts on Indian lands or trust resources, OSM must consult directly with the federally recognized tribal government with jurisdiction over the Indian lands or trust resources that may be affected. If OSM's evaluation of the proposed activity reveals any potential direct or indirect impacts on tribal trust lands or trust resources, OSM must also consult with the appropriate office of the Bureau of Indian Affairs (BIA) and, if appropriate, the Office of the Solicitor. Agency consultations with tribal governments are to be open and candid so that all interested parties may evaluate for themselves the potential impact of the proposal on Indian lands and trust resources.

(3) Title IV Reclamation. OSM's Title IV responsibilities on Indian lands include administering the Federal Reclamation Program on the lands of federally recognized Indian tribes that do not have approved Indian reclamation programs (non-program Indian tribes). Under the Federal Reclamation Program, OSM performs any necessary eligible emergency and non-emergency AML reclamation on the lands of non-program Indian tribes. In addition, OSM is responsible for any emergency reclamation that might be necessary on the lands of the three program tribes (Crow, Hopi and Navajo) established under section 405(k) of SMCRA.

OSM also administers the Abandoned Mine Reclamation fund which was created pursuant to Title IV of SMCRA and is financed by a reclamation fee assessed on every ton of mined coal. The fund is divided into the Tribal/State and Federal shares with each Indian tribe or

State having a federally approved reclamation program entitled to 50 percent of the reclamation fees collected from coal operations within the Indian lands or State. Forty percent of the Federal share of the fund is also allocated to the Tribes/States. The three program tribes receive annual reclamation grants from the Abandoned Mine Reclamation Fund subject to appropriation by Congress.

The Crow, Hopi and Navajo Tribes have exclusive authority under their approved reclamation programs to abate hazards to public health and safety and the environment by reclaiming abandoned coal mines on Indian lands under their jurisdiction. The three program tribes' AML reclamation authority extends to all lands within their respective federal Indian reservation boundaries, tribal fee lands, and any other off-reservation lands where such lands including mineral rights are held in trust for or supervised by the program tribe.

The tribes can also use Tribal share monies to reclaim abandoned noncoal mine sites if the request is made by the Tribal head and the project represents an extreme danger to public health, safety, general welfare or property. Further, once a program tribe certifies that it has addressed the reclamation of all eligible abandoned coal mine projects and OSM's Director or designee concurs, the tribe can then use the full amount of its Tribal share for abandoned noncoal mine land reclamation projects.

OSM conducts oversight of the Crow, Hopi and Navajo Tribe's approved Indian reclamation programs by evaluating the implementation of such programs in the context of Title IV of SMCRA and the implementing regulations at 30 CFR Part 870 et seq., the tribes' respective federally approved reclamation plans, and the Abandoned Mine Land Final Guidelines published in the Federal Register on March 6, 1980 (45 FR 14810). OSM assists the tribes with the implementation of their approved programs as requested by the tribes.

(4) Title V Regulation. SMCRA provides a comprehensive scheme for the regulation of coal mining and the surface effects of underground mining and provides for the assumption of regulatory responsibility (primacy) by States for non-Federal and non-Indian lands within a State when regulatory programs are adopted meeting statutorily established criteria. However, SMCRA does not contain provisions allowing the tribes to assume primacy. In 1984, the Secretary of the Interior reported to Congress on the findings from a study of regulation on Indian lands. Regulations were published that same year giving the Secretary exclusive authority to regulate surface coal mining and reclamation operations on Indian lands until such time as legislation is passed by Congress enabling the tribes to assume primacy.

The Energy Policy Act of 1992 amended SMCRA to add a new section 710(i) which provides that the Secretary shall make grants to the Crow, Hopi, Navajo, and Northern Cheyenne Tribes to assist them in developing regulations and programs for regulating surface coal mining and reclamation operations on Indian lands. Consistent with the Energy Policy Act provisions, OSM plans to issue grants in FY 1996, subject to appropriations, to assist these Tribes in establishing a surface coal mining unit for each Tribe. OSM supports

development of legislation that would allow the Tribes to assume primacy and has met with Tribal representatives in a series of ongoing discussions to determine how best to develop appropriate draft legislation.

As the regulatory authority on Indian lands, OSM is responsible for ensuring that surface coal mining and reclamation operations conducted on such lands are in compliance with the applicable requirements of Title V of SMCRA and the implementing regulations at 30 CFR Chapter VII. The regulatory requirements for surface coal mining and reclamation operations on Indian lands are set forth at 30 CFR Part 750.

The Indian lands regulatory program is composed of two major program elements: permitting, and inspection and enforcement (I&E). OSM's Western Regional Coordinating Center (WRCC) is the Federal permitting entity for active surface mining operations located on Indian lands and is responsible for all permitting actions including the approval or denial of applications for new permits, the processing of permit revisions, ordered revisions, permit renewals and permit transfers, conducting midterm permit reviews, and permit issuance.

Active coal mining on Indian lands presently occurs exclusively in the western United States on Hopi and Navajo lands in the States of Arizona and New Mexico, on the Crow Ceded Area in Montana, and on Ute Mountain Ute lands in New Mexico and Colorado. In addition, a portion of a coal haul road crosses a corner of the Ute Mountain Ute Reservation in northern New Mexico. OSM regulates exclusively on Indian lands in Arizona and New Mexico.

In Montana, OSM and the Montana Department of State Lands (DSL) jointly administer the applicable regulatory requirements for surface coal mining operations located on the Crow Ceded Area pursuant to a 1985 memorandum of understanding (MOU). The MOU was entered into by the Department of the Interior, OSM and the State of Montana as part of a settlement agreement in Montana's challenge to OSM's Indian lands regulations. Specific procedures for the implementation of the permitting provisions of the MOU are set forth in a document entitled "Working Procedures for Coordination of Permitting Activities for the Absaloka Mine" that was jointly prepared and finalized by OSM and Montana DSL in August 1990.

In a letter dated June 1, 1995, the Crow Tribe requested recision of the MOU between OSM and the State of Montana. OSM responded to the Crow Tribe in its letter of July 20, 1995. That letter indicated that the concerns expressed by the Crow Tribe warranted further consideration and examination, and OSM intended to address this matter in consultation with the Crow Tribe and the State of Montana, with input from the permittee, as appropriate. Any policy or procedural change(s) that result from this OSM consultation with the Crow Tribe and the Montana DSL will be reflected in subsequent revision(s) to this directive.

OSM's field offices and field divisions are responsible for conducting I&E activities on Indian lands mines located within the boundaries of those States that fall within the field

office or division's area of jurisdiction. Inspectors from OSM's Albuquerque, New Mexico Field Office conduct I&E activities on Indian lands in Arizona, New Mexico, and Colorado. On the Crow Ceded Area, Montana DSL has the lead responsibility for conducting inspections and initiating enforcement actions. However, inspectors from OSM's Casper, Wyoming Field Office accompany State inspectors on inspections of coal mining operations on the Crow Ceded Area and retain the authority to take enforcement action should OSM determine that the State has failed to take appropriate action concerning any violations of applicable laws, regulations, orders, approved mining and reclamation plans and permits.

b. Responsibilities.

(1) The Assistant Director, Program Support, provides national policy direction and guidance in the development and implementation of agency procedures for ensuring that OSM's Indian lands and trust responsibilities are met in relation to Title IV and Title V programs, projects and activities that involve or may affect Indian lands and trust resources, and that OSM operates within a government-to-government relationship with federally recognized Indian tribes.

(2) The Regional Directors for the Appalachian, Western, and Mid-Continent Regional Coordinating Centers are responsible for ensuring that the applicable agency procedures are implemented by their respective employees in the performance of their Title IV responsibilities for non-program Indian tribes and, as applicable, their Title V permitting activities involving Indian lands and trust resources.

(3) The Field Office Directors (FOD) and Field Division staff are responsible for ensuring that the applicable agency procedures are implemented by field office personnel in the performance of their Title IV responsibilities for grant administration and oversight of approved Indian reclamation programs and their Title V inspection and enforcement activities involving Indian lands and trust resources.

c. Title IV Procedures. This section of the directive specifies the applicable regulations and other documents that provide policy and procedural guidance related to OSM's Title IV reclamation responsibilities. OSM's procedures relating to State and Indian reclamation programs are essentially identical, as are the Federal Reclamation Program procedures on non-Indian lands and non-program tribal lands. Documents specific to the Indian reclamation programs are the approved Title IV reclamation plans for the Crow, Hopi and Navajo Tribes. The following regulations and guidance documents listed below are not necessarily specific to Indian reclamation programs or Indian lands but, instead, are generally applicable to Title IV AML reclamation.

- 30 CFR Subchapter R - Abandoned Mine Land Reclamation

- Abandoned Mine Land Final Guidelines (45 FR 14810; March 6, 1980)

• Applicable directives contained in the AML, GMT, and REG sections of OSM's Directives System.

d. Title V Procedures.

(1) Title V Procedures - Permit Application Review and Approval and Inspection and Enforcement. This section of the directive specifies the applicable regulations and other documents that provide policy and procedural guidance for OSM's Title V permitting and inspection and enforcement responsibilities that may affect Indian lands and/or trust resources. Regulatory requirements specific to the Indian lands are found at 30 CFR Subchapter E - Indian Lands Program. The following regulations and guidance documents are generally applicable to OSM's Title V permitting and inspection and enforcement activities and are not necessarily specific to Indian lands.

• 30 CFR Subchapter B - Initial Program Regulations

• 30 CFR Subchapter F - Areas Unsuitable for Mining

• 30 CFR Subchapter G - Surface Coal Mining and Reclamation Operation Permits and Coal Exploration Systems Under Regulatory Programs

• 30 CFR Subchapter J - Bonding and Insurance Requirements for Surface Coal Mining and Reclamation Operations

• 30 CFR Subchapter K - Permanent Program Performance Standards

• Subchapter L - Permanent Program Inspection and Enforcement Procedures

• Subchapter M - Training, Examination, and Certification of Blasters

• Subchapter P - Protection of Employees

• Applicable directives contained in the INE and REG sections of OSM's Directives System.

(2) Consultation and Coordination Procedures for Proposed Permitting Actions. Agency responsibilities and consultation requirements for surface coal mining and reclamation operations on Indian lands are set forth generally at 30 CFR 750.6. However, consultation requirements for proposed permitting actions may vary somewhat depending upon the land ownership status of the lands involved in a particular permitting proposal. For proposed permitting actions involving lands within Federal reservation boundaries and off-reservation tribal trust lands, OSM must consult with the affected Indian tribe and the Bureau of Indian Affairs (BIA), and as applicable, the Bureau of Land Management (BLM) and other appropriate Federal agencies. For proposed permitting actions involving tribal fee lands, OSM must consult with the tribal owner of the mineral

and/or surface estate and may consult with the BIA and BLM and other Federal agencies as appropriate.

OSM must provide the appropriate tribal government offices with copies of proposed permitting actions, submitted by applicants, for their review and comment prior to OSM taking a final action on the proposal. OSM must consider the tribe's comments in reaching its decision on the proposed permitting action. If OSM disagrees with the tribe's comments on a permitting proposal, OSM must provide the tribe with a timely written response clearly explaining the rationale for OSM's position. OSM must also provide the affected tribe with copies of all relevant correspondence relating to the permitting action, as well as copies of the Federal permit, including all revisions, for approved mining operations.

Exceptions to these consultation procedures may occur with respect to certain minor revisions when expedited review of such revisions is necessary due to unforeseen circumstances and the environmental impacts of approving such revisions would be negligible. Such situations might include relocation of topsoil stockpiles, minor realignments of existing roads, or minor modifications to existing office facilities or other structures. In such circumstances, OSM may issue a permitting decision on the proposed revision without prior consultation with the affected Indian tribe or other Federal agencies or may conduct such consultation by telephone in lieu of the normal consultation process.

For allotted lands located outside the boundaries of Federal Indian reservations that are not supervised by an Indian tribe and are thus subject to State regulation in primacy States, OSM is responsible for ensuring that the State RA consults with the appropriate BIA office concerning mining and reclamation proposals involving such lands.

(3) Consultation and Coordination Procedures for I&E Activities. Agency I&E responsibilities and associated coordination and notification requirements for surface coal mining and reclamation operations on Indian lands are set forth at 30 CFR 750.6 and 750.18. For mining operations that involve Indian lands or trust resources, OSM must notify the affected tribe and, as applicable, BIA and BLM of scheduled mine site inspections and offer them the opportunity to accompany OSM on such inspections. OSM must also provide the affected tribe and, as applicable, BIA and BLM with copies of all inspection reports and enforcement actions. Appropriate tribal officials must also be notified of any hearings or conferences related to civil penalties involving tribal lands and be invited to attend.

For citizen complaints involving Indian lands or trust resources, the OSM field office in receipt of the complaint must provide a copy of the complaint document to the Federal permitting entity and the affected tribe and, as applicable, to the appropriate BIA office, and afford each such recipient an opportunity to comment on the issues raised in the complaint. The field office must ensure that all such copies of the complaint are edited as necessary prior to distribution to conceal the identity of the person submitting the complaint, if

NRDC
THE EARTH'S BEST DEFENSE

April 26, 2002 NATURAL RESOURCES DEFENSE COUNCIL

Via Federal Express

Mr. Jerry D. Gavette
Leader, Black Mesa/Kayenta Mine Team
Office of Surface Mining
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733

Re: Comments on Peabody Western Coal Company J-23 Life-of-Mine (LOM) Mine Plan/Black Mesa Permanent Program Permit (BM2P3) Application: Groundwater and Fish, Wildlife & Plants

Dear Mr. Gavette:

On behalf of the Natural Resources Defense Council ("NRDC"), Lawyer's Committee for Civil Rights Under Law ("Lawyers' Committee"), the Black Mesa Trust ("BMT"), each of BMT's directors individually, and the Sierra Club, we submit the following comments and objections on the January 17, 2002 Peabody Western Coal Company ("Peabody") request to the Office of Surface Mining ("OSM") to lift the administrative delay on the Permanent Program Permit (or life-of-the-mine permit) for the Black Mesa Mine and to approve Peabody's request to incorporate the mining sequence for the J-23 coal reserve area in the BM2P3 application (collectively, the "Mining Application").

These comments comprise one part of the comments being submitted to OSM on behalf of the organizations listed above. We incorporate by reference in this submittal those comments and objections (including exhibits and enclosures) which are also being filed under separate cover by the Black Mesa Trust, Lawyers' Committee, and the Sierra Club. Our comments and objections are submitted pursuant to 30 C.F.R. § 773.6(b), and we request that OSM consider these comments and objections when determining whether to issue the permit. In addition to the comments and the attached exhibits, we request and expect that OSM will also consider the materials referenced by our comments and by the comments of BMT, Lawyers' Committee, and the Sierra Club which, although not attached as exhibits, are publicly available.[1]

[1] In some instances, we have provided relevant source materials in the enclosed document, "Exhibits to NRDC Comments." An analysis of Peabody's 1999 groundwater model ("Technical Review of 'A Three-Dimensional Flow Model of the D and N Aquifers' prepared by HIS Geotrans and Waterstone, for the Peabody Western Coal Company, September 1999") is also enclosed as a separate document.

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NRDC is a national nonprofit environmental organization that uses law, science, and the support of its more than 500,000 members nationwide to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things. NRDC works to foster the fundamental right of all people to have a voice in decisions that affect their environment. It also seeks to break down the pattern of disproportionate environmental burdens borne by people of color and others who face social or economic inequities. NRDC has approximately 10,000 members in Arizona, including those who reside in Flagstaff, Tuba City, Kykotsmovi, Moencopi, and other towns in the Black Mesa area. These members have direct and significant interests in environmental and related issues raised by the Mining Application, including, but not limited to, the depletion of the sole source of drinking water on the Black Mesa Plateau: the N-Aquifer.

The Black Mesa Trust is a non-profit, tax-exempt educational and public advocacy organization headquartered on the Hopi Reservation. Many of the members of the Board of Directors of the Black Mesa Trust live on the Hopi Reservation. The Black Mesa Trust develops traditional and non-traditional teaching and learning opportunities to help Hopi and Navajo people understand issues and findings which bear on the well-being of the N-Aquifer, as well as steps they can take to protect this critical resource and preserve those aspects of Hopi and Navajo life that depend upon it.

The Sierra Club is a national nonprofit environmental organization founded in 1892. It now has more than 700,000 members. Those members include people who live on Black Mesa. Since 1992, the Sierra Club's Environmental Justice Campaign has worked in partnership with communities of color and low-income communities on local environmental, health, and justice issues. In addition to 25 field offices, the Sierra Club has an Environmental Justice Grassroots Organizing Program with six environmental justice organizers across the country.

The Lawyers' Committee for Civil Rights Under Law is a national civil rights organization formed in 1963 to involve the private bar in assuring the rights of all Americans. For thirty-nine years, the Lawyers' Committee has represented victims of discrimination in virtually all aspects of life. In 1991, the Lawyers' Committee formed its Environmental Justice Project to represent communities of color in environmental and civil rights matters. The Lawyers' Committee has partnered with the law firm of Shearman & Sterling to provide *pro bono* representation to the Black Mesa Trust for issues related to the Black Mesa Mine and the N-Aquifer.

The comments contained in this submittal address two areas of the Mining Application: (I) groundwater and the hydrologic balance and (II) fish, wildlife and plants.

I. Groundwater—Hydrologic Balance

A. Introduction

Peabody's request to use 1.8 billion more gallons of pristine drinking water from the N-Aquifer will only exacerbate various existing "red flags" that show that the N-Aquifer is under significant stress and is suffering material damage as a result of Peabody's disturbance of the hydrologic balance. Many of these existing problems are discussed in a report entitled "*Drawdown: Groundwater Mining on Black Mesa*" ("*Drawdown*"). Published by the Natural Resources Defense Council in 2000, this peer-reviewed report also includes a study conducted by hydrogeologists at the consulting firm, Levine Fricke Recon ("LFR"). LFR has also produced two additional reports addressing impacts associated with mine-related withdrawals from the N-Aquifer. All of these reports are hereby incorporated by reference in this comment letter as if set forth in full herein (and all are enclosed as attachments to these comments).

B. Regulatory Background and Requirements

The Surface Mining Control and Reclamation Act of 1977 (hereinafter, "SMCRA"), 30 U.S.C. Section 1231, et seq., sets forth requirements related to applications for permits, such as the one requested by Peabody. Implementing regulations set forth in Title 30 of the Code of Federal Regulations augment these statutory requirements. These requirements contain provisions that restrict and condition OSM's ability to issue a permit to a mining applicant.

First, a permit application "shall contain . . . a determination of the probable hydrological consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime, quantity and quality of water in surface and ground water systems . . . and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the regulatory authority of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability." 30 U.S.C. § 1257(b)(11); see also 30 C.F.R. § 780.21.

Second, "as a minimum," coal operations shall "minimize the disturbances to the prevailing hydrologic balance at the mine-site and in associated offsite areas and to the quality and quantity of water in surface and ground water systems both during and after surface coal mining operations and during reclamation . . . ." 30 C.F.R. § 1265(b)(10); see also 30 C.F.R. §§ 780.21(h); 816.41(a).

Third, and more generally, the use of best available technology currently available shall be implemented to "minimize disturbances and adverse impacts of the operation on fish, wildlife, and related environmental values, and achieve enhancement of such resources where practicable." 30 U.S.C. § 1265(b)(24).

Fourth, SMCRA establishes that the burden of proof with regard to whether the substantive regulatory requirements have been met rests squarely on the shoulders of the applicant—here, Peabody. 30 U.S.C. § 1260(b) (application must "affirmatively demonstrate"); 30 C.F.R. § 773.7 ("The applicant for a permit or revision of a permit shall have the burden of establishing that his application is in compliance with all the requirements of the regulatory program").

Fifth, OSM must make written findings on the basis of information in the record that, among other things, the application is "accurate and complete and that all requirements . . . have been complied with," that an assessment of the "probable cumulative hydrologic impact of all anticipated mining in the area" has been made and that the proposed operation "has been designed to prevent material damage to hydrologic balance outside the permit area." 30 U.S.C. §§ 1260(b)(1), 1260(b)(2).

C. Peabody is Ineligible for a Permit Because It is Currently in Violation of SMCRA Interim Program Requirements to "Minimize Disturbance to the Hydrological Balance"

Peabody is now operating its Black Mesa mine under so-called "interim" or "initial" performance regulations. 30 C.F.R. § 715. These regulations set forth specific requirements applicable to protection of ground and surface waters and protection of the hydrologic balance. Id. In particular, Peabody is, and has been, required to "plan and conduct coal mining and reclamation operations to minimize disturbance to the prevailing hydrologic balance in order to prevent long-term adverse change in the hydrologic balance that could result from surface coal mining and reclamation operations, both on- and off-site." 30 C.F.R. § 715.17. Furthermore, the initial regulations stipulate that "[c]hanges in water . . . quantity, in the depth to ground water . . . shall be minimized . . ." Id.

Peabody has failed to comply with these regulations. It has not planned or conducted operations so as to "minimize disturbance to the prevailing hydrologic balance" nor has the company "minimized" changes in water quantity and depth to groundwater. Data collected by Peabody and by the United States Geological Survey ("USGS") (attached hereto and discussed in the attached report, *Drawdown*) demonstrate that the hydrologic balance has clearly been "disturbed." Moreover, Peabody itself has acknowledged that drawdown associated with its operations is readily observable and is of notable spatial extent and dimension. See *Drawdown* at 9; Peabody Probable Hydrologic Consequences Asssessment (Chapter 18 of Mining Application) (sometimes referred to herein as "PHC") (2002) at 65.

Peabody's failure to abide by OSM regulations has at least two significant components. First, Peabody has continued to pump approximately 4,100-4,400 acre/feet of high quality drinking water for industrial use in a 273 mile coal slurry every year notwithstanding the fact that other options to transport coal exist and the water slurry

technology is demonstrably anachronistic and inappropriate in arid regions, such as the Black Mesa plateau. *Drawdown* at 5, 31-32. Peabody itself, in a written presentation that the Company has produced regarding water issues on Black Mesa, has acknowledged that alternatives to the use of the N-Aquifer exist. Peabody Lehman Brothers Powerpoint Presentation, "Arizona Operations" (enclosed with Exhibits to NRDC Comments). By employing a slurry technology—and in particular, one that uses the only high quality source of water on Black Mesa—in an arid region, Peabody has failed to comply with 30 C.F.R. Section 715.17. Further, this approach patently fails to comply with the SMCRA mandate to use best available technology currently available to "minimize disturbances and adverse impacts of the operation on fish, wildlife, and related environmental values, and achieve enhancement of such resources where practicable." 30 U.S.C. § 1265(b)(24); see generally Mining Application, Chapters 15-19.

Second, even if one were to assume for the sake of argument that Peabody could employ its current slurry line, using N-Aquifer water, without such operation constituting a *per se* violation of the initial performance requirements of Part 715.17, Peabody has otherwise failed to take steps that would "minimize disturbance to the prevailing hydrologic balance" and "minimize" changes in water quantity and depth to groundwater. For example, Peabody could, but has not, altered the mixture of N-Aquifer water and coal in the slurry to reduce water needs and it continues to use large amounts (approximately 500 acre/feet per year) of N-Aquifer water for other mining-related uses. *Drawdown* at 5, 32-33; Mining Application, Chapter 16 at 37 ("Peabody operates a wellfield . . . completed in the . . . N Aquifer . . .for the coal slurry pipeline serving the Mohave Generating Station *and for other operational uses*") (emphasis added).

For these reasons, Peabody is in ongoing violation of federal regulations applicable to its operations. This violation is "unabated" and "uncorrected" pursuant to 30 C.F.R. Section 773.12 ("permit eligibility determination"). OSM must review information submitted herein regarding this unabated and uncorrected violation of SMCRA pursuant to 30 C.F.R. Section 773.11 and must further find that Peabody is ineligible for permit issuance until and unless its use of the N-Aquifer ceases. 30 C.F.R. §§ 773.12 and 773.15.

D. The Review of Probable Hydrologic Consequences in the Mining Application is Inadequate and Incomplete

In addition to Peabody's ongoing violation of OSM regulations, Peabody's Mining Application must also be denied because the information presented in the Mining Application is inadequate and incomplete. OSM regulations require all applications for new or revised permits to contain a determination of the "probable hydrologic consequences (PHC) of the proposed operation upon the . . . quantity of surface and ground water under seasonal flow conditions for the proposed permit and adjacent areas." 30 C.F.R. § 780.21(f). Among other things, the PHC shall contain findings on "whether adverse impacts may occur to the hydrologic balance" and "whether the proposed

operation . . . may result in . . . dimunition . . . of a source of water "which is used for domestic . . . or other legitimate purpose." Id. at § 780.21(f)(3).

The PHC prepared by Peabody, and contained in Chapter 18 of the Mining Application, is fundamentally flawed and fails to meet these regulatory requirements. Major flaws include the following: (1) the PHC ignores or seeks to minimize empirical data demonstrating a variety of material impacts to the N-Aquifer in favor of theoretical modeling; (2) the PHC relies on a model which, on its face, is inadequate to address all relevant consequences of mining on the hydrologic balance (and associated, existing Cumulative Hydrologic Impact Assessment ("CHIA") factors established by OSM); (3) the Peabody model is otherwise flawed in important ways that destroy its utility and credibility, including its theoretic postulation of a nearly unlimited supply of water to replace water pumped by Peabody and mask the effects of Peabody pumping; (4) the PHC fails to directly address the CHIA criteria established by OSM; (5) the PHC fails, after noting that underground sources of drinking water will be diminished, to discuss alternative sources; and (6) the PHC fails to discuss in any fashion non-quantitative impacts associated with its quantitative impacts on the N-Aquifer. Each of these points is discussed in turn.

First, the PHC fails to address data that have been collected by Peabody and the USGS that demonstrate a range of material impacts and damage to the N-Aquifer and hydrologic balance on Black Mesa. The PHC completely fails to discuss most empirical data, even though this data is part of existing monitoring programs discussed by Peabody and/or is published by the USGS. See Mining Application at Chapters 15-16. Even if Peabody disagrees that it bears significant responsibility for the impacts identified by the data, there is no basis to fail to disclose them in connection with the PHC. These impacts include drawdown of water levels in the N-Aquifer by 100 feet or more; diminishment of flow by more than 30% from seven of nine monitored N-Aquifer springs; and other strong indications of substantial reductions in flow in washes. See *Drawdown* at 6-12 (citing USGS regional monitoring reports and relying on data published therein). Moreover, Peabody's PHC predicts massive additional drawdown, noting that for Scenario I, water levels will decline by more than 600 feet beneath the Mesa in 2023 and will not have fully recovered in 2054. Mining Application, Chapter 18 at 73.

While modeling techniques may be a permissible component of a Mining Application, the "PHC determination shall be based on baseline hydrologic, geologic and other information collected for the permit application . . . ." 30 C.F.R. § 780.21(f)(1). It does not appear that baseline data have played any material role in the analysis contained in the PHC. In particular, Peabody's own data, and data set forth in *Drawdown*, evidence a range of hydrologic balance disturbances, but these impacts are simply discounted by Peabody. This is improper. See 48 Fed. Reg. 43956 (September 26, 1983) (discussion of Section 780.21(d)).

Second, Peabody relies heavily on a model of the N-Aquifer in order to support its claims that impacts to the N-Aquifer are minimal. Mining Application, Chapter 18 at 39 ("model"). However, Peabody admits that the model has insufficient resolution to address a critical issue: diminishment of flow at sacred and other springs in the area. Id. ("the models are not of sufficient resolution to simulate flow at individual springs . . . ").

The impact of Peabody's activities on spring flow is, and has always been, a central hydrogeologic issue. For example, one of the four CHIA criteria established by OSM establishes a material damage threshold of 10% reduction in spring flow. Cumulative Hydrogeologic Impact Assessment of Peabody Coal Company Black Mesa Mine/Kayenta Mine (1989). Yet, Peabody's model simply does not address this issue, thereby precluding OSM from assessing impacts to individual springs, many of which are integral religiously and culturally to the Hopi in addition to serving as sources of potable water. *Drawdown* at 24.

Third, the Peabody model is otherwise fatally flawed. As documented in the attached report from expert hydrogeologists and modelers with LFR, the Peabody model has numerous inconsistencies and significant problems. Chief among them, the Peabody model artificially creates a nearly limitless supply of water residing in the D Aquifer that "replaces" water pumped from the underlying N-Aquifer by the coal company for use in its operations. This element of the model fundamentally obscures impacts and minimizes Peabody's proportional role in those that are identified. In short, as more fully discussed in the attached LFR report, the Peabody model is inadequate to support the conclusions contained in the PHC nor is it capable of supporting a finding by OSM that material damage, or other disturbances to the hydrologic balance, will not occur as a result of Peabody operations. See Kuhnel & Cross, A Technical Review of 'A Three-Dimensional Flow Model of the D and N Aquifers' prepared by HIS Geotrans and Waterstone, for the Peabody Western Coal Company, September 1999" (LFR, 2002) (submitted herewith).

It is instructive that the PHC contains significant caveats about the utility of the model. For example, Peabody acknowledges that the agreement between the model and observed water levels (alleged by Peabody) "does not necessarily mean that the predictions will be accurate." Mining Application, Chapter 18 at 46. Peabody notes that "[e]arlier models produced reasonably good agreement with water-level change information available at the time of their calibration, but the agreement of measured and simulated water-level changes degraded with increasing time." Id.

Fourth, the PHC fails to directly and meaningfully address existing standards, both administrative and regulatory. While, as discussed below, the CHIA is inadequate and in need of update, it is notable that the PHC fails to identify or relate its findings and claims to the CHIA or another objective standard or standards. For example, the PHC fails to directly address the applicable regulatory standard, which requires a finding to be made about whether "adverse impacts may occur to the hydrologic balance." 30 C.F.R. § 780.21(f)(3). Instead, the PHC analyzes "significant" impacts (see PHC at 119), a point

of reference that is not defined and that in any case fails to illuminate a range of possible adverse impacts.

Moreover, the PHC ignores the fundamental hydrology concept of "safe yield," which essentially posits that withdrawals from an aquifer should be in balance (no greater than) annual recharge. Peabody acknowledges in its PHC that "uncertainty in recharge rates remain." PHC at 45. Peabody further notes that the USGS (Lopes and Hoffman, 1997) most recently estimated a recharge rate for the N-Aquifer approximately one-half of previous assumptions. Id. (Peabody posits this reduced rate to be approximately 6500 acre feet/year.) Peabody's seeks authority to withdrawal nearly this amount of water by itself from the N-Aquifer—5700 acre-feet/year. When Peabody's withdrawals are added to domestic withdrawals of approximately 1500 acre-feet/year, safe yield is exceeded substantially. *Drawdown* at 16. Further, if one assumes that the recently announced Hopi Tribe-Reliant Energy coal-fired plant would use even 2000 acre-feet/year from the N-Aquifer, withdrawals from the N-Aquifer in the near-term would begin to approach the Safe Yield of the N-Aquifer even if it were twice the 6500 acre-feet/year figure that Peabody attributes to Lopes and Hoffman. This is especially true if additional withdrawals are made from the N-Aquifer by the tribes in the coming years.

In all of these respects, Peabody fails to relate its findings and claims to governing and objective hydrology standards and, accordingly, fails to provide a PHC that is legally adequate and useful to OSM and others.

Fifth, the PHC does not discuss the availability of alternative sources of water, even though it clearly acknowledges that drawdown will occur in the N-Aquifer, and the aquifer will be diminished, as a result of mining withdrawals. This violates OSM regulations. 30 C.F.R. § 780.21(e) ("if the PHC determination . . . indicates that the proposed mining operation may proximately result in . . . dimunition . . . of an underground . . . source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purpose, then the application shall contain information on water availability and alternative water sources").

Sixth, nowhere does the PHC discuss the fact that the use of N-Aquifer water for coal slurry operations impacts the cultural and religious beliefs of many Hopi and Navajo on the Black Mesa plateau. While the PHC is inadequate from a purely quantitative, "standard" hydrogeologic construct (as discussed herein), there can be no doubt that the industrial extraction of billion of gallons of drinking water has serious cultural and religious implications even if, for the sake of argument, it were assumed that "standard" concepts of hydrogeology, such as safe yield, for example, were not offended. Many Hopi and others have discussed these impacts in the administrative record (see *Drawdown* at 24) related to the EIS process in the late 1980s and early 1990s. Yet, these impacts, although well-known, receive precisely no attention by Peabody. This violates OSM regulations (among other laws). See Natural Resources Defense Council, et al. v. Office of Surface Mining Reclamation and Enforcement, 89 IBLA 1 (1985) (noting that

"Congress intended the assessment of impacts on hydrology to be comprehensive . . . [including] not only definite impacts or even only quantifiable ones.")

E. Peabody's Mining Application is Incomplete

Among its other flaws, as discussed herein, the Mining Application fails to include empirical monitoring data sufficient to fully assess the probable cumulative hydrologic impacts. 30 C.F.R. § 780.21(c). In particular, as noted above, Peabody's PHC fails to address flows from springs. Further, monitoring data is often incomplete or of insufficient sensitivity. For example, direct data regarding water quality is lacking (*Drawdown* at 9); and information about flows in washes is complicated by the error range of monitoring equipment (*Drawdown* at 11). These problems interfere with the application of at least two of the four criteria in the CHIA.

Moreover, as a whole, the monitoring program is flawed in scope and focus. OSM itself has noted that the program "is at best an early warning system in that it is indicative rather than deterministic and is not set up to specifically address many of the criter[ia] . . . The bottom line is that . . . we need to tailor the current monitoring program in such a way as to more specifically address the above criteria and in a deterministic fashion." *Drawdown* at 13. For these reasons, "the permit shall not be approved until the necessary hydrologic . . . information is available to the regulatory authority." 30 C.F.R. § 780.21(c)(3).

F. The Existing CHIA is Inadequate and Must be Updated

While Peabody must submit adequate hydrologic assessments and plans in the Mining Application, OSM must prepare an adequate CHIA (cumulative hydrologic impact assessment). 30 C.F.R. § 780.21(g). The CHIA, among other things, must be sufficient to determine whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area and also assess the impacts of all anticipated mining upon surface and ground water systems in the area. Id. When an application for a permit revision has been received—as here—OSM must review it and "determine whether a new or updated CHIA shall be required." Id. at § 780.21(g)(2).

In this case, the record demonstrates that the existing 1989 CHIA is inadequate to fulfill the applicable regulatory requirements. First, the existing CHIA is more than a decade old, and the administrative record does not contain any evidence supporting the sufficiency of the four adopted groundwater criteria to prevent material damage. Second, the CHIA criteria are not supported by adequate modeling or data collection. OSM has not been able to assess criteria 3 and 4 since 1994, due to modeling inadequacy. *Drawdown* at 42. Third, the existing CHIA is extremely difficult to assess, due to lack of information about baseline conditions. *Drawdown* at 50. Fourth, most of the criteria themselves are not sufficiently protective of the N-Aquifer, in part because of their reliance on modeling information. Id. The attached report from LFR, entitled

"Evaluation of Cumulative Hydrologic Impacts on the N-Aquifer" (2000), discusses in detail these and other flaws evident in the current CHIA.

Apart from these issues, the existing CHIA also fails to adequately assess probable impacts associated with Peabody's revised mining plan. As noted, the CHIA is well over a decade old. The Mining Application includes a new request to increase by more than 30% annual withdrawals from the N-Aquifer, a massive increase from approximately 4000 to 5700 acre feet. Even Peabody acknowledges this pumping scenario will drastically affect drawdown. PHC at 73 (maximum drawdown beneath leasehold 655 feet in 2023). The CHIA must, but does not, consider the mining plan now before OSM. 48 Fed. Reg. 43956 (September 26, 1998) (OSM regulations require "that the CHIA will be updated, if necessary, whenever there are changes to the approved permit").

Furthermore, a CHIA must consider the impacts of "all anticipated" mining. 30 C.F.R. § 780.21(g). Recently, the Hopi Tribe announced that it has signed a joint development agreement with a subsidiary of Reliant Resources Inc. of Houston, Texas, to explore building a 1,200-megawatt, coal-fired generating station on the reservation. Arizona Daily Sun (April 6, 2002). This plant will require water from groundwater aquifers for cooling. The impact of this new plant, in addition to those impacts related to Peabody's proposed operations, must be considered in the CHIA and the PHC—something that has not happened to date.

For these reasons, OSM must prepare and circulate for comment a new CHIA. This responsibility is enhanced by the reality that "the CHIA is particularly important in the West." *Environmental Regulation of Coal Mining: SMCRA's Second Decade* (ELI 1991) at 160. "The Office of Technology Assessment has noted that the complex geology and slow recharge rate of western aquifers make hydrologic impacts difficult to project." *Environmental Regulation of Coal Mining: SMCRA's Second Decade* (ELI 1991) at 160, citing *Office of Technology Assessment, Western Surface Mine Permitting and Reclamation* 7 (1986) ("similarly, the slow recharge rate of some Western aquifers makes it difficult to judge the effectiveness of current plans for restoration of the hydrologic balance until years after the final bond release"). For these reasons, an updated and sufficiently protective CHIA is an absolute necessity.

G. The Mining Application is Inconsistent with Requirements to Protect the Hydrological Balance

Finally, federal regulations require that "[a]ll surface mining . . . shall be conducted to minimize disturbance of the hydrologic balance within the permit and adjacent areas [and] to prevent material damage." 30 C.F.R. § 816.41(a). These are separate requirements. See 48 Fed. Reg. 43956 (September 26, 1983). A hydrologic reclamation plan shall be submitted to show how these, and related requirements, will be met. 30 C.F.R. § 780.21(h). "It shall contain the steps to be taken during mining and reclamation through bond release to minimize disturbances to the hydrologic balance

within the permit or adjacent areas; . . . and to protect the rights of present water users." Id. This plan further shall include a monitoring plan that describes how data collected can be used to determine impacts of the operation on the hydrologic balance. 30 C.F.R. § 780.21(i).

Peabody has met none of these requirements.

First, as documented herein, in no way can Peabody's plan to increase withdrawals from the sole source of drinking water on Black Mesa—to nearly two billion gallon per year—meet the requirement to "minimize disturbance" to the hydrologic balance. The PHC itself documents Peabody's admitted responsibility for massive increases in the depth to groundwater—changes in the hydrologic balance that Peabody's own figures show are pervasive throughout the Mesa. See e.g. Mining Application, Chapter 18, Figures 19b and 19d. These changes, even assuming for the sake of argument that they will not cause material damage, clearly fail these corollary OSM requirements. Peabody, far from minimizing impacts, actually proposes to exacerbate them, as documented in the company's PHC. Moreover, Peabody totally fails to propose any "steps to be taken during mining and reclamation" that would minimize impacts, such as ceasing its use of N-Aquifer water for other operational needs, changing its water-coal mixture in the slurry, using reclaimed water or other water sources as a slurry ingredient, or not using water at all to transport coal. See *Drawdown* 16, 31-32. Given the fact that analysis of the existing CHIA, as well as the draft criteria considered by OSM in the late 1980s, indicates material damage, Peabody's failure is all the more glaring—and OSM's duty to enforce this SMCRA requirement all the more evident.

Second, Peabody completely ignores the requirement that its monitoring plan "shall describe how the data may be used to determine the impacts of the operation on the hydrologic balance." 30 C.F.R. § 780.21(h)(i). When Peabody's plan is reviewed, it is patent that there is no discussion at all about this critical issue—one that completely precludes use of empirical data to assess the N-Aquifer. See Mining Application, Chapter 16.

For example, Peabody's discussion of spring monitoring is typically oblique and inconsistent with OSM regulations. Peabody's discussion generally describes situations in which Peabody may review spring data for impacts caused by mining, but it fails to define a single term; fails to describe even generally what would constitute a "detrimental" impact; and, in sum, provides none of the expressly required information. See Mining Application, Chapter 16 at 54-55. Indeed, in some cases, the lack of any express guideline is simply acknowledged by Peabody, as where it states that assessment of diffuse seepage "is a judgment call by the field technician on a case by case basis." Id. at 55. Peabody goes on to note that no flow value will be assigned if the technician does not "feel comfortable" doing so. Id.

H. OSM Cannot Lawfully Make Findings Necessary to Issue the Permit

For all of these reasons, and those discussed elsewhere in this comment letter, OSM cannot comply with regulations that require certain written findings to be made before a permit is issued. 30 C.F.R. § 773.15. In particular, OSM cannot find that "the applicant has complied with all requirements of the Act and the regulatory program." Id. at § 773.15(a). Nor can OSM presently find that the "regulatory authority has made an assessment of the probable cumulative impacts of all anticipated coal mining on the hydrologic balance in the cumulative impact area and has determined that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area." Id. at § 773.15(j).

II. Fish, Wildlife and Plants

Peabody's Application should also be rejected because of its potential impact on sensitive fish, wildlife and plants in the Black Mesa region. Extending the life of the Black Mesa mine, adding the J-23 coal reserve area to the mine, approving the construction a new haulroad, and authorizing the creation of fourteen new sediment structures are all actions that may have serious negative effects on federally protected fish, wildlife and plants. First, Peabody has failed to show that its Mining Application will not effect plants or animals protected by the federal Endangered Species Act ("ESA"), 16 U.S.C. § 1532, et seq. Second, the Mining Application raises significant questions about its compliance with the Migratory Bird Treaty Act ("MBTA"), 16 U.S.C. § 703 et. seq., and the Bald and Golden Eagles Protection Act, 6 U.S.C. § 668 et. seq. Peabody's Mining Application must therefore be rejected.

A. The Endangered Species Act

Passed nearly unanimously,[2] the federal Endangered Species Act ("ESA"), 16 U.S.C. § 1532, et seq., announced Congress's determination that saving the nation's fish and wildlife would become the federal government's "first priority." Tennessee Valley Authority v. Hill, 437 U.S. 153, 185 (1978). In order to accomplish this goal, the ESA provides a comprehensive statutory structure to safeguard the survival and recovery of species threatened with extinction. Two of the ESA's mandates have particular relevance to the Mining Application. First, the ESA requires OSM to ensure that "any action" it authorizes, funds, or carries out "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modifications of habitat or such species which is determined . . . to be critical." 16 U.S.C. § 1536(a)(2). Second, the ESA requires that before Peabody may "take" any endangered or threatened species in connection with its mining activities, the U.S. Fish

[2] The Senate enacted the ESA unanimously; in the House there were only four dissenting votes. 119 Cong. Rec. 25,694, 42,915 (1973).

and Wildlife Service must first issue Peabody a "incidental take permit" accompanied by a legally valid "biological opinion." 16 U.S.C. § 1536(a).

OSM's own regulations recognize the importance of making certain that applicants for surface mining permits (or significant permit revisions) satisfy these strict requirements. Under OSM rules, all permit applicants are required to "affirmatively demonstrate" that any proposed mining operations "would not affect the continued existence of endangered or threatened species or result in destruction or adverse modification of their critical habitats." 30 C.F.R. § 773.15. See also 30 C.F.R. § 816.97 (prohibiting the conduct of any surface mining "which is likely to jeopardize the continued existence of endangered or threatened species . . . or which is likely to result in the destruction or adverse modification of designated critical habitats of such species.")

The information provided by Peabody in its Mining Application does not even come close to satisfying this burden. Much of the biological data provided by Peabody is badly out of date or incomplete. The more recent biological surveys are too narrow, and there are indications that the methodologies used to conduct those surveys are badly flawed.

First, much of the biological data provided by Peabody in its initial permit application is now badly out of date. Initial baseline fish and wildlife studies for the Black Mesa leasehold were conducted between 1979 and 1983.[3] Mining Application, Chapter 10, at 1. In short, over twenty years have passed since Peabody's initial studies were conducted. Although the studies have been revised sporadically since over the years, neither the scope nor the depth of these revisions is explained by the Mining Application. Based upon the footers in Chapter 10, however, it appears that there has been no revision to the biological data—with the exception of a narrow study of the proposed haulroad corridor (discussed below)—since 1994.[4] A seven year gap in

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[3] As discussed below, it is important to note that these studies did not actually involve the placement of survey sights on the J-23 area itself.

[4] Specifically, Chapter 10 indicates the following updates to the biological data: (1) a Vegetation and Wildlife Resources Report was completed in 1984 (Application, Chapter 10, p. 3.); (2) Chapter 10's "Results and Discussion of the Fish and Wildlife Resource Studies," its discussion of mule deer surveys, the "Aquatic Communities" section, the "Important Habitats" section and Tables 1, 2, and 22 were revised in December of 1986 (Application, Chapter 10, pp. 16, 54, 57.); (3) Tables 16, portions of the "Impact Analysis" section, and portions of Chapter 10's bibliography were revised in December of 1988 (Application, Chapter 10, p. 47, 75); (4) The "List of Tables," "Important Wildlife Species" section, and "Wildlife Resources Protection" section was revised in September of 1993 (Application, Chapter 10, pp. ii, 64, 70); the Index, List of Tables, "Mixed Conifer Woodland" section, and Tables 28 and 30 were revised in 1994 (Application, Chapter 10, p. i, iii, 14, 66, 71); and (5) Attachment 3 was added to Chapter 10 in 1995.

biological data about the presence of protected species in the lease area is simply not sufficient to demonstrate that Peabody's proposed activities will not jeopardize federally listed species or result in their take. At a minimum, OSM must require Peabody to completely update its survey data for the Black Mesa Mine.

This is especially true with respect to the J-23 coal area, which Peabody now proposes to transfer into the Black Mesa mine complex.[5] Letter from Randy Lehn to Jerry Gavette dated 1/17/02 at 1. There has been virtually no biological data collected about J-23. Indeed, an examination of Figure 1 in Chapter 10 shows that Peabody has not surveyed the J-19, J-20, J-21, and J-23 areas since 1983. Mining Application, Chapter 10 at 2. More disturbingly, a map of the sampling sites (found at Figure 2) reveals that none of the wildlife sampling sites used to compile Chapter 10's data were located in the J-23 area. Wildlife surveys conducted last year and provided with Peabody's Application also were limited to the proposed alignments for the haulroads and deadhead connecting J-23 to the Black Mesa Mine coal preparation facilities. Mining Application, Chapter 10 at Attachment 4 at 1.[6] These surveys therefore did not include the vast majority of J-23 itself, but only narrow bands of habitat between J-23 and the rest of the Black Mesa Mine. In short, Peabody simply has not provided OSM with sufficient information about the biological communities inhabiting the J-23 area. Accordingly, before OSM can grant Peabody's application it must require Peabody to conduct a biological vegetation survey of J-23.

Second, there are serious, substantive problems with the biological studies that Peabody has conducted. For example, the 2001 Biological Report conducted by SWCA, Inc. of the haulroad transportation corridors did not properly survey for the presence of northern goshawks.

Chapter 10 notes that multiple breeding pairs of northern goshawks have been reported in the Black Mesa area between 1982 and 1985. Mining Application, Chapter

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[5] As we argue above, because Peabody proposes to extend the life of the mine until 2016, its argument that OSM should "limit its review to only the materials in the application that are changing as a result of this and the August 10, 2001, submittals" is wrong. Letter from Randy Lehn to Jerry Gavette dated 1/17/02 at 1. To the contrary, because Peabody has proposed a significant revision to the entire Black Mesa permit (by extending the life of the mine) OSM is obligated to conduct a new, and thorough, review of the entire mining application. However, even if OSM accepts Peabody's suggestion to limit the scope of its review—which it should not—OSM must at a minimum conduct a thorough review of the consequences of mining in the J-23 area (which Peabody now proposes to transfer to the Black Mesa mine in its entirety) rather than limiting its inquiry to the haulroad transportation corridors, as Peabody urges. Id.

[6] Peabody's updated vegetation surveys, conducted by ESCO Associates, are similarly limited to the "study of the J23 Conveyor Alternative Routs (Project Area)." Chapter 10, ESCO Study at 1.

10, Table 16.) Chapter 10 also states that the northern goshawk's preferred habitat is pinyon-juniper woodlands. Mining Application, Chapter 10, Table 1. Granting Peabody's Application would result in the disturbance of 2,260.3 acres of pinyon-juniper woodland in the J-23 area alone. Mining Application, Chapter 9, Table 19. Yet despite the obvious potential of Peabody's activities to disturb this species, SWCA conducted only two surveys for northern goshawk (the first on June 7-9, 2000 and the second on June 27-29, 2000). Mining Application, Chapter 10, Attachment 4 at 5. The fact that no northern goshawks were found during either of these survey periods should be given little weight given that SWCA's notes that "[o]n Black Mesa, northern goshawks are common winter visitors." Mining Application, Chapter 10, Attachment 4 at 6 (emphasis added).) Nor is this the only major oversight in SWCA's biological surveys. For example, SWCA admits that "species-specific surveys for the Navajo Mountain Mexican vole were not conducted." Mining Application, Chapter 10, Attachment 4 at 5.

Peabody's older biological surveys suffer from similar flaws. For example Peabody has never conducted a detailed bat survey of the lease area, which is why the list of bat species are considered of "probably occurrence" rather than of recorded occurrence. Mining Application, Chapter 10 at 8. Similarly, other than a very brief discussion of aquatic community surveys, Chapter 10 provides no information on the methods of surveying for reptiles and amphibians. See Mining Application, Chapter 10, p. 9. Indeed, of the 56 species analyzed as part of the Listed Species Analysis (Chapter 10, Table 28, p. 66-67), only two species, the Mexican Spotted Owl and black-footed ferret, appear to have received updated analysis as part of the current Permit Application.

Another problem with the biological analysis in Peabody's Application is its failure to take into account the effect that systematically drawing down the N-Aquifer will have on species dependent upon riparian or aquatic areas. As we have pointed out herein, there is substantial evidence that the N-Aquifer is suffering signs of material damage Indeed, the USGS's own data shows that discharges to local springs and washes fed by the N-Aquifer, including many washes that are tributaries of the Little Colorado River, have declined markedly in recent years. Peabody's withdrawal of N-Aquifer water to feed its coal operations causes these declines.

In Chapter 10, Peabody acknowledges that several endangered and threatened species are known to exist in the Black Mesa region and are dependant upon the aquatic and riparian habitats that are fed by the N-Aquifer. For example, a population of humpback chubs (Gila cypha), a federally endangered species, can be found in the confluence of the Little Colorado River. Mining Application, Chapter 10 at 68. As Peabody itself acknowledges, when it commented on the Environmental Impact Statement for the Black Mesa Mine, the United States Fish and Wildlife Service noted the potential for Peabody's use of N-Aquifer water to negatively effect streamflows to the Little Colorado River. According to Peabody:

> USFWS expressed concern that mining-related surface water depletions in the Moenkopi and Dinnebito drainages, both tributary to the Colorado River, might reduce streamflow in the Little Colorado.

Mining Application, Chapter 10, p. 68.[7] Although Peabody goes on to dismiss this concern as unfounded based on the CHIA, OSM has itself acknowledged that the CHIA is badly out of date and needs to be updated. *Drawdown* at 15. Indeed, there is considerable evidence, discussed above, that Peabody's N-Aquifer withdrawals are causing a reduction in flows to both the Moenkopi and Dinnebito drainages. USGS's data, for example, show that since the early 1980's, discharges to Moenkopi Wash have decline by approximately 25 percent. *Drawdown* at 11.

Nor is the humpback chub the only federally protected species that may be affected by a decline in discharge to springs and washes caused by Peabody's mining. The razorback sucker (Xyrauchen texanus), listed as endangered, can also be found in the Little Colorado River, (Mining Application, Chapter 10, p. 68.), and populations of southwestern willow flycatchers, also listed as endangered, depend upon the Little Colorado's riparian habitat. Mining Application, Chapter 10, p. 71j. Finally, the Navajo sedge is a federally threatened plant entirely dependent upon pinyon-juniper seep/spring habitats. Navajo sedge populations can be found within six miles of the mine's leased area and the population to the southwest (Mining Application, Chapter 9 p. 65a.) may suffer from Peabody's drawdown of the N-Aquifer. Despite this fact, however, Peabody's Application does not offer any new or updated analysis of the mine's potential to affect these species.

Given all of these deficiencies and problems, OSM simply cannot conclude that Peabody's Application will not jeopardize the existence of an endangered or threatened species or result in the adverse modification of its critical habitat. Certainly, Peabody has far from met its burden to "affirmatively demonstrate" that fact. 30 C.F.R. § 773.15. Moreover, it is plain from even the spotty and out-of-date biological data that Peabody has compiled that OSM must at a minimum prepare a Biological Assessment for the United States Fish and Wildlife Service's review, engage in "formal consultations" with the Service, and await the preparation of a "Biological Opinion" from Service personnel before it may approve Peabody's Application. Kendall's Concerned Area Residents, 129 IBLAS 130 141-42 (1994); see also Greenpeace v. National Marine Fisheries Serv., 80 F. Supp. 2d 1137 (W.D. Wa. 2000) (noting that "[d]uring consultation or re-initiation of consultation, an agency can take no action that constitutes an irreversible or irretrievable commitment of resources which has the effect of foreclosing the formulation or implementation of reasonable and prudent alternatives."). Peabody has failed to provide OSM with enough information to even begin meaningful formal consultations. Accordingly, Peabody's Mining Application must be denied.

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[7] See Memorandum from Field Supervisor to Chief, Federal Programs Division, Office of Surface Mining, Reclamation and Enforcement dated 8/30/89 at 1.

B. The Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

In addition to its potential impact on threatened and endangered species, Peabody's mining activities may also result in the take of migratory birds as well as bald and golden eagles. Both the Migratory Bird Treaty Act ("MBTA"), 16 U.S.C. § 703 et. seq., and the Bald and Golden Eagles Protection Act ("Eagles Protection Act"), 16 U.S.C. § 668 et. seq., prohibit any such take.

The Eagles Protection Act states that no one shall "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or in any manner any bald eagle commonly known as the American eagle or any golden eagle, alive or dead, or any part, nest, or egg thereof of the foregoing eagles." 16 U.S.C. § 668. Similarly, the MBTA, provides that "[i]t shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill . . . any migratory bird." 16 U.S.C. § 703. OSM's regulations also prohibit any surface mining activity that "would result in the unlawful taking of a bold or golden eagle, its nest, or any of its eggs." 30 C.F.R. § 816.97.

While the MBTA does not prohibit the indirect taking of migratory birds caused by habitat modification, Seattle Audubon Society v. United States Forest Service, 952 F.2d 297 (9th Cir. 1991), courts have long held that actions which cause the direct death of migratory birds violate the MBTA. For example, the MBTA prohibits the unintentional poisoning of migratory birds from toxic substances. United States v. FMC Corp., 572 F.2d 902 (2d Cir. 1978) (killing migratory birds by dumping waste water); United States v. Corbin Farm Serv., 444 F. Supp. 510 (E.D. Cal. 1978) (killing migratory birds from misapplication of pesticide). Similarly, operators of electric transmission lines that kill migratory birds may be held liable under the MBTA. United States of America v. Moon Lake Electric Ass'n., Inc., 45 F. Supp. 2d 1070, 1084 (D. Colo. 1999). This principle has been extended to hardrock mining, where cyanide laced settling ponds often cause the death of migratory birds. See United States v. Kennecott Communications Corp., No. N-90-16M (D. Nev. Mar. 8, 1990); United States v. Echo Bay Minerals Co., No. CR N-90-52HDM (D. Nev. 1990); United States v. Nerco-Delamar Co. (a.k.a Delamar Silver Mine), No. CR 91-032-S-HLR (D. Idaho Apr. 21, 1992). Similarly, Courts have held that habitat modification that causes the direct death of migratory birds may violate the MBTA. See, e.g., Sierra Club v. Martin, 933 F. Supp. 1559, 1565 (N.D. Ga. 1996) (enjoining Forest Service authorized timber harvest that would result in the deaths of migratory songbirds); Sierra Club v. USDA, No. 94-CV-4061-JPG (S.D. Ill. Sept. 25, 1995) (remanding Management Plan to the Forest Service where the Plan allowed logging during the nesting season). Surface mining operations, no less than logging, may result in the death or injury of migratory birds.

These cases' rationales apply with equal force to the Eagle Protection Act. Moon Lake Electric Ass'n., Inc., 45 F. Supp. 2d at 1087. Indeed, OSM's regulations explicitly recognize the danger that mining operations pose to eagles, going so far as to require

mining operators to "promptly report" any golden or bald eagle nests within a mine permit area. 30 C.F.R. § 816.97.

Nor can there be any question that both eagles and migratory birds may be found in significant numbers throughout the Black Mesa Mine. Over 200 species of birds, including 22 species of raptors (and both golden and bald eagles), have been recorded within the Black Mesa leasehold. Mining Application, Chapter 10 Table 1, 16. Over 30 percent of these bird can be found in the lease area's pinyon-juniper woodlands (that habitat that dominates the J-23 area). Id. at Table 2, p. 25. Moreover, the majority of these bird species are protected under the Migratory Bird Treaty Act. See 50 C.F.R. § 10.13 (listing birds species protected under the MBTA). Indeed, every bird found in a survey of the J-20 and J-21 areas (which are adjacent to J-23) between 1982 and 1983 are protected under the MBTA. Despite this fact, however, Peabody has not conducted any studies within the last seven years to catalogue the range and densities of MBTA protected species on the leasehold. Nor, to our knowledge, has Peabody conducted any recent surveys for golden or bald eagle nests, with the exception of the single narrow SWCA survey (discussed above).[8]

Given the obvious abundance of migratory birds or eagles in the Black Mesa region, it is possible—if not highly likely—that surface mining operations in the mine area generally, and J-23 in particular, will directly cause the death of migratory birds or the destruction of their nests and eggs. This is especially true because Peabody simply has no idea of the location or densities of migratory birds and eagles on the leasehold. Peabody has also failed to propose taking any steps (such as refraining from mining activity during nesting and fledgling seasons) to minimize the death or injury to migratory birds. OSM should therefore deny Peabody's Application.

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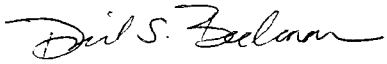
[8] Another area that Peabody has provided scant analysis of is the potential effect on migratory birds of constructing 14 new sediments structures. As discussed above, it is well established that sediment structures that contain chemicals toxic to migratory birds may effect a "taking" under the MBTA. See United States v. Kennecott Communications Corp., No. N-90-16M (D. Nev. Mar. 8, 1990). Many of these sediment structures—which are essentially designed to function as retention basins for water contaminated by Peabody's mining activities—will attract migratory birds. However, Peabody does not analyze the potential hazards that the sediment structures pose to wildlife nor has Peabody designed any netting or covers for these basins. See 30 C.F.R. § 819.97(e)(3) (requiring mining operators to "fence, cover, or use other appropriate methods to exclude wildlife from ponds which contain hazardous concentrations of toxic forming-materials.").

II. Conclusion

Thank you for the opportunity to provide these written comments. Please do not hesitate to contact us if you have any questions or if we can provide any further assistance in this matter. We can be reached at (323) 934-6900.

Sincerely,



David S. Beckman
Senior Attorney

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Enclosures

cc: Mr. Vernon Masayesva, Executive Director, Black Mesa Trust
Members of the Board of Directors, Black Mesa Trust
Honorable Wayne Taylor, Chairman, Hopi Tribe
Honorable Kelsey A. Begaye, President, Navajo Nation
The Honorable John McCain, United States Senate
The Honorable Gail Norton, Secretary of the Interior

Denise Hoffner-Brodsky, Esq., Sierra Club
Andy Bessler, Sierra Club
Mary O'Lone, Esq., Lawyers' Committee for Human Rights
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HOWARD M. SHANKER

April 26, 2002

Via Federal Express Next Day Air

Mr. Jerry D. Gavette
Office of Surface Mining
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733

Re: Comments and Objections to the January 17, 2002 Peabody Western Coal Company Request to Lift the Administrative Delay on the Permanent Program Permit or Life-of- the-Mine Permit for the Black Mesa Mine and for Approval of Peabody's Request to Incorporate the Mining Sequence for the J-23 Coal Reserve Area in the BM2P3 Application (hereinafter collectively referred to as the "Permit").

OSM Must Comply with the National Environmental Policy Act ("NEPA") Before Deciding Whether or Not to Issue the Permit

Dear Mr. Gavette:

These Comments and Objections are submitted pursuant to 30 C.F.R. § 773.6(h), on behalf of: (1) the Sierra Club; (2) the Lawyer's Committee for Civil Rights Under Law; (3) the Black Mesa Trust; (4) each of the directors of the Black Mesa Trust, as individuals; and (5) the Natural Resources Defense Council. Each of these individuals and organizations are submitting additional comments and data under separate cover, all of which are incorporated herein by this reference.

BACKGROUND

The Black Mesa Mine is currently authorized to operate by the OSMRE under Initial Program Permit AZ-0001 and the administrative delay provisions of 30 C.F.R. § 750.11(c). Permit AZ-0001 was issued on January 29, 1982. Since Permit AZ-0001 was issued before the promulgation of the permanent Indian land SMCRA regulations, Peabody filed another application for a permit on October 31, 1984, incorporating the information in the 1982 permit. On July 10, 1985, OSM authorized Peabody to operate after May 28, 1985 in the AZ-001 permit area.

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In the mid-1980s, Peabody applied for a life-of-the-mine mining plan and permit approval for the entire Black Mesa Complex. OSM's decision on issuance of a permit under the Indian lands permanent regulatory program has, however, been administratively delayed by the Secretary of the Department of Interior due to ongoing discussions over the Little Colorado River litigation. *See also* 30 C.F.R. § 750.11(c). Thus, the Kayenta Mine operates under the Permanent Program Permit AZ-0001 and the Black Mesa Mine operates under Interim program Permit AZ-0001.

In its letter requesting a revision to the Black Mesa Mine Permanent Program Permit (BM2P3) Application dated January 17, 2002, Peabody requests approval to incorporate the mining sequence for the J-23 coal reserve area in the BM2P3 application. Peabody estimates that approval of the revision will extend the life of the Black Mesa mine until 2016, with almost 61.4 million tons of coal produced between 2005 and 2016. Peabody projects that withdrawals of ground water from the N-aquifer will increase from 4,400 acre-feet to 5,700 acre-feet, annually.

PEABODY'S PERMIT APPLICATION IS A SIGNIFICANT REVISION THAT MUST BE TREATED AS A NEW PERMIT APPLICATION FOR NEPA PURPOSES

We understand that OSM may agree that the Permit application requests significant revisions that will need an Environmental Impact Statement ("EIS"). We agree with OSM's conclusion in its letter of March 6, 2002 to Vernon Masayesva that Peabody's requested Permit revision is significant under the regulations and should be treated as a new permit.

Significant revisions trigger the requirement to treat the Permit application as new, i.e., undertake the NEPA process from the beginning and issue an EIS. *See* 30 C.F.R. § 750.12(c)(3)(ii)(C) ("significant revisions shall be processed as if they are new applications . . ."). The Part 750 regulations outline requirements for Surface Coal Mining and Reclamation Operations on Indian Lands. 30 C.F.R. Part 750. According to these regulations, applications for significant revisions shall be processed as new applications in accordance with Parts 773 and 775. 30 C.F.R. § 750.12(c)(3)(C). Under the regulations, in determining what is a significant revision, OSM shall consider, among other things, the environmental effects, the public interest in the operation, or likely interest in the proposed revision, and possible adverse impacts from the proposed revision on cultural resources. 30 C.F.R. § 750.12(c)(3)(B).

The revision has generated a good deal of public interest. Indeed, we understand that as of April 25th, OSM has received more than 5,400 negative public comments on the Permit application. Cultural impacts will also be significant. *See e.g.* Comments on Cultural Resources and Environmental Justice issues submitted under separate cover by the Sierra Club, the Lawyer's Committee for Civil Rights Under Law, and the Black Mesa Trust, all of which were previously incorporated herein.

The Permit revision will also have significant environmental effects. *See e.g.* Comments by the Natural Resource Defense Council submitted under separate cover and previously incorporated herein. For example, hydrogeologists at the Interior Department's Office of Surface

Mining Reclamation and Enforcement have monitored the health of the N-aquifer since the late 1980s, and their records, together with data collected by the U.S. Geological Survey and the Peabody Coal Company itself, paint the picture of a system in decline. Since Peabody began using N-aquifer water for its coal slurry operations, pumping an average of 4,000 acre feet – more than 1.3 billion gallons – each year, water levels have decreased by more than 100 feet in some wells and discharge has slackened by more than 50 percent in the majority of monitored springs. There are reports that washes along the mesa's southern cliffs are losing outflow. There are also signs that the aquifer is being contaminated in places by low-quality water from overlying basins that leaks down in response to the stress caused by pumping. These developments threaten the viability of the region's primary water source.

OSM'S CONSIDERATION OF THE PERMIT APPLICATION IS A MAJOR FEDERAL ACTION THAT SIGNIFICANTLY AFFECTS THE QUALITY OF THE HUMAN ENVIRONMENT – OSM MUST BEGIN THE NEPA PROCESS EARLY ON AND PREPARE AN EIS.

We understand that OSM may agree that the revision triggers NEPA compliance. This decision is correct under the circumstances. OSM cannot overlook its well-established obligation to comply with NEPA. *See* 30 C.F.R. § 750.6(a)(7) ("OSM shall ensure compliance with the requirements of the NEPA [citations omitted] with respect to permitting actions for surface coal mining and reclamation operations on Indian lands."); *see also, e.g.* 30 C.F.R. § 746.13(b) (NEPA compliance on Mining Plan); 30 C.F.R. § 746.18(d) (Permit revisions that constitute a mining plan modification).

In determining the significance of a project and whether or not an EIS is required, the applicable regulations generally mirror those same elements discussed previously in determining whether or not to treat a revision as a new permit under 30 C.F.R. § 750.12(c)(3)(B). Thus, in light of the controversial nature, the cultural impacts and the environmental impacts that can likely be attributed to the proposed revisions, OSM's approval of the Permit would be a major federal action that significantly affects the quality of the human environment. *See e.g.* 40 C.F.R. § 1508.18 (defining "major federal action"); 40 C.F.R. § 1508.27 (defining "significantly"); 40 C.F.R. § 1508.14 (defining "human environment"). As a result, OSM is required to initiate the NEPA process and complete an EIS prior to deciding whether or not to approve the Permit application. *See e.g.* 40 C.F.R. § 1500.1(b) ("NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken."); 40 C.F.R. § 1501.2 ("Apply NEPA early in the process.").

OSM's publication of a Final Environmental Impact Statement for a prior Proposed Permit Application, Black Mesa-Kayenta Mine, Navajo and Hopi Indian Reservations, Arizona, in June 1990, has no bearing on OSM's obligation to review the Permit application under NEPA. In part: (1) the Permit application must be treated as a request for a new permit – a new permit of this magnitude requires preparation of an EIS; (2) there has been a lapse of approximately 12 years since the historic EIS was published; (3) as discussed briefly above, significant new data has been developed during these years including, but not limited to, publication of reports and the

issuance of studies recalculating recharge and drawdown from the N-aquifer; (4) as discussed briefly above, the revision is controversial and has generated considerable public interest; and (5) the revision will have significant impacts on the society and culture of the indigenous peoples living in the area – especially if their primary/sole and historic source of potable water is further depleted.

PUBLIC REVIEW UNDER SMCRA IS NOT A SUBSTITUTE FOR NEPA COMPLIANCE, WHICH MUST INFORM THE PUBLIC AND ENABLE THEM TO PARTICIPATE IN ALL ASPECTS OF THE DECISION-MAKING PROCESS

Although it is unclear at this time, we understand that OSM may be attempting to rely on the public review provisions of SMCRA to satisfy NEPA scoping requirements and that OSM intends to address other NEPA issues at a later date. It is; however, clear that no NEPA compliance will occur before the current deadline for public comments and objections pursuant to SMCRA on Peabody's revised Permit application. This bifurcation of the NEPA process is not consistent with either the spirit or the letter of the law. Among other things, it deprives the public of the ability to understand extremely technical and complex environmental issues, thereby significantly impeding the public's ability to present complete comments and objections.

As an initial matter, applicable NEPA regulations require the publication of a "notice of intent," as soon as practicable after OSM's decision to prepare an EIS and before the scoping process can begin. 40 C.F.R. § 1501.7. The notice of intent indicates that an EIS will be prepared and considered. The notice must, in part: (a) describe the proposed action and possible alternatives; and (b) describe the agency's proposed scoping process. 40 C.F.R. § 1508.22. We are unaware of OSM's publication of such notice.

We were similarly not aware that OSM has proposed and/or vigorously considered possible alternatives to the proposed action – as required in the notice of intent. Indeed, in commenting on the Permit revision a thorough disposition of alternatives, a basic tenet of NEPA compliance is neither developed nor even appropriate.

Similarly, OSM is required to specifically invite interested persons, including other federal agencies, tribes and local governments to participate in the scoping process. 40 C.F.R. § 1501.7. Under NEPA, however, interested persons not only need to be notified of the process, they need to be informed of substance. Thus, agencies are instructed to:

> Put together a brief information packet consisting of a description of the proposal, an initial list of impacts and alternatives, maps, drawings, and any other material or references that can help the interested public to understand what is being proposed. . . At this stage, [the very beginning of the scoping process] the purpose of the information is to enable participants to make an intelligent

> contribution to scoping the EIS. Because they will be helping to plan what will be examined during the environmental review, they need to know where you are now in that planning process.

CEQ, General Counsel Scoping Guidance at II.B.2. (April 30, 1981).

We are unaware of any such scoping documentation. Indeed, involvement of participants is currently limited to commenting on the Permit revision. OSM has not provided, nor does it appear ready to provide, sufficient "information ... to enable participants to make an intelligent contribution to scoping the EIS." Regrettably, OSM has not even provided sufficient information on the Permit revisions for interested persons to make completely informed comments under SMCRA, let alone in accordance with the broader scope of issues implicated under NEPA. Scoping the EIS is not even a topic of discussion at the present time. Without more, OSM cannot rely on the Permit comment process to satisfy the NEPA scoping requirement. Indeed, it is evident from the purpose of scoping, that it cannot be separated out from preparation of the EIS. It is part and parcel of the same process.

> [s]coping is not simply another "public relations" meeting requirement. It has specific and fairly limited objectives: (a) to identify the affected public and agency concerns; (b) to facilitate an efficient EIS preparation process, through assembling the cooperating agencies, assigning EIS writing tasks, ascertaining all the related permits and reviews that must be scheduled concurrently, and setting time or page limits; (c) to define the issues and alternatives that will be examined in detail in the EIS . . . ; and (d) to save time in the overall process by helping to ensure that draft statements adequately address relevant issues, reducing the possibility that new comments will cause a statement to be rewritten or supplemented.

CEQ, General Counsel Scoping Guidance, at I.B.

None of these "specific and fairly limited objectives" are being achieved through the public comment process on Permit revisions.

CONCLUSION

OSM is required to undertake the NEPA process, and issue an EIS, before it decides whether or not to approve the Permit application. One of the basic elements of NEPA compliance is maximizing informed public participation in the decision-making process. OSM has not adequately informed the public of the impacts of the proposed Permit revisions, even for purposes of submitting comments pursuant to SMCRA. OSM's current comment period, that is about to close, is clearly not adequate to meet the greater level of public involvement and scrutiny mandated by NEPA.

Even assuming, arguendo, that interested parties were fully informed for purposes of the current comment period, scoping under NEPA, and commenting on the Permit application, are neither meant to, nor do they, achieve the same objectives. OSM's failure to undertake appropriate scoping in the preparation of an EIS will increase the likelihood of litigation and likely result in long-term delays and inefficiencies in the EIS process itself. The preparation of an improperly informed EIS and/or the decision not to prepare an EIS are both final agency action subject to judicial review under the Administrative Procedure Act, 5 U.S.C. § 704.

Sincerely yours,

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Mr. Jerry D. Gavette
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April 26, 2002

Mr. Gavette,

On behalf of the Sierra Club, the Black Mesa Trust and each of its directors individually, the Lawyer's Committee for Civil Rights Under Law ("Lawyer's Committee"), and the Natural Resources Defense Council ("NRDC"), we submit the following comments and objections to the January 17, 2002 Peabody Western Coal Company request to the Office of Surface Mining Reclamation and Enforcement ("OSMRE") and to lift the administrative delay on the Permanent Program Permit or life-of-the-mine permit for the Black Mesa Mine and for approval of Peabody's request to incorporate the mining sequence for the J-23 coal reserve area in the BM2P3 application.

These are only one part of the comments being submitted to OSMRE on behalf of the organizations listed above. We incorporate by reference into our comments and objections those which are also being filed by the Black Mesa Trust, NRDC, and the Lawyers' Committee under separate cover, including all of the exhibits attached to each of the comments. Our comments and objections are submitted pursuant to 30 C.F.R. § 773.6(b) and we request that OSMRE consider these comments and objections and the attached exhibits when determining whether to issue the permit. In addition, we request and expect that OSM will also consider the materials referenced by our comments and by the comments of Black Mesa Trust, NRDC and the Lawyers' Committee which, although not attached as exhibits, are materials publicly available.

The Sierra Club is a national nonprofit environmental organization founded in 1892. It now has more than 700,000 members. The Arizona Chapter of the Sierra Club has over 11,000 members. The Colorado Plateau Group of the Sierra Club has over 700 members, 100 of whom live on or near Black Mesa. Since 1992, the Sierra Club's Environmental Justice Campaign has worked in partnership with communities of color and low-income communities on local environmental, health, and justice issues. The law firm of Hagens Berman & Mitchell is providing pro bono representation and submitting comments on behalf of the Sierra Club and the organizations listed above.

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The Lawyer's Committee is a national civil rights organization formed in 1963 to involve the private bar in assuring the rights of all Americans. For thirty-nine years, the Lawyer's Committee has represented victims of discrimination in virtually all aspects of life. In 1991, the Lawyer's Committee formed its Environmental Justice Project to represent communities of color in environmental and civil rights matters. We use the rule of law to challenge environmentally discriminatory conditions and decisions, and ultimately to seek justice, for people of color who are fighting to clean up contamination on the land where they live or who are fighting to stop environmentally harmful activities from occurring in their neighborhoods. The Lawyer's Committee has partnered with the law firm of Shearman and Sterling to provide pro bono representation to the Black Mesa Trust for issues related to the Black Mesa Mine and the Navajo Aquifer ("N-Aquifer"). Our comments are drawn from the Lawyer's Committee's long and varied experience with the administration and application of the nation's civil rights laws, including within the environmental context.

The Black Mesa Trust is a non-profit, tax-exempt educational and public advocacy organization headquartered on the Hopi Reservation. Many of the members of the Board of Directors of the Black Mesa Trust live on the Hopi Reservation. The Black Mesa Trust develops traditional and non-traditional teaching and learning opportunities to help Hopi and Navajo people understand issues and findings which bear on the well-being of the N-Aquifer, as well as steps they can take to protect this critical resource and preserve those aspects of Hopi and Navajo life that depend upon it.

NRDC is a national nonprofit environmental organization that uses law, science, and the support of its more than 500,000 members nationwide to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things. NRDC works to foster the fundamental right of all people to have a voice in decisions that affect their environment. It also seeks to break down the pattern of disproportionate environmental burdens borne by people of color and others who face social or economic inequities.

Thank you for the opportunity to provide written comments. We submit them for inclusion in the record being developed by OSM. Please do not hesitate to contact me if you have any questions or if we can provide any further assistance in this matter. I can be reached at (415) 977-5693.

Denise Hoffner-Brodsky

/S/

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CULTURAL IMPACTS

Comments and Objections: The Revised Black Mesa Mine Plan Has Profound Negative Cultural Impacts

In the beginning there was water-Paatuuwaqatsi
From the water came land-Tuuwaquatsi
Then all life was created-Qatsi
It was beautiful-Lomaqatsi! [1]

PEABODY'S CULTURAL IMPACTS ASSESSMENT IS WHOLLY INADEQUATE

Background

In 1990, the Office of Surface Mining and Reclamation Enforcement ("OSMRE") deferred its decision on whether to issue Peabody a permanent program permit "pending the analysis of additional information of water resource impacts."[2] The refusal to issue the permit was a prudent one, given the evidence of damage to the Navajo aquifer ("N-aquifer") and the resulting cultural impacts from that damage.[3] However, the promised analysis was abandoned.[4] Despite the mounting evidence of continuing N-aquifer damage and water depletion, Peabody's current proposal threatens to extract at a minimum, an additional 423,606,300 gallons of water from the N-aquifer per year.[5]

For years and years, Hopis and Navajos have been telling everyone who will listen that the pumping of their pristine water from the N-aquifer has been drying up their springs, wells and washes. The effects of this water loss are already being felt by farmers and ceremonial practitioners whose way of life is in jeopardy because water is a cornerstone of traditional Hopi and Navajo life.[6] The community's rallying cry has been, "Stop Peabody pumping by 2005." How has this plea been met? By a revised permit application that calls for an increase in N-aquifer water pumping by more than 30%.

The adverse cultural impacts of Peabody's pumping of N-aquifer water are legion. For traditional Hopis and Navajos, pumping water from the N-aquifer is a

[1] Black Mesa Trust Website-www.blackmesatrust.org
[2] OSM Press Release from July 6, 1990, "Interior Department Issues Permit for Kayenta Coal Mine, Defers Decision on Black Mesa."
[3] See NRDC comments on Hydrogeological Impacts, including all attachments, especially "Drawdown: Groundwater Mining on Black Mesa," ("Drawdown") and hydrogeological reports by Levine, Fricke Recon ("LFR").
[4] Drawdown, Chapter 1, p. 10.
[5] See Mine Permit Application and OSMRE public notice.
[6] In the short time available to prepare these comments, this writer has not had the opportunity to gather all the information necessary to address Navajo cultural impacts as comprehensively as Hopi cultural impacts. This is should not in any way be construed to mean that Navajo cultural impacts are not severe.

per se adverse cultural impact. The very act of extracting water, the source of all life, for industrial use, is in and of itself an affront to Hopi and Navajo traditional cultures. Hopi traditionalists believe "drilling will pierce the great water serpents, and cause them anger, thus drying up more springs."[7]

Peabody's depletion of the sole source of drinking water for Hopi and Navajo living on Black Mesa constitutes an adverse cultural impact. Peabody's depletion of sacred springs associated with traditional ceremonies constitutes an adverse cultural impact. The threat to and fear of losing the ability to live on Black Mesa in an interdependent self-sustaining way because of the depletion of water is an adverse cultural impact.

According to Leigh Kuwanwisiwma, Director of the Hopi Cultural Preservation Office, Hopi ceremonial practitioners are so plagued by worries about the health of the springs, that the usual clarity of mind and soul that Hopis need for their cultural and spiritual practice is clouded. Hopis believe they have a covenant with a deity named Ma'saw to safeguard the springs. There is real fear that unless Hopis stop Peabody's pumping, their sacred covenant will be broken. Thus, Hopi traditional cultural practices are being severely impacted. Mr. Kuwanwisiwma explained that some practitioners believe that by interfering with the natural balance of Hopi water, the water spirits are made so angry that they won't accept petitions for good things to come to the Hopi people. "These concerns integrally affect practitioners."[8]

THE MINE APPLICATION IS INCOMPLETE BECAUSE PEABODY FAILED TO IDENTIFY BLACK MESA AS A TRADITIONAL CULTURAL LANDSCAPE, A DISTRICT ELIGIBLE FOR INCLUSION IN THE NATIONAL REGISTER OF HISTORIC PLACES.

The National Register of Historic Places was created "to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment."[9] The 1992 amendments to the National Historic Preservation Act (NHPA)[10] made it clearer than ever before that Native American traditional cultural properties are eligible for the Register.

Traditional Cultural Properties are historic places that are culturally significant to a particular group or groups. In National Register *Bulletin 38*, the leading guidance document on traditional cultural properties, authors Thomas F. King and Patricia L. Parker assert "a location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world is a prime example of a place possessing "traditional cultural

[7] Techqua Ikachi-Land and Life the Traditional Viewpoint, Issue Number 14, p. 5.

[8] Conversation with Leigh Kuwanwisiwma, March 25, 2002.

[9] 36 CFR § 60.2

[10] USC § 470 et seq.

significance."[11] Such is Black Mesa to the Hopis.[12] Black Mesa is the sacred homeland of the Hopi people. It is central to their origin story which tells of a series of migrations that ultimately led the Hopi to Black Mesa; here is an excerpt:

> *Aliks'il* Listen! What follows is an account of the Hopi origin. The Hopis emerged into this, the Fourth World, from the *Sipapuni* in the Grand Canyon. Upon emerging, they encountered *Ma'saw*, the guardian of the Fourth World. A spiritual pact was made with *Ma'saw*, wherein the Hopis would act as the stewards of the earth. As a part of this pact, the Hopis vowed to place their footprints throughout the lands of the Fourth World as they migrated in a spiritual quest to find their destiny at the center of the universe. Hopi clans embarked on a long series of migrations that led them throughout the Southwest and beyond, settling for a time in various places. Following divine instructions, the Hopis continued their migrations until after many generations they arrived at their rightful place on the Hopi mesas.[13]

As evidence of this destiny, Hopis explain that they were led to the fingertips of what is known as the "Hopi hand," in large part, because of the abundance of springs in an otherwise arid land. Hopi refer to this place as *Tuuwanasavi*, which means center of the universe, or heart of mother earth. The development of Hopi society in the midst of what many would see as a hostile, desert environment is nothing short of miraculous and a testament to the spirit of the Hopi. For all these reasons, Black Mesa is a traditional cultural property that is eligible for inclusion in the National Register of Historic Places.

Black Mesa in its entirety meets the ACHP's definition of a "district." "A district is a geographically definable area, urban or rural, possessing a significant concentration, linkage or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history."[14]

A particular kind of district (or site, for that matter) is the "cultural landscape." A recent article in Cultural Resource Management entitled "Cultural Landscapes and the National Register" provides the definition of a cultural landscape: "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values."[15]

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[11] Patricia L. Parker & Thomas F. King, National Park Service, *National Register Bulletin 38, Guidelines for Evaluating and Documenting Traditional Cultural Properties (1990), revised in 1998.*
[12] See attached letter of support from Thomas F. King.
[13] T.J. Ferguson, Kurt Dongoske, Leigh Jenkins, Mike Yeats, and Eric Polingyouma, "Working Together: The Roles of Archaeology and Ethnography in Hopi Cultural Preservation," in Cultural Resource Management, Volume 16, Special Issue on Traditional Cultural Properties. 1993
[14] 36 CFR § 60.3
[15] Cari Goethcheus, "Cultural Landscapes and the National Register," In Cultural Resource Management, No. 1-2002. The definition comes from National Park Service, Cultural Resource Management Guideline, Release No. 5, 1997 (NPS-28), p. 179.

Black Mesa is the paradigmatic cultural landscape. Within its borders lie the rich cultural history of the Hopi, the Navajo and their ancestors, a unique set of natural and cultural resources that include the N-aquifer, and fish, wildlife and plants in great need of protection.[16] There has been some criticism of the National Register process as an artificial, piecemeal system which forces Native Americans in particular to engage in "cultural triage."[17] Instead, Indian people desire to reassemble the artificially disassociated components of their culture so that the fullest native cultural meanings associated with things and places are recognized and protected."[18]

Although a full explication of Black Mesa's eligibility is beyond the scope of these comments, it bears noting that Black Mesa easily satisfies the criteria for listing in the National Register. It is widely understood that the whole Black Mesa region is "associated with events that have made a significant contribution to the broad patterns of our history." (Criterion (a)).[19] *Bulletin 38* points out that the phrase "our history" refers to the group or groups who define the place as having traditional cultural significance.[20]

Similarly, Black Mesa satisfies Criterion (b) because of its association with Hopi deities.[21] Also applicable is Criterion (c)(4) because of the nature of the individual features comprising the Hopi cultural landscape. Criterion (d) may also apply, but criteria a-c are the most relevant to traditional cultural properties. It is incumbent upon OSMRE to see that appropriate ethnographic research is carried out to fully evaluate Black Mesa for the National Register of Historic Places.

PEABODY'S FAILURE TO IDENTIFY TRADITIONAL CULTURAL PROPERTIES IN THE AREA OF POTENTIAL EFFECTS VIOLATES OSMRE REGULATIONS

THE PERMIT APPLICATION VIOLATES 30 CFR § 779.12(b)(1) and 30 CFR § 779.24 (I)

Peabody has not satisfied the requirement of 30 CFR § 779.12(b)(1) to "describe and identify the nature of cultural, historic, and archaeological resources listed or eligible for listing on the National Register of Historic Places."[22] The revised Black

[16] See NRDC comment on Impacts to Fish, Wildlife and Plants. Water loss to critical aquatic and riparian habitats due to N-aquifer pumping may already be harming endangered and threatened species which hold special cultural meaning for the Hopi and Navajo. Similarly, threats to eagles and their habitats have tremendous cultural implications.
[17] Richard W. Stoffle, Davis B. Halmo, and Diane E. Austin, "Cultural Landscapes and Traditional Cultural Properties: A Southern Paige View of the Grand Canyon and Colorado River," p.1, at www.library.arizona.edu/users/jlcox/fall99/206/cultural1.htm
[18] Ibid. p.3.
[19] 36 CFR § 60.4
[20] *Bulletin 38*, pp.12-13.
[21] Ibid. p. 13
[22] 30 CFR § 779.12(b)(1)

Mesa Mine permit application is myopic in its consideration of cultural impacts. It only addresses what it calls the "J23 coal resource area." Peabody fails to address impacts caused by the increased demand for N-aquifer pumping. Despite the fact that Peabody's proposal calls for more than a 30% increase in water pumping from the N-aquifer, and that Hopi and Navajo people have been complaining for years that Peabody's pumping is materially damaging the N-aquifer, resulting in the depletion of sacred springs and washes, Peabody does not discuss any of the cultural impacts of its N-aquifer water use.

Peabody merely relies on reports of archaeological mitigation work and a report produced by The Hopi Cultural Preservation Office at the request of Peabody, which only addresses the J23 and J9 sites. Without an analysis of how the mining and N-aquifer pumping would affect other traditional cultural properties in the region, the application is fundamentally flawed and legally deficient.

In its cover letter to the application, Peabody states, "[c]hapter 13 of the application specifically outlines PWCC's procedures used to address *all* cultural resources." (*emphasis added;* letter page 3). However, after reading Chapter 13 in its entirety, it becomes clear that Peabody has not even considered the cultural impacts of N-aquifer pumping and the water depletion it has caused. With the passage of the 1992 amendments to the NHPA, both Peabody's and OSMRE's duty to protect traditional cultural properties has been made more explicit than ever before. Peabody's reliance on the work of the Black Mesa Archaeological Project (BMAP) to satisfy its responsibilities for cultural resource protection is misplaced, since BMAP has never considered the use, depletion and damage to the N-aquifer in its cultural context. Peabody's removal of exorbitant amounts of pristine N-aquifer water is adversely affecting places eligible for listing in the National Register of Historic Places.

Thus, Peabody's claim that "no further cultural resource work is required within the confines of the life-of-mine permit area" is unsupportable. [23] Peabody has thus failed to comply with 30 CFR §779.24(l), which requires applicants to submit maps showing the "locations of any cultural or historical resources listed or eligible for listing in the National Register of Historic Places and known archaeological sites within the permit and adjacent areas." The language of the regulation makes clear that the "cultural and historical resources" contemplated by the regulation encompass more than "archaeological sites within the permit and adjacent areas."

The regulations also provide that "[t]he regulatory authority may require the applicant to identify and evaluate important historic and archaeological resources that may be eligible for listing on the National Register of Historic Places, through

[23] Chapter 13 of the permit application p.8

Collection of additional information, Conduct of field investigations, or Other appropriate analyses."[24]

In an OSMRE guidance document entitled, "Technical Considerations for the Implementation of Historic Property Regulations," (the document is an attachment to the OSM Directive TSR-7 on Protecting Historic Properties) OSMRE outlines its protocol for determining whether to require the applicant to do more to identify places that may be eligible for the National Register. According to that protocol, OSMRE should require the applicant to conduct further research and analysis if "there is a "substantial likelihood" of the presence of unevaluated properties that may be eligible for the National Register." Based on the substantial evidence referenced in these comments, OSMRE should conclude there is such a substantial likelihood.

Moreover, the importance of Black Mesa to the Hopi and Navajo peoples should prompt OSMRE to invoke this provision. Better still, because OSMRE has a specific fiduciary duty to the Hopi and Navajo people, OSMRE should employ independent ethnographers to evaluate Black Mesa and its environs for traditional cultural properties, rather than relying on Peabody's account.[25]

THE APPLICATION VIOLATES 30 CFR § 780.31 and 30 CFR § 750.12(d)(2)(iii) and (iv)

Since Peabody failed to identify a large number of affected traditional cultural properties, it also failed to incorporate them into its mandatory Reclamation and Operation Plan. 30 CFR § 780.31 provides: ""For any places listed on the National Register of Historic Places that may be adversely affected by the proposed operation, each plan shall describe the measures to be used [t]o prevent adverse impacts." Peabody did not assess the adverse impact of its mine plan on Bacavi or Old Oraibi, which is entitled to heightened scrutiny because it is a National Historic Landmark subject to the protection of Section 110 of the NHPA.

The regulation puts ultimate responsibility on OSMRE by giving it the authority to "require the applicant to protect historic or archaeological properties listed on or *eligible* for listing on the National Register of Historic Places through appropriate mitigation and treatment measures..." For the same reason, the application violates 30 CFR § 750.12(d)(2)(iii) and (iv), which specifically requires the applicant to follow the ACHP regulations by creating a plan to identify traditional cultural properties in the area of potential effects. Peabody has not complied with this provision.

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[24] 30 CFR § 779.12(b)(2) I-iii

[25] While the SMCRA regulations give OSMRE discretion in this area, the Advisory Council on Historic Preservation's (ACHP) regulations precatory language mandates comprehensive and assertive action from OSMRE in identifying traditional cultural properties. See discussion below.

A permit application must be "complete" to even merit consideration. "Completeness" is satisfied only if the applicant provides all "the information required under Parts 778, 779, and 780."[26] Peabody has failed to describe and identify traditional cultural properties that are listed in or eligible for the National Register. Peabody has failed to map those sites and develop appropriate reclamation plans. These omissions render its application incomplete.

PEABODY'S APPLICATION VIOLATES THE ADVISORY COUNCIL ON HISTORIC PRESERVATION REGULATIONS GOVERNING SECTION 106

Where OSMRE's Historic and Cultural Protection Are Inconsistent with The Updated Advisory Council On Historic Preservation, Section 106 Regulations, The Section 106 Regulations Must Prevail

In January 2001, ACHP, the body charged with promulgating rules under the (NHPA), issued its final rule clarifying the Section 106 process.

According to the ACHP, "the coordination of Section 106 review has raised a number of policy issues regarding the ability of the Office of Surface Mining to adequately meet the intent and spirit of historic properties, of Section 106" in the context of OSMRE-approved state regulatory schemes. The ACHP calls the "provisions for addressing Section 106 review for SMCRA permits" "inadequate." (www.achp.gov/casearchive/caseswin01PA.html "Archive" of Prominent Section 106 Cases: Pennsylvania: Permit Modification for Mining under the Thomas Kent, Jr., Farm")

36 CFR § 800 et seq

Timing
OSMRE is required to start the Section 106 process "early in the undertaking's planning."[27] To our knowledge, the Section 106 process has not yet begun, yet the comment period for SMCRA purposes closes on April 29, 2002.

36 CFR § 800.2(C)(5) and (3) REQUIRES OSMRE TO CONSULT WITH INDIVIDUALS AND ORGANIZATIONS WITH A DEMONSTRATED INTEREST IN THE UNDERTAKING AS WELL AS REPRESENTATIVES OF LOCAL GOVERNMENTS

Legal protocol and respect for the sovereignty of Native American tribes certainly require federal agencies such as OSMRE to consult with tribal governments. However, OSMRE's duty to consult does not end there; in acknowledgment of the diversity of opinion borne of culture, history and politics, 36 CFR § 800.2(C)(5) allows for the addition of other parties to the consultation process. Specifically, this provision opens the door to those "individuals and organizations with a demonstrated interest in the undertaking...due to...concern with the

[26] 30 CFR § 777.15
[27] 36 CFR § 800.1(c)

undertaking's effects on historic properties." That means organizations like Black Mesa Trust must be brought to the table. In addition, the provision entitling local government representatives to participate as consulting parties means that traditional religious leaders and village representatives should be invited in as consulting parties.

Similarly, *Bulletin 38* advises "that expertise in traditional cultural values may not be found, or not found solely, among contemporary community leaders." *Bulletin 38* cautions "[i]n some cases, in fact, the current political leadership of a community or neighborhood may be hostile to or embarrassed about traditional matters. As a result, it may be necessary to seek out knowledgeable parties outside the community's official political structure."[28]

Lack of Coordination with Other Applicable Statutes

OSMRE's failure to coordinate its SMCRA process with other reviews violates both 36 CFR §800.3(b) and OSMRE regulations. The former requires the agency official to coordinate the steps of the section 106 process "with the overall planning schedule." Among the reviews requiring coordination are the National Environmental Policy Act ("NEPA")[29], the American Indian Religious Freedom Act ("AIRFA")[30], and the agency's own organic statute, the Surface Mining Control and Reclamation Act ("SMCRA").[31]

> OSMRE's own regulation at 30 CFR § 773.5 requires it to "coordinat[e] ..review and issuance of permits for surface coal mining and reclamation with applicable requirements of...The National Historic Preservation Act of 1966, as amended (16 U.S.C. 470, et seq.)...the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et. seq.), the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 et. seq.), the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 et seq); ...the Bald Eagle Protection Act as amended (16 U.S.C. 668a); for Federal programs only, the Archaeological Protection Act of 1979 (16 U.S.C. 470aa et seq) where Federal and Indian lands covered by that Act are involved.[32]

Despite these mandates, the public has been denied the benefit of both the Section 106 process and NEPA process before having to submit comments on the Black Mesa Mine Permit Application.

36 CFR § 800.4 of the ACHP regulations, entitled "Identification of historic properties" begins by outlining the federal agency's obligation to identify historic properties within the area of potential effects, in the proposed federal undertaking:

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[28] Bulletin 38, p. 8.
[29] 42 USC § 4321 et seq.
[30] 42 USC § 1996
[31] 30 USC § 1201
[32] 30 CFR § 773.5

(a)...the agency shall:

(1) Determine and document the area of potential effects, as defined in § 800.16(d);

(2) Review existing information on historic properties within the area of potential effects, including any data concerning possible historic properties not yet identified;

(3) Seek information, as appropriate, from consulting parties, and other individuals and organizations likely to have knowledge of, or concerns with, historic, properties in the area, and identify issues relating to the undertaking's potential effects on historic properties; and

(4) Gather information from any Indian tribe or Native Hawaiian organization identified pursuant to § 800.3(f) to assist in identifying properties, including those located off tribal lands, which may be of religious and cultural significance to them and may be eligible for the National Register, recognizing that an Indian tribe or Native Hawaiian organization may be reluctant to divulge specific information regarding the location, nature, and activities associated with such sites. The agency official should address concerns raised about confidentiality pursuant to § 800.11(c)

Under the ACHP regulations, to which OSMRE is subject, OSMRE has an affirmative duty to identify the area of potential effects and seek out traditional cultural properties as well as other properties that may be eligible for the National Register of Historic Places. In recognition of the fact that "in most instances the effects of projects are felt by historic properties beyond the immediate footprint of a project,"[33] the "area of potential effects" is meant to encompass a broad area:

> Area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.[34]

The N-aquifer, and the springs, wells and washes it feeds all fall squarely within the area of potential effects. As previously discussed, for most Hopis all of Black Mesa is an historic cultural property because Black Mesa is integral to the Hopi way of life.

[33] From discussion of this section in preamble to final rule. www.achp.gov/regspreamble.html, p.34

[34] 36 CFR § 800.16(d)

THE NATIONAL HISTORIC PRESERVATION ACT REQUIRES OSMRE TO MAKE A REASONABLE AND GOOD FAITH EFFORT TO IDENTIFY TRADITIONAL CULTURAL PROPERTIES[35]

36 CFR § 800.4(b)(1) puts a heavy burden on OSMRE "to make a reasonable and good faith effort" to identify historic properties, which include traditional cultural properties. In Pueblo of Sandia v. United States, 50 F.3d 856 (10th Cir. 1995), the Tenth Circuit used the standard advocated in *Bulletin 38*: a reasonable effort "depends in part of the likelihood that such properties may be present. The likelihood that such properties may be present can be reliably assessed only on the basis of background knowledge of the area's history, ethnography, and contemporary society." At its most basic level, the authors of *Bulletin 38* advise agencies to consult with the people in the community who "ascribe cultural significance" to the area.[36] OSMRE need look no further than members of the Hopi Tribe and Navajo Nation who have been speaking out publicly about the cultural effects of N-aquifer pumping.

§ 800.4 gives concrete examples of what may be expected of an agency in carrying out a "reasonable and good faith effort." "It may include background research, consultation, oral history interviews, sample field investigation, and field survey." Among the things OSMRE must take into account are "the magnitude and nature of the undertaking and the degree of federal involvement, the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within the area of potential effects."[37]

OSMRE'S TRUST RESPONSIBILITY TO THE HOPI TRIBE AND NAVAJO NATION ELEVATES ITS DUTY TO PROTECT CULTURAL RESOURCES

The potential effects of an increase in pumping of the N-aquifer by over 30% when the aquifer is already showing sure signs of damage are enormous.[38] Indeed, the destruction of the only source of drinking water for an ancient desert tribe whose cultural basis is the reverence for water, is nothing short of catastrophic. OSMRE as part of the Department of the Interior and the Federal Government, has a fiduciary duty to safeguard the natural resources of Native American tribes.[39] Therefore, it is incumbent upon OSMRE to both engage in a meaningful search to identify springs that have dried up and to take seriously the suggestion that Black Mesa itself is eligible for listing in the National Register of Historic Places.

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[35] 36 CFR § 800.4(b)(1)

[36] Bulletin 38, p. 6
[37] 36 CFR § 800.4
[38] See NRDC comments on Hydrogeology
[39] See Drawdown, and Black Mesa Trust comments on Trust Responsibility

OSMRE MUST APPLY THE ACHP CRITERIA FOR DETERMINING ADVERSE EFFECT TO BLACK MESA, THE N-AQUIFER AND SACRED SPRINGS

§ 800.5(1) states:

> [a]n adverse effect is found when an undertaking *may* alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. ..Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

There is no doubt that an increase in pumping the N-aquifer may alter the character of the aquifer, the springs and the whole of Black Mesa. The Hopi people believe that they were led by the great spirit Massau to Black Mesa and to the specific places where their ancestors built their villages because of the abundant source of pure water. The feeling and association with the story of Hopi origins and the underground water source is integral to the organizing principles of the Hopi belief system and way of life. Peabody readily admits the model it holds up as its best evidence that its extraction of N-aquifer water causes no damage, does not have the capability to evaluate effects on individual springs. Therefore, if OSMRE issues Peabody a permanent program permit or in any way allow an increase in N-aquifer pumping, Black Mesa, a sacred cultural landscape and the sacred springs that once flowed freely there would be adversely effect.

NEPA WILL BE VIOLATED IF OSMRE DOES NOT FULLY CONSIDER THE CULTURAL IMPACTS OF THE PROPOSED MINE PLAN REVISION

The National Environmental Policy Act (NEPA) requires environmental impact statements to "provide [a] full and fair discussion of significant environmental impacts."[40] The goal is to provide a thorough discussion so that the community is made aware of "the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." Ibid. The term "human environment" must be "interpreted comprehensively to include the natural and physical environment and the relationship of people with the environment."[41]

To satisfy NEPA requirements for determining the significance of an impact, OSMRE must consider "the unique characteristics of the geographic area such as proximity to historic or cultural resources...", and [t]he degree to which the action may adversely affect districts, sites, highways, structures, or objects listed

[40] 40 CFR § 1502.1
[41] 40 CFR § 1508.14

in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources." 40 CFR 1508.27(b)(3) and (8).

This means that it is not enough for OSMRE to merely accept Peabody's descriptions of how it thinks it has complied with cultural resource law. Nor is it enough to look at potential cultural impacts on the proposed mining leaseholds. Rather, OSMRE must assess for "direct effects," as well as "indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." [42] OSMRE must also consider the "cumulative impact" of Peabody's proposed increase in N-aquifer pumping and other aspects of the their application in tandem with the effects of past, present and foreseeable future use.[43]

WATER IS LIFE TO THE HOPI AND NAVAJO PEOPLE

Ma'saw gave the Hopi an ear of corn-that's the mother, the soul, a planting stick, that's technology, and a gourd of water, that's the aquifer.[44]

Water is central in Hopi cosmology. According to Hopi lore, the springs were "planted" in the land by deities or gifted individuals, their constant flow of water a reflection of the land's well-being and the Hopi's religious faith."[45] There is nothing more sacred to the Hopi than water as revealed, for example, by the sheer number of Hopi words and names that pertain to water.[46] For example, paa'u'uypi means "spring planter, the special device used for planting springs. Kwaavaho spring, near Moenkopi is named after a 19th century Hopi who planted that spring.

Early anthropologists took notice of the Hopi reverence for springs:

> In a general way every spring is supposed to be sacred and therefore a place for the deposit of prayer sticks and other offerings...[E]very spring is a place of worship and hence a shrine. (Fewes 1906:370-71)

[42] 40 CFR § 1508.8
[43] 40 CFR § 1508.7
[44] Vernon Masayesva, explanation of Hopi origins.
[45] Drawdown, Ch. 2, p. 6, citing Peter Whiteley and Vernon Masayesva, "Paavahu and Paanaqawu: The Wellsprings of Life and the Slurry of Death," in *Cultural Survival Quarterly* (1996): p.2.
[46] Hopi dictionary-Hopiiwa Lavaytutveni: A Hopi-English Dictionary of the Third Mesa Dialect. "Maybe half of all Hopi names" may be connected to water. Quoted in Peter M. Whiteley and Vernon Masayesva ,"Paavahu and Paanaqso'a-The Wellsprings of Life and the Slurry of Death" in "Rethinking Hopi Ethnography," Smithsonian Series in Ethnographic Inquiry, 1998 p.196. The discussion that follows is largely based on this article.

> [N]o spring in the region is without evidence of many offerings to the deities of water...Sacred Springs may ...be regarded as alters, and the offerings as sacrifices, whose essence may be carried by the water. (Hough 1906:165)[47]

Hopis believe that various water sources attract each other so that oceans, rivers, rain, aquifers and springs all act upon one another in a synergetic relationship. For Hopis, there is no division between water, the rest of the environment and the self. All is connected, with water playing an integral part in the individual and collective Hopi identity. Vernon Masayesva, Executive Director of Black Mesa Trust, former chair of the Hopi tribe and member of the Water Clan explains it this way:

> Western science describes neat but unconnected layers of aquifers. Hopi see the water underneath us as a living, breathing world we call Patuwaaqatsi, or "water-life." Plants breath in moisture from the sky, and cloud people reciprocate by pulling the moisture to the plants' roots. Hopi believe that when we die we join the cloud people and join in their journey home to Patuwaqatsi; and so all Hopi ceremonies are tied to the water world, and all the springs along the southern cliffs of Black Mesa serve as religious shrines or passageways to water-life.[48]

Springs and groundwater are home to Paaloloqangw, the "Plumed Water-Snake," the central deity in Snake and Flute ceremonies. During the Flute ceremony the Lenmongwi, the head of the Flute society dives to the bottom of a very sacred spring to offer prayer sticks to Paaloloqangw. Springs and their environs play key roles during Powamuy ("Bean Dance") and Niman ("Home Dance"). The whole spring area is sacred so that people utilize clay, reeds and spruce branches to bring the power of the spring to the village. Hopi routinely make 100 mile pilgrimages to bring back water from particular sacred springs.[49]

Spring water is used on a daily basis, to bless fields and to welcome babies into the world. Hopis regularly offer blessing at springs as they happen upon them. Certain springs are associated with certain clans, migrations and villages. "In this sense, then the living springs embody Hopi history: They are cultural landmarks, inscribed with significance, and commemorative reminders of the continuing legitimacy of clan rights and interests in specific areas."[50]

Hopi Tribe member Marilyn Masayesva, testifying to value of Hopi water remarked, "the water is priceless. No amount of compensation can replace the source of life for the Hopi and Navajo people."[51] In addition to the moral crisis posed by this water loss, Peabody's obligation to adequately fund a reclamation

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[47] Quoted in Peter M. Whiteley and Vernon Masayesva ,"Paavahu and Paanaqso'a-The Wellsprings of Life and the Slurry of Death" in "Rethinking Hopi Ethnography," p.193. The discussion that follows is largely based on this article.
[48] "Water Life: An Interview with Vernon Masayesva at www.nrdc.org/water/conservation/ivmblmesa.asp
[49] Opp. Cit. P. 193.
[50] Ibid. p.195.
[51] Quoted in Judith Nies, "The Black Mesa Syndrome: Indian Lands, Black Gold," in Orion, Summer 1998.

performance bond for a priceless, irreplaceable cultural resource is seriously called into question.[52]

EVIDENCE OF ADVERSE IMPACTS TO SPRINGS[53]

Reports of decreased water output from sacred springs and washes are commonplace on Black Mesa. A 1993 study found significant decline in several springs sacred to the Hopi. "Little Burro Spring and Burro Spring, sources of water for Hopi Grey Flute Society ceremonies, were depleted, as were the springs at Rock Ledge, Moenkopi,[Rock Coyote] and Pasture Canyon."[54] Other springs cited in "Drawdown" as suffering decreased flows include Many Farms, Whiskey, and Shonto. [55]

Accounts from individual Hopis and Navajos underscore the quantitative data. For example, Bertram Tsavadawa, is a Hopi currently living on Second Mesa, but originally from Oraibi. He's been giving walking tours on the Hopi Reservation, including in Old Oraibi for 8½ years. His family is from the Corn clan and his father-in-law is from the Water clan. Mr. Tsavadawa has seen first hand the effects on the springs. There were two springs on Oraibi but they are now dry. (See conversation below about Old Oraibi). Likewise, Toreva Spring is dry, too. Another dry Second Mesa spring is Huwehpami ("morning dove") Spring. Mr. Tsavadawa's friend once used the spring to water his crops, but now it has run dry.[56]

The Cumulative Hydrological Impact Assessment (CHIA) is supposed to be a measure of the health of the aquifer. CHIA criterion three set a standard by which to assess material damage to Hopi springs. According to this criterion (created by OSMRE), a decrease in spring water levels by 10% or more as a result of all mine-related activities indicate material damage to the N-aquifer. The actual data collected by both Peabody and the U.S. Geological Survey show the kind of decline indicative of material harm. Rather than rely on the actual data, OSMRE has relied on flawed computer models.[57]

Peabody admits in its updated Probable Hydrological Consequences (PHC) analysis that its numerical model cannot even begin to predict flow or lack thereof to individual springs. Rather, it purports "to make intelligent observations" (otherwise known as educated guesses) about regional flow.[58] It is both

[52] See comments on The Reclamation Performance Bond, submitted by Lawyers Committee and Shearman and Sterling.
[53] See BMT comment submitted by NRDC for detailed hydrogeological analysis. See also comments from FEIS, 1990).
[54] (Drawdown, Ch. 1, p. 6, citing Foster Associates, Inc., Study of Alternatives to Transport Coal, pp. E-7, E-9, E-12-15).
[55] Ibid.
[56] Telephone Interview, April 17, 2002
[57] See Drawdown Ch. 1
[58] Peabody Application, Chapter 18, pp. 39-40.

scientifically inadequate and cuiturally inappropriate to substitute an admittedly incomplete model which by definition is hypothetical, for observed decreases in flow at sacred springs that have already adversely impacted Hopis and Navajos. The inability of the PHC model to predict impacts to individual springs, renders Peabody's PHC and consequently, its application incomplete.[59] Moreover, on account of OSMRE's trust responsibility to the Hopi and Navajo people, which includes safeguarding the tribes' natural and cultural resources, OSMRE cannot issue a permanent program permit to Peabody because Peabody cannot say with any certainty that its activities will not adversely affect those resources.

PEABODY FAILED TO SUBMIT THE REQUIRED ASSESSMENT OF ITS CONTINUING AND INCREASING N-AQUIFER PUMPING ON PLACES ALREADY LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES

OLD ORAIBI- A NATIONAL HISTORIC LANDMARK ENTITLED TO HEIGHTENED PROTECTION

Old Oraibi was designated a National Historic Landmark in 1964 because of its distinction as the oldest continuously inhabited village in the United States.[60] This designation is reserved for a select few places listed in the National Register. Section 110 of the NHPA requires federal agencies, such as OSMRE to take even more care than usual to prevent harm to national historic landmarks. Peabody has not even considered the effects of pumping on Old Oraibi, although accounts by individuals Hopis describe dry springs, which are attributable to Peabody's pumping. (See previous discussion of Bertram Tsavadawa's eyewitness account).

BACAVI

Hopis are renown worldwide for their ingenious farming techniques. In fact, the village of Bacavi is listed on the National Register of Historic Places in large part because of its famed terrace farms, which were traditionally fed by Bacavi's five springs. At least one of those springs, the one lying lowest in the canyon, is in danger.[61] It has had uncharacteristic fluctuations in recent years; it dried up entirely two years ago. This is not only cause for alarm, but it triggers OSMRE's duty to "take into account" the negative consequences that a massive increase in water pumping will have on Bacavi, as a listed place on the National Register.[62]

Bacavi's proper name is Paaqavi which literally means reed "[b]ut more importantly, "paaqavi" is a Hopi word that describes a special place. "Paaqavi" is a natural spring on the Hopi Indian Reservation where bamboo and reeds grow.

[59] 30 CFR § 777.15
[60] See The National Historic Landmark database, and www.3mesas.com/hopi/mainhtml
[61] Conversation with Leigh Kuwanwisiwma, April, 2002.
[62] 30 CFR § 773.15(k)

The story is told that the Hopi people emerged into this fourth world through the paaquavi and thus it became the clan totem of the paaqavi clan." (www.channel1.com/users/brown/history.html)

As the federal agency charged with deciding whether to issue a surface coal mining permit, OSMRE must base its decision on its own analysis of information provided in the Peabody permit application or "from information otherwise available that is documented in the approval." [63]

OSMRE may only issue Peabody a permit if it makes *written findings* that it "has taken into account the effect of the proposed permitting action on properties listed on and eligible for listing on the National Register of Historic Places." [64] OSMRE has not taken such an accounting and therefore cannot support such findings.

OSMRE MUST ASSESS THE PERMIT AREA TO SEE IF IT CONSTITUTES "LAND UNSUITABLE FOR MINING"

Section 522(a)(3)(B)of SMCRA authorizes regulatory authorities to determine that an area is unsuitable for all or certain types of coal mining if it would affect fragile or historic lands in which such operations could result in significant damage to important historic, cultural, scientific, and esthetic values and natural systems.[65] Although the determination of "valid existing rights" by an applicant may exempt the applicant from this provision, the circumstances surrounding Peabody's acquisition of its mining leases were anything but "valid."

It is now well-established that John Boyden, the attorney who negotiated "on behalf" of the Hopi Tribe, was simultaneously representing Peabody. Moreover, Boyden had convinced the Bureau of Indian affairs to confirm him as General Counsel for the tribe, despite much objection. Boyden used his new power to manipulate the Hopi and ultimately create a Hopi Tribal Council that would favor coal interests over the more popular concern for Hopi culture and sovereignty.[66]

This sham process calls into question the very basis of Peabody's right to be mining water on Black Mesa. OSMRE should study this matter further and consider this history and context in making its decision about the Peabody permit.

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[63] 30 CFR §773.15
[64] 30 CFR § 773.15(k)
[65] 30 CFR § 761 et seq.
[66] See "Drawdown," Ch.2 which cites to several authoritative books on the subject, including, Charles Wilkinson, "Fire on the Plateau," Clemmer "The Road in The Sky," Benedek, "The Wind Won't Know Me."

THE AMERICAN INDIAN RELIGIOUS FREEDOM ACT REQUIRES THE GOVERNMENT TO PROTECT PLACES INTEGRAL TO AMERICAN INDIAN RELIGIOUS FREEDOM

AIRFA[67] was passed to guarantee to Native Americans the ability to exercise their traditional religions. For a traditional Hopi or Navajo, the damage being caused to Black Mesa water is akin to damaging a church. Or, as one Hopi explained to this Jewish writer as we stood over the place where Moenkopi wash once flowed freely, "we don't go to a building to pray. This is our temple. Having our water taken is like someone coming into your temple and taking your Torah." [68] For Christians, it would be akin to stealing the waters from the baptismal fountain.

OSMRE HAS AN OBLIGATION TO ABIDE BY THE EXECUTIVE ORDER ON NATIVE AMERICAN SACRED SITES AND THE EXECUTIVE ORDER ON ENVIRONMENTAL JUSTICE [69]

The Executive Order on Indian Sacred Sites,[70] was created to ensure that federal agencies, such as OSMRE are responsive to the concerns of Native Americans regarding their sacred sites. One of the goals of the Executive Order is to "avoid adverse effect on the physical integrity of such sacred sites."[71] Although the letter of the law pertains to federal lands rather than Indian lands, the spirit of the law evinces an intent to respect sites held sacred by Native Americans. OSMRE should bear this in mind during its evaluation of the Peabody permit.

INTERNATIONAL HUMAN RIGHTS LAW BEHOOVES OSMRE TO DO EVERYTHING IN ITS POWER TO SAFEGUARD BLACK MESA WATER

The United Nations Draft Declaration on the Rights of Indigenous Peoples affirms the rights of indigenous peoples "to strengthen their distinctive spiritual and material relationship with the lands, territories, [and] waters...which they have traditionally owned or otherwise occupied or used, and to uphold their responsibilities to future generations." (Draft United Nations Declaration on the Rights of Indigenous People (August 26, 1994, art. 25 at 552 (reprinted in International Legal Materials 34 (1995): p. 541) quoted in Drawdown, Ch. 2, p.6).

In the same spirit, the International Covenant of Civil and Political Rights, ratified by the United States asserts the right to "manifest religion or belief in worship, observance, [and] practice." (International Covenant on Civil Right and Political Rights, General Assembly Resolution 2200A (XXI)(Dec. 16, 1966, entry into force Mar. 23, 1976), art. 18 (reprinted in Center for Human Rights, *Human*

[67] 42 U.S.C. 1996

[68] Conversation with Leonard Selestewa, December, 2001

[69] See Lawyers Committee Notes on Environmental Justice

[70] Executive Order 13007, 61 Fed.Reg. 26,771(1996)

[71] http://hydra.gsa.gov/pbs/pt/call-in/factshet/0498/0498fact.htm

Rights: A Compilation of International Instruments (New York: United Nations, 1988)(U.N. Sales No. E. 88 XIV. 1), p. 26. The Covenant was ratified by the United States on September 9, 1992. See Public Notice 1853, Federal Register 54 (1993): p. 45934, quoted in Drawdown, Ch.2, p. 6).

CONCLUSION

OSMRE must deny Peabody's application for a permanent program permit and permit revision because of the harm that continues to be caused to Hopi and Navajo traditional cultural properties by the pumping of N-aquifer water. If OSMRE follows both the letter and the spirit of all applicable cultural resource and environmental laws, it will come to the only just conclusion—to deny Peabody's permit. The Hopi and Navajo people are relying on OSMRE to exercise its trust responsibility and safeguard the sacred land and waters of Black Mesa.

American Museum of Natural History

Division of Anthropology

April 22nd, 2002

Jerry D. Gavette
Black Mesa-Kayenta Mines Team Leader
Office of Surface Mining
1999 Broadway, Suite 3320
Denver, CO 80202-5733

Dear Mr. Gavette:

I write to express my concern about the proposed plan for Peabody Western Coal Company to increase water withdrawal from the Navajo Aquifer for the slurry pipeline to the Mohave Generating Plant. I am a cultural anthropologist, who has worked extensively in Hopi Reservation communities over the last twenty-two years (see, for example, my *Rethinking Hopi Ethnography*, Smithsonian Institution Press, 1998).

As you know, Hopi opposition to *any* continued pumping from the Navajo Aquifer has been very clearly expressed, especially in and since the Hearings on the Environmental Impact Statement for the Black Mesa-Kayenta Mine Proposed Permit Application of 1990. Hopi arguments that the pumping is seriously impacting their water supply, for now and for the future, are well supported by independent hydrological assessments. More than this, the threat to Hopi water has a direct and devastating impact on the persistence of Hopi culture itself: much Hopi natural-historical knowledge, and many Hopi religious ideas, ritual practices, social values, and aesthetic forms focus centrally on springs, rain, and ground-water, as the very source of life - human, animal, and vegetable. Attached please find an article I co-authored with Vernon Masayesva summarizing the cultural and hydrological issues ("The Use and Abuse of Aquifers: Can the Hopi Indians Survive Multinational Mining?" from *Water, Culture and Power: Local Struggles in a Global Context*, Island Press, 1998).

The proposal to increase pumping N-Aquifer water from 4,400 acre-feet per year to 5,700 acre-feet per year ignores the legitimate concerns of the majority of Hopi people. The Hopi have plausible fears that any continued pumping may constitute a major threat to their future life and livelihood. Further increasing the amount of water taken for the slurry from the N-Aquifer will only exacerbate that threat. I urge you to reject this proposal, and to develop and promote viable alternatives to the present means of transporting the coal to the Generating plant.

Sincerely

Peter M. Whiteley
Curator in North American Ethnology

Central Park West at 79th Street, New York, N.Y. 10024-5192, USA 212-769-5000

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Cultural Resource Impact Assessment and Negotiation, Archaeology, Writing, Training

April 17, 2002

Mr. Jerry Gavette
Office of Surface Mining Reclamation and Enforcement
1999 Broadway, suite 3320
Denver, CO 80202-5733

Subject: Peabody Western Coal Co. Permit Application

Dear Mr. Gavette:

I am writing to offer comments on Peabody Western Coal Company's application for a permit to expand its mining operations on Black Mesa. My comments related particularly to the manner in which OSM will comply with Section 106 of the National Historic Preservation Act in considering Peabody's application, and how it will address related legal requirements, notably the National Environmental Policy Act, the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act, and Executive Order 12898.

As you know, Section 106 requires that OSM take into account the effects of issuing the permit on historic resources – that is, districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. This "taking into account" involves following the regulatory direction set forth by the Advisory Council on Historic Preservation at 36 CFR 800. There are some discrepancies between the Advisory Council's regulations and OSM's. Since the former have recently been revised to comport with the 1992 amendments to the National Historic Preservation Act, and since they are the government-wide standards for Section 106 compliance, I assume that where there is a discrepancy with OSM's regulations, the Advisory Council's regulations will prevail.

Section 106 review is carried out in the broader context of project review under the National Environmental Policy Act (NEPA), whose implementing regulations require that the significance of impacts on the cultural environment be addressed not only with reference to the historic resources that are the subjects of Section 106 review, but on other cultural and scientific resources as well (See 40 CFR 1508.27(b)(3) and (8)). Executive Order 12809 requires that special attention be

given to cultural resources (among other aspects of the environment) of importance to low income and minority groups. The American Indian Religious Freedom Act (AIRFA) provides for special attention to be given to Indian tribal religious concerns, and the Native American Graves Protection and Repatriation Act (NAGPRA) requires that the potential for disturbance to ancestral Native American graves and cultural items be considered in consultation with culturally affiliated tribes. Finally, of course, OSM shares the Federal government's general fiduciary responsibility to protect tribal trust assets.

My strong recommendation to you, based on some thirty-five years practice in cultural resource management, is not to approach each of these requirements separately, but to try to deal with them in a comprehensive manner. All the requirements overlap with one another, and all require – either explicitly or by implication – consultation with concerned and affected parties, such as the Hopi and the various organizations concerned about Black Mesa and the N-aquifer. I hope that you will without delay undertake serious consultations with all concerned parties in accordance with the Section 106 and NAGPRA regulations, with reference to the standards established by Executive Order 12898 to ensure full participation by low-income and minority groups.

The Section 106 regulations require that OSM, in consultation with pertinent State and Tribal Historic Preservation Officers (SHPOs and THPOs), Indian tribes, and other interested parties, establish the "area of potential effects" of the proposed mine expansion. Considering the widespread projected water-related impacts of the project, it seems likely that at least the Arizona and New Mexico SHPOs should be consulted, together with at least the Hopi and Navajo THPOs. The "area of potential effects" must include all areas subject to potential direct, indirect, and cumulative impacts, including visual, auditory, and other effects (See 36 CFR 800.5(a)(1) and .16(d)). The necessary inclusiveness of the area of potential effects may not be fully understood by Peabody, which has a long history of supporting archeological research on its lease and as a result may tend to equate "effect" with the sort of physical effect that is of prime concern to archeologists.

Within the area of potential effects, the regulations require that a "reasonable and good faith effort" be made to identify historic resources. Such resources, of course, include both places already included in the National Register of Historic Places and those that meet the criteria for inclusion in the Register (36 CFR 60.4). Here again it is possible that Peabody may interpret OSM's responsibilities too narrowly, focusing overmuch on archeological sites. Archeological sites are important, of course, but traditional cultural places, often including expansive landscapes of cultural and spiritual value to Indian tribes, must also be considered and may in many ways be far more important. Natural features like buttes, springs, rock outcrops, and cliffs may be significant traditional cultural places. At the same time, under other authorities it is necessary to consider impacts on broader types of cultural resources, such as Hopi and Navajo ways of life and

religious beliefs, and on such specific resources as Native American graves and cultural items.

I suggest that it would be most realistic, and efficient, to regard the entire Black Mesa area as a landscape/district that is eligible for the National Register. There is little doubt in my mind but that it has such significance in the eyes of Hopi elders and traditionalists, and I think it would save all concerned a great deal of time and trouble simply to acknowledge this fact and move on to considering the effects of the mine expansion on the eligible resource. It also strikes me that the N-aquifer almost certainly contributes to the area's eligibility, inasmuch as it charges the springs that are of critical importance in the traditional Hopi way of life and religion. Those ways of life and religious concerns are certainly "cultural resources" within the meaning of 40 CFR 1508.27(b)(3) and (8), and must be considered under AIRFA as well.

Having established that an eligible resource (Black Mesa) will be affected, OSM is next required to consider the proposed expansion's potential adverse effects on the resource – again in consultation with all concerned parties. Here, of course, cultural resource impacts run together with impacts on natural resources, all involving possible drawdowns on the N-aquifer. The broad-based, face-to-face, good-faith consultation provided for by the Section 106 and NAGPRA regulations may provide an ideal forum in which to hash out whether these impacts will occur, how serious they may be, and what if anything can be done about them. As you know, such consultation under Section 106 leads either to a Memorandum of Agreement or to a comment by the Advisory Council that the Secretary considers before making a final decision on the action.

In summary, what I am urging is that you promptly initiate broad-based consultation with all concerned parties about the impacts of the proposed expansion under all the pertinent cultural resource legal requirements, that you define the area of potential effect broadly enough to embrace all potential direct, indirect, and cumulative effects, that you consider the entire Black Mesa landscape to be eligible for the National Register for purposes of Section 106 review, and that you continue to consult with everyone concerned about the possible impacts of the expansion and possible means of impact mitigation.

Thank you for the opportunity to comment.

Thomas F. King, PhD

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April 26, 2002

Mr. Jerry D. Gavette
Office of Surface Mining
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733

Mr. Gavette,

On behalf of the Lawyer's Committee for Civil Rights Under Law ("Lawyers' Committee"), the Black Mesa Trust and each of its directors individually, the Natural Resources Defense Council ("NRDC"), and the Sierra Club, we submit the following comments and objections to the January 17, 2002 Peabody Western Coal Company request to the Office of Surface Mining to lift the administrative delay on the Permanent Program Permit or life-of-the-mine permit for the Black Mesa Mine and for approval of Peabody's request to incorporate the mining sequence for the J-23 coal reserve area in the BM2P3 application.

These are only one part of the comments being submitted to the Office of Surface Mining ("OSM") on behalf of the organizations listed above. We incorporate by reference into our comments and objections those which are also being filed by the Black Mesa Trust, NRDC, and the Sierra Club under separate cover, including all of the exhibits attached to each of the comments. Our comments and objections are submitted pursuant to 30 C.F.R. § 773.6(b) and we request that OSM consider these comments and objections and the attached exhibits when determining whether to issue the permit. In addition, we request and expect that OSM will also consider the materials referenced by our comments and by the comments of Black Mesa Trust, NRDC, and the Sierra Club which, although not attached as exhibits, are materials publicly available.

The Lawyers' Committee is a national civil rights organization formed in 1963 to involve the private bar in assuring the rights of all Americans. For thirty-nine years, the Lawyers' Committee has represented victims of discrimination in virtually all aspects of life. In 1991, the Lawyers' Committee formed its Environmental Justice Project to represent communities of color in environmental and civil rights matters. We use the rule of law to challenge environmentally discriminatory conditions and decisions – and ultimately – to seek justice for people of color who are fighting to clean up contamination on the land where they live or who are fighting to

stop environmentally harmful activities from occurring in their neighborhoods. The Lawyers' Committee has partnered with the law firm of Shearman and Sterling to provide pro bono representation to the Black Mesa Trust for issues related to the Black Mesa Mine and the Navajo Aquifer ("N-Aquifer"). Our comments are drawn from the Lawyers' Committee's long and varied experience with the administration and application of the nation's civil rights laws, including within the environmental context.

The Black Mesa Trust is a non-profit, tax-exempt educational and public advocacy organization headquartered on the Hopi Reservation. Many of the members of the Board of Directors of the Black Mesa Trust live on the Hopi Reservation. The Black Mesa Trust develops traditional and non-traditional teaching and learning opportunities to help Hopi and Navajo people understand issues and findings which bear on the well-being of the N-Aquifer, as well as steps they can take to protect this critical resource and preserve those aspects of Hopi and Navajo life that depend upon it.

NRDC is a national nonprofit environmental organization that uses law, science, and the support of its more than 500,000 members nationwide to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things. NRDC works to foster the fundamental right of all people to have a voice in decisions that affect their environment. It also seeks to break down the pattern of disproportionate environmental burdens borne by people of color and others who face social or economic inequities.

The Sierra Club is a national nonprofit environmental organization founded in 1892. It now has more than 700,000 members. The Arizona Chapter of the Sierra Club has over 11,000 members. The Colorado Plateau Group of the Sierra Club has over 700 members, 100 of whom live on or near Black Mesa. Since 1992, the Sierra Club's Environmental Justice Campaign has worked in partnership with communities of color and low-income communities on local environmental, health, and justice issues. The law firm of Hagens Berman & Mitchell is providing pro bono representation and submitting comments on behalf of the Sierra Club and the organizations listed above.

Thank you for the opportunity to provide written comments. We submit them for inclusion in the record being developed by OSM. Please do not hesitate to contact me if you have any questions or if we can provide any further assistance in this matter. I can be reached at (202) 662-8600.

Mary M. O'Lone
Environmental Justice Project Director

Mark Tanney, Esq.
Shearman & Sterling

Attachments

cc: John Humphrey, Esq.
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COMMENTS AND OBJECTIONS TO J-23 LIFE-OF-MINE (LOM) MINE PLAN/ BLACK MESA PERMANENT PROGRAM PERMIT (BM2P3) APPLICATION SUBMITTED BY PEABODY WESTERN COAL COMPANY

I. BACKGROUND AND INTRODUCTION

"The Black Mesa Mine is currently authorized to operate by the OSMRE under Initial Program Permit AZ-0001 and the administrative delay provisions of 30 C.F.R. 750.11(c)." Letter to Jerry Gavette, Office of Surface Mining Reclamation and Enforcement, from Randy Lehn, Manager Reclamation & Engineering, Black Mesa Mine, Peabody Western Coal Company, dated August 10, 2001, at 1. ("Peabody August 10, 2001 letter"). Permit AZ-0001 was issued on January 29, 1982. Peabody Western Coal Company, "Mining and Reclamation Plan Black Mesa and Kayenta Mines" ("Permit Application"), Chapter 1, at 1 (Revised 07/01/97). Since Permit AZ-0001 was issued before the promulgation of the permanent Indian land SMCRA regulations, Peabody filed another application for a permit on October 31, 1984 incorporating the information in the 1982 permit. On July 10, 1985, OSM authorized Peabody to operate after May 28, 1985 in the AZ-0001 permit area. Id., Chapter 1, at 1 (Revised 07/01/97).

In the mid-1980s, Peabody submitted a life-of-the-mine mining plan and applied for permit approval for the entire Black Mesa Complex. Id., Chapter 1, at 1 (Revised 07/01/97). However, OSM's "decision on issuance of a permit under the Indian lands permanent regulatory program has been administratively delayed by the Secretary of the Department of Interior [consistent with the Federal regulations at 30 CFR 750.11(c)] due to ongoing discussions concerning the Little Colorado River litigation." http://www.wrcc.osmre.gov/BlkMsaQ&A/background_black_mesa.htm. Thus, the Kayenta Mine operates under Permanent Program Permit AZ-0001 and the Black Mesa Mine operates under Interim Program Permit AZ-0001. Permit Application, Chapter 1, p. 2 (Revised 01/15/02).

In its letter requesting a revision to the Black Mesa Mine Permanent Program Permit (BM2P3) Application dated January 17, 2002, Peabody requests approval to incorporate the mining sequence for the J-23 coal reserve area ("permit revision") in the BM2P3 application. Letter to Jerry Gavette, Office of Surface Mining Reclamation Enforcement, from Randy Lehn, Manager Reclamation & Engineering, Black Mesa Mine, Peabody Western Coal Company dated January 17, 2002, ("Peabody January 17, 2002 letter"), at 1. Peabody estimates with approval of the revision, the life of the Black Mesa Mine will be extended until 2016 with almost 61.4 million tons of coal produced between 2005 and 2016. Peabody projects that withdrawals of ground water from the N-Aquifer will increase from 4,400 acre-feet to 5,700 acre-feet annually.

Peabody requests both approval of the permit revision and the lifting of the administrative delay on the life-of-the-mine permit by January 2004. Moreover, Peabody requests that OSMRE "limit its review to only the materials in the application that are changing as a result of this and the August 10, 2001 submittals." Id., at 1.

The following comments and objections are divided into seven sections. Section I has provided background and introductory information (p. 1). Section II objects to the premature closing of the public comment period on the grounds that the Permit Application is not yet administratively complete (p. 2). Section III argues for the identification of Peabody Energy

Company as the true applicant and the review of the Permit Application on that basis (p. 11). Section IV addresses deficiencies in the reclamation performance bond proposed in the Permit Application (p. 17). Section V argues that the Permit Application should be denied until surface water impoundment violations at the Black Mesa Mine complex are abated (p. 24). Section VI addresses procedural defects in the permitting process and associated environmental justice issues arising from the Permit Application (p. 28). The Conclusion is Provided in Section VII (p. 37).

II. CLOSING OF THE PUBLIC COMMENT PERIOD IS PREMATURE BECAUSE PEABODY'S PERMIT APPLICATION IS NOT ADMINISTRATIVELY COMPLETE

The regulatory regime established in Chapter VII of Title 30 of the Code of Federal Regulations establishes clear requirements for the closing of public comment periods. These regulations require that, before OSM can close a public comment period on a surface coal mining permit application, an applicant must have submitted an administratively complete application and after doing so have met specified public notice requirements. With respect to the Permit Application for Surface Coal Mining Operations on Black Mesa and Kayenta Mines submitted by Peabody Western Coal Company (the "Permit Application"), the Office of Surface Mining Reclamation and Enforcement ("OSM") has determined that the public comment period will close on April 29, 2002. However, none of the regulatory requirements for closing the comment period have been met with respect to the Permit Application. As a result, the deadline for closing the public comment period on the Permit Application that OSM has imposed is not grounded on any statutory or regulatory requirements, and it is therefore not only premature, but also arbitrary and capricious. To remedy this clear error, OSM should extend the public comment period until the requirements of Chapter VII of Title 30 of the Code of Federal Regulations for closing public comment periods on surface coal mining permit applications have been met.

A. Under the Regulations, the Public Comment Period Cannot Close Before the Permit Application is Administratively Complete

The Surface Mining Control and Reclamation Act of 1977 ("SMCRA"), 30 U.S.C. Section 1231, et seq., sets forth the requirements for all applications for permits to mine surface coal on Indian lands. The regulations implementing SMCRA are set forth in 30 C.F.R. §§ 700 to end. [1]

The regulations governing the permitting of surface coal mining and reclamation operations, 30 C.F.R. §§ 700 to end, establish a precise sequence of events that must occur before the time is ripe to close the public comment period for a surface coal mining permit application. First, an application must be administratively complete. 30 C.F.R. § 773.6(a)(1) (making public notice of the permit application effective only "[u]pon submission of an

[1] Subchapter E of Title 30, Parts 750 et seq., provides for the regulation of surface coal mining and reclamation on Indian lands. 30 C.F.R. § 750.1. Subchapter E incorporates certain sections of Subchapter G, Parts 772 et seq., regarding permit applications, 30 C.F.R. § 750.12, and all of Subchapter J, Parts 800 et seq., regarding bonding, 30 C.F.R. § 750.17.

administratively complete application"). Once an application is administratively complete, the permit applicant then may proceed to meet certain requirements for providing effective notice to the public that it has submitted a complete permit application. Id. These required steps include a requirement that the applicant "place an advertisement in a local newspaper of general circulation in the locality of the proposed surface coal mining and reclamation operation at least once a week for four consecutive weeks." Id.[2] Persons who have adversely affected interests then have thirty days from the fourth consecutively weekly publication of such a notice to submit such written comments and objections. See 30 C.F.R. § 773.6(b) ("Written objections to an application . . . may be submitted to the regulatory authority by any person having an interest which is or may be adversely affected by the decision on the application . . . within 30 days after the last publication of the newspaper notice required by paragraph (a) of this section.").

The purpose underlying this regime is to afford "any person having an interest which is or may be adversely affected by the decision on the application" to submit written comments or objections to the application. See 30 C.F.R. § 773.6(b)(1). Sensibly, the regime recognizes that for such comments or objections to be meaningful the permit application must be administratively complete so that it contains all the information necessary for effective administrative and public review. See 30 C.F.R. § 773.6(a) (conditioning public notice on an administratively complete application). The regime also recognizes the need for effective public notice so that any person with an adversely affected interest is afforded an opportunity to learn that his or her interest is adversely affected. See generally references cited below in Section VI addressing Procedural and Environmental Justice Issues. Not requiring administrative completeness and effective public notice before the closing of the public comment period infringes the rights of persons whose interests are adversely affected. The absence of required information from the permit application and ineffective public notice each prevent such persons from becoming aware of, and therefore from being able to comment on or object to, aspects of the proposed operations that are adverse to their interests. Indeed, in many instances the absence of certain information might prevent a party from being capable of recognizing at all that she or he has an adversely affected interest.

Thus, unless an applicant has submitted an administratively complete application to OSM, an applicant cannot complete the steps required for providing effective public notice of its permit application. Absent completion of these steps, the 30-day clock on public comments cannot start. As noted, the adequacy of the public notice, public participation process, and access to information associated with this Permit Application are discussed more fully below in Section VI addressing Procedural and Environmental Justice Issues.

B. The Permit Application Is Not Administratively Complete

SMCRA and the regulations set forth in 30 C.F.R. § 700 to end, require applicants to provide certain information regarding violations of environmental laws to the Office of

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[2] It is important to note that these particular requirements that trigger the countdown to the end of the public comment period represent only a portion of a permit applicant's obligations with respect to providing effective public notice. Additional public notice requirements are discussed more fully below in the section on Procedural and Environmental Justice Issues.

Surface Mining Reclamation and Enforcement ("OSM") and condition the granting of a mining permit upon this and other information available to OSM.

Chapter VII of Title 30 of the Code of Federal Regulations establish a clear standard for completeness: an "administratively complete application" must contain "information addressing each application requirement of the regulatory program" and "all information necessary to initiate processing and public review." 30 C.F.R. § 701.5. Included in the application requirements is the requirement that the application "shall include at a minimum . . . the information required under parts 778, 779, and 780" of Chapter VII of Title 30 relating to legal, financial, compliance, environmental resource, reclamation, operational and other general information. 30 C.F.R. § 777.15 (emphasis added). The burden to demonstrate that a permit application meets this requirement is on the applicant. See 30 C.F.R. § 773.7 ("The applicant for a permit or revision of a permit shall have the burden of establishing that his application is in compliance with all the requirements of the regulatory program.").

As shown below, the Permit Application submitted for the Black Mesa and Kayenta Mines falls far short of the requirements for administrative completeness under 30 C.F.R. §§ 701.5 and 777.15. The Permit Application fails to address each application requirement of the regulatory program, particularly the minimum information required under 30 C.F.R. §§ 778-780. Nor does the Permit Application contain all the information necessary to initiate processing and public review. As a result, the applicant has failed to meet its burden of demonstrating that its application is complete.

1. The Permit Application Does Not Meet the Minimum Standard for Legal, Financial, Compliance, and Related Information under Part 778

The Permit Application does not meet the minimum standard for legal, financial, compliance, and related information under 30 C.F.R. § 778. The Permit Application does not provide information addressing each application requirement under 30 C.F.R. § 778. Nor does the Permit Application provide all information necessary to initiate processing and public review with respect to these requirements.

First, although the Permit Application was submitted to OSM by Peabody Western Coal Company, the Permit Application does not clearly identify which Peabody entity purports to be the applicant and therefore does not provide the identifying information about the applicant required by the regulations. See 30 C.F.R. § 778.11. As a result, the Permit Application does not provide any of the information regarding the applicant required under Part 778 of C.F.R. Title 30 in a manner sufficient for review by OSM or by the public. In particular, the Permit Application fails to provide the following information required under 30 C.F.R. § 778.11:

- Applicant's name, address, and telephone number, 30 C.F.R. § 778.11(b)(1);
- A statement of whether the applicant is a corporation, partnership, sole proprietorship, or other business entity, 30 C.F.R. § 778.11(a)(1);

- Applicant's taxpayer identification number, 30 C.F.R. § 778.11(a)(2);

- Certification, made under oath, by "the natural person with the greatest level of effective control over the entire proposed surface mining operation . . . that he or she controls the proposed surface coal mining operation," 30 C.F.R. § 778.11(d);

- With respect the person making the certification required under 30 C.F.R. § 778.11(d), the person's name, address, telephone number, position title, relationship to applicant, percentage of ownership of the applicant, location in the organizational structure, and date the person began functioning in his or her current position, 30 C.F.R. § 778.11(e).

Second, in response to the requirements of 30 C.F.R. § 778.12 regarding the provision of permit history information, the Permit Application purports to provide a list of all issued and expired mining permits and all pending mining permits for Peabody Holding Company, Inc. However, the information provided falls short of the regulation's requirements. In particular, the Permit Application fails to provide the following information:

- List of all names under which the applicant, its operator, its partners and principal shareholders, and its operator's partners or principal shareholders operate or have operated a surface coal mining operation within the five-year period preceding the date of final submission of the Permit Application on January 17, 2002, 30 C.F.R. § 778.12(a);

- For both the applicant and operator for the Permit Application, any of the required information regarding pending permits for the period between the date the list was created, February 21, 2000, and the date of final submission of the Permit Application on January 17, 2002, 30 C.F.R. § 778.12(b);

- For both the applicant and operator for the Permit Application, any of the required information regarding coal mining operations owned or controlled for the period between the date the list was created, February 21, 2000, and the date of final submission of the Permit Application on January 17, 2002, 30 C.F.R. § 778.12(c);

- For any surface coal mining operation owned or controlled by the permittee or the operator during the five years prior to the date of final submission of the Permit Application on January 17, 2002, (i) the full name and address of the operator and permittee of that operation; (ii) the taxpayer identification number of the operator of that operation; (iii) the full name of the regulatory authority with jurisdiction over the permit; a clear statement the permittee's relationship to that operation including the permittee's percentage of ownership of the operation and the permittee's location in the organizational structure; (iv) and the operator's relationship to that operation including the operator's percentage of ownership of that operation and the operator's location in the organizational structure, 30 C.F.R. § 778.12(c).

Third, with respect to the requirements of 30 C.F.R. § 778.13 regarding property interest information, the Permit Application provides no "statement of all interests, options, or pending bids" held or made for lands contiguous to the proposed permit area. 30 C.F.R. § 778.13(c).

Fourth, in response to the requirements of 30 C.F.R. § 778.14 regarding violation information, the Permit Application provides a Notice-of-Violation list for Notices of Violation issued between August 14, 1997 and November 23, 1999 to Peabody Western Coal Company ("PWCC"), its subsidiaries, affiliates, or persons controlled by or under common control with PWCC. In addition, it provides a certification by PWCC that as of May 18, 2000 any notices of violations by "the applicant or its parent companies for which the abatement period has not yet expired" are in the process of being corrected to the satisfaction of the agency with jurisdiction over the violation. The Permit Application also states that in the five-year period prior to May 18, 2000 neither PWCC nor its principal shareholders have had a State or Federal Mining permit revoked nor have forfeited a performance bond or similar security deposited in lieu of a bond. This response falls short of the requirements of 30 C.F.R. § 778.14 in failing to provide the following information:

- Whether the applicant, its operator, or any subsidiary, affiliate or entity that the applicant or operator owns or controls had a Federal or State permit for surface coal mining operations suspended or revoked between May 18, 2000 and the date of final submission of the Permit Application on January 17, 2002, 30 C.F.R. § 778.14(a)(1);

- Whether the applicant, its operator, or any subsidiary, affiliate or entity that the applicant or operator owns or controls forfeited a performance bond or similar security deposit between May 18, 2000 and the date of final submission of the Permit Application on January 17, 2002, 30 C.F.R. § 778.14(a)(2);

- A list of all violation notices received by the applicant or the operator for any surface coal mining and reclamation operation between November 23, 1999 and the date of final submission of the Permit Application on January 17, 2002, 30 C.F.R. § 778.14(c);[3]

- Certification that any violation identified in a notice of violation issued under 30 C.F.R. § 843.12, or its State regulatory equivalent, and with respect to which the notice of violation remained in effect between May 18, 2000 and the date of final

[3] A duplicate of the copy of Compliance Information Section of the Permit Application (Chapter 3, Attachment 1, Exhibit E) that we received from OSM is included herein as Attachment E. The Compliance Information included a 17-page list, dated May 19, 2000 and titled "Peabody Holding Company: Notice of Violation List." The first 14 pages, numbered consecutively as pages 1 through 14, contained Notices of Violations ("NOV's") issued between August 14, 1997 and November 23, 1999. Each of these 38 NOV's pertained to the Black Mesa Mine or Kayenta Mine. The last three pages – numbered as pages 6, 60, and 1 – contained NOV's issued between March 3, 1997 and March 22, 2000. Of the eight violations on the final three pages, four pertained to Peabody Coal Company sites other than Black Mesa Mine or Kayenta Mine, three pertained to Eastern Associated Coal Corp., and one pertained to Rochelle Coal Company.

submission of the Permit Application on January 17, 2002, is being abated or corrected to the satisfaction of the agency with jurisdiction over the violation, 30 C.F.R. § 778.14(c)(7);

- Description of any actions taken to abate or correct any violations not covered by 30 C.F.R. § 778.14(c)(7), 30 C.F.R. § 778.14(8).

Fifth, P & L Coal Holdings Corporation Secretary Jeffery L. Klinger provided an affidavit dated July 27, 1999 certifying that an employee of Peabody Holding Company, Inc., is authorized to provide information on violations of environmental laws related to P & L Coal Holdings Corporation and its related operating companies. Aside from having been executed nearly three years prior to the date of final submission of the Permit Application on January 17, 2002, this certificate does not meet the regulatory requirements of 30 C.F.R. § 778.9. Part 778.9 requires that applicants either (1) certify to OSM that all relevant information in the Applicant/Violator System is accurate, complete and up-to-date, (2) where information is missing from AVS or incorrect in AVS, submit the necessary information or corrections to OSM for input into AVS and swear or affirm that the information submitted is accurate and complete, or (3) include in the permit application the information required under Part 778. 30 C.F.R. § 778.9. Absent one of these three actions, the Permit Application cannot be complete. The Permit Application reflects none of the three.

2. The Permit Application Does Not Meet the Minimum Standard for Legal, Financial, Compliance and Related Information Under Part 778 Because It Does Not Provide Information Regarding the True Applicant

The Permit Application also fails to meet the minimum standard for legal, financial, compliance and related information because it fails altogether to provide information regarding the "true applicant" for the permit, Peabody Energy Corporation ("Peabody Energy"), formerly known as P & L Coal Holdings Corporation.[4] For further discussion of the true applicant issue, see the section on Peabody Energy as the True Applicant below. Because Peabody Energy is the true applicant, but has not been identified as such in the Permit Application, the Permit Application necessarily fails to meet any of the requirements for providing information regarding the applicant.

With respect to the true applicant Peabody Energy, the Permit Application fails to provide the following applicant, operator and ownership and control information under 30 C.F.R.

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[4] The name "Peabody Energy Corporation" appears nowhere in the application. The applicant simply may have been negligent in failing in its numerous permit application amendments to provide to the public reviewing its application and to the OSM staff with the relevant information. However, more than one year ago on April 10, 2001 "P & L Coal Holdings Corporation," the wholly owning indirect parent of Peabody Western Coal Company, changed its name to "Peabody Energy Corporation." Peabody Energy Corporation failed to amend its application to reflect this change, even though notified its investors and the Securities & Exchange Commission of the change. See, e.g., Peabody Energy Corp. 10-K, Dec. 31, 2001, at 5.

§ 778.11. This information is deficient in respects that are in addition to those identified above regarding the applicant, operator and ownership and control information required under 30 C.F.R. § 778.11:

- Statement of the applicant's corporate status as a corporation, partnership, sole proprietorship, or other business entity, and its taxpayer identification number, 30 C.F.R. § 778.11(a);

- Applicant's resident agent for accepting service of process and its person responsible for submitting the Coal Reclamation Fee Report (Form OSM-1) and for remitting the reclamation fee payment to OSM, 30 C.F.R. § 778.11(b);

- Name, address, and telephone number, title, and relationship to the applicant (including percentage of ownership, location in the organization structure, and the date the person began functioning in that position) for each of the applicant's officers, directors, persons performing a function similar to a director, persons owning 10 to 50 percent of the applicant, persons owning or controlling the applicant, and natural persons with the greatest level of effective control over the entire proposed surface mining operation, 30 C.F.R. § 778.11(c)-(e);

- From the natural person with the greatest level of effective control over the entire proposed surface mining coal mining operation, a certification, under oath, that he or she controls the proposed surface coal mining operation. 30 C.F.R. § 778.11(d).

The Permit Application also fails to provide full permit history information for Peabody Energy as required by 30 C.F.R. § 778.12 in addition to the deficiencies in the permit history information identified above.

The Permit Application also fails to provide full violation history information for Peabody Energy as required by 30 C.F.R. § 778.12 in addition to the deficiencies in the violation history information identified above.

3. The Permit Application Does Not Meet the Minimum Requirements for Information on Environmental Resources Under Part 779

The Permit Application does not meet the minimum standard for information on environmental resources under 30 C.F.R. § 779. The Permit Application does not provide information addressing each application requirement under 30 C.F.R. § 779. Nor does the Permit Application provide all information necessary to initiate processing and public review with respect to these requirements.

In particular, the Permit Application fails to provide an adequate description and identification of the nature of cultural, historic and archeological resources listed or eligible for listing on the National Register of Historic Places and known archeological sites within the

proposed permit and adjacent areas as required under 30 C.F.R. § 779.12(b)(1). See the written comments by the Sierra Club regarding "Cultural Impacts," which address the deficiencies in the description and identification of the nature of cultural, historic and archeological resources. The Sierra Club comments have been incorporated herein by reference noted in the cover letter to the present comments.

The Permit Application also fails to provide adequate climatologic information as required by 30 C.F.R. § 779.18, particularly with regard to rainfall and the impact of the mining operations on the availability of surface and ground water. In addition, the Permit Application fails to provide an adequate description of the vegetative resources as required by 30 C.F.R. § 779.19 identifying native plant communities; and an adequate description of soil resources as required by 30 C.F.R. § 779.21. See the written comments by NRDC et al. dated April 26, 2002 regarding "Groundwater and Fish, Wildlife & Plants," which address the deficiencies in the fish, wildlife and vegetation information and plans. The NRDC comments have been incorporated herein by reference noted in the cover letter to the present comments.

4. The Permit Application Does Not Meet the Minimum Standard for Reclamation and Operation Plans Under Part 780

The Permit Application does not meet the minimum standard for reclamation and operation plans under 30 C.F.R. § 780. The Permit Application does not provide information addressing each application requirement under 30 C.F.R. § 780. Nor does the Permit Application provide all information necessary to initiate processing and public review with respect to these requirements.

The greatest deficiency in this regard is the failure of the Permit Application to provide adequate hydrologic information and an adequate hydrologic reclamation plan addressing the effects of the pumping of water from the N-Aquifer as required under 30 C.F.R. § 780.21(h) and other applicable sections. See the written comments by NRDC et al. dated April 26, 2002 regarding "Groundwater and Fish, Wildlife & Plants," which address the deficiencies in the hydrologic reclamation plan. The NRDC comments have been incorporated herein by reference noted in the cover letter to the present comments.

The Permit Application also fails to provide an adequate survey of fish and wildlife resources and an adequate fish and wildlife protection and enhancement plan as required under 30 C.F.R. § 780.16. The scope and level of detail for such information is inadequate and reflects a significant lack of effort to identify and protect species and habitats in and around the mining area and in the areas that will be affected by the mining. See the written comments by NRDC et al. dated April 26, 2002 regarding "Groundwater and Fish, Wildlife & Plants," which address the deficiencies in the fish, wildlife and vegetation information and plans. The NRDC comments have been incorporated herein by reference noted in the cover letter to the present comments.

The Permit Application also fails to provide an adequate blasting plan under 30 C.F.R. § 780.13 that protects adversely affected parties from vibrations and airblasts and that adequately monitors the effects of these blasts on persons in surrounding areas and particularly

the affects on areas downwind of the mine for effects on the health of persons, animals, and vegetation and for damage to property. Likewise the Permit Application fails to provide an adequate air pollution control plan under 30 C.F.R. § 780.15 for monitoring air quality and for controlling fugitive dust. Like the blasting plan, the air pollution control plans fails to address the needs of persons, animals, vegetation and property downwind from the mine for effects on the health of persons, animals and vegetation and for damage to property. In neither the blasting plan nor the air pollution control plan are these considerations adequately addressed.

In addition to the particular failings of the hydrologic reclamation plan referenced above, the Permit Application also fails to provide an adequate general reclamation plan required under 30 C.F.R. § 780.18 and other sections of Part 780. The vegetation and landscape of the mining area are unique and the proposed reclamation does not provide adequately provide for revegetation involving the return of native plants over a reasonable timetable or for redistribution of the soils in an adequate manner to restore the landscape to as close as possible to its original character. See the written comments by NRDC et al. dated April 26, 2002 regarding "Groundwater and Fish, Wildlife & Plants," which address the deficiencies in the fish, wildlife and vegetation information and plans. The NRDC comments have been incorporated herein by reference noted in the cover letter to the present comments.

The Permit Application also fails to adequately address the protection of publicly owned parks and historic places that will be affected under the mining as required by 30 C.F.R. § 780.31. For example, a number of publicly owned parks and historic places rely on water from the N-Aquifer, and yet the Permit Application provides no analysis of the impact of the proposed pumping of N-Aquifer water on these parks and historic places at all.

5. The Permit Application Does Not Meet Other Completeness Standards

The Permit Application does not meet the minimum standards for completeness in other regards. The Permit Application fails to provide all information necessary to initiate processing and public review with respect to certain other aspects of the application requirements.

In particular, the applicant has chosen to perform bonding calculations relating to some application requirements of the regulatory program but not others. In particular the applicant has chosen not to present any bonding calculations related to hydrologic reclamation of the N-Aquifer. The absence of such bonding calculations is a glaring omission. Given the potential consequences of damage to the aquifer and the potential enormity of the cost of remedying them, a hydrologic reclamation bond could be quite substantial relative to other bonding requirements. Thus, the bonding calculations provided create a misleading impression of the total potential cost of reclamation and of the ability or willingness of the applicant to secure a bond sufficient to protect any natural resources that could be damaged by the proposed mining operations. As a result, the Permit Application is gravely deficient and does not contain the information necessary for administrative and public review. For additional discussion of this issue, see generally Section IV on the Reclamation Performance Bond below.

C. OSM Should Extend the Period for Public Comments Through the Time Provided for in the Chapter VII of Title 30 of the Code of Federal Regulations

As this extensive list of deficiencies shows, the Permit Application does not meet the minimum standard for provide information as required under 30 C.F.R. §§ 778-780 and lacks certain other information necessary to initiate processing and public review. As a result, the Permit Application comes up woefully short of meeting the requirements for administrative completeness under 30 C.F.R. §§ 701.5 and 777.15. Only once the Permit Application is complete, can the public notice steps required by 30 C.F.R. § 773.6(a) be effected. Only after the required public notice steps of 30 C.F.R. § 773.6(a) have been completed, may the 30-day clock provided for in 30 C.F.R. § 773.6(b)(2) begin to count down to the end of the public comment period. Prior to those events occurring, any decision to close the public comment period has no basis in the law and is premature, arbitrary, and capricious.

III. PEABODY ENERGY CORPORATION IS THE "TRUE APPLICANT" AND OSM SHOULD REVIEW THE PERMIT APPLICATION ON THAT BASIS

OSM should use its authority to pierce the corporate veil of Peabody Western Coal Company ("PWCC") and of PWCC's direct and indirect parents to identify Peabody Energy Corporation ("Peabody Energy") as the "true applicant" for the Permit Application. Congress's statutory scheme for regulating surface coal mining assumes that the actual controller of the proposed operations, not its mere agent, is the focus of OSM's regulatory review. In the present case, Peabody Energy is the "the true locus of control" over PWCC and the Black Mesa and Kayenta Mines. As a result, OSM should identify Peabody Energy as the "true applicant," require of Peabody Energy that it produce all the information that SMCRA and Chapter VII of Title 30 of the Code of Federal Regulations require of a permit applicant, and review the Permit Application on the basis that Peabody Energy in all material respects is the permit applicant.

A. OSM Should Use Its Authority to Pierce the Corporate Veil to Find the "True Applicant"

Among the purposes of SMCRA are "to protect society and the environment from the adverse effects of surface mining operations" and to "assure that surface coal mining operations are so conducted as to protect the environment." 30 U.S.C. 1202. To this end, section 510(c) of SMCRA provides that where "any surface coal mining operation owned or controlled by the applicant is currently in violation of the Act or [any law, rule, or regulation of the United States, or of any department or agency in the United States pertaining to air or water environmental protection], the permit shall not be issued until the applicant submits proof that such violation has been corrected or is in the process of being corrected to the satisfaction of the regulatory authority, department, or agency which has jurisdiction over such violation . . . ." 30 U.S.C. 1260(c). The threat of such a penalty provides a substantial incentive to applicants to remain in compliance with U.S., tribal, state and local environmental laws.

Section 510(c) is "unmistakably clear . . . that when 'any surface coal mining operation owned or controlled by the applicant' is currently in violation of SMCRA, the permit

shall not be issued." National Mining Association v. United States Department of the Interior, 105 F.3d 691, 694 (D.C. Cir. 1997) (quoting 30 U.S.C. 1260(c)). However, OSM should not rely on the representations made in a permit application as to the identity of the "true applicant." National Mining Association, 105 F.3d at 695 (addressing OSM's power "once OSM has determined that it has the true applicant before it"). Rather, OSM itself should determine "who the 'applicant' is." Id. (emphasis in original). See also Kavanaugh v. Ford Motor Company, 353 F.2d 710, 717 (7th Cir. 1965) ("It is settled doctrine that the fiction of corporate entity will be disregarded whenever it has been adopted or used to evade the provisions of a statute.").

The authority of regulatory agencies, including OSM, to reach through the corporate veil to identify the true applicant is well-established. See, e.g., National Mining Association, 105 F.3d at 695 ("OSM has the authority where there is subterfuge to pierce the corporate veil in order identify real applicant."). In exercising its regulatory authority, a regulatory agency is "entitled to ascertain, and base its findings upon, the true locus of control." Mansfield Journal Co. v. FCC, 180 F.2d 28, 37 (D.C. Cir. 1950) (upholding the Federal Communications Commission's authority to pierce the corporate veil of a license applicant to review the activities of the applicant's parent). To that end, where appropriate "to carry out statutory objectives, it is frequently necessary to seek out and give character to the identity and characteristics of the controlling officers and stockholders of a corporation." Mansfield Journal Co., 180 F.2d at 37. See also Capital Telephone Company, Inc. v. Federal Communications Commission, 498 F.2d 734, 738 (D.C. Cir. 1974) ("The courts have consistently recognized that a corporate entity may be disregarded in the interests of public convenience, fairness and equity.") (citing Taylor v. Standard Gas & Electric Co., 306 U.S. 307, 322, 59 S.CT. 543, 83 L.Ed. 669 (1939); Chicago Milwaukee & St. Paul Ry. Co. v. Minneapolis Civic & Commerce Ass'n. 247 U.S. 490, 500-501, 38 S.Ct. 553, 62 L.Ed. 1229 (1918)). In fact, "[w]hat is disturbing is the mechanistic, metaphysical incantation of the doctrinal bar of the corporate veil. Such doctrines lose much of their sancrosanctity when urged in the context of regulated industries. The fact that a subsidiary corporation exists should be a starting point for searching inquiry, not the finish line." Capital Telephone Company, Inc., 498 F.2d at 738.

To carry out SMCRA's statutory objective of assuring that mining operations are "so conducted as to protect the environment," Congress did not intend for "true applicants" to be able to hide behind corporate forms that do not reflect the true operational nature of their enterprises. Rather, where "the true locus of control" of a surface coal mining operation is located in an entity other than the purported applicant, OSM should give effect to SMCRA's purpose by using its authority to "pierce the corporate veil in cases of subterfuge in order to ensure that it has the true applicant before it." National Mining Association, 105 F.3d at 695.[5]

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[5] OSM should use particular care with respect to the present Permit Application because OSM has a heightened duty with respect to the review of permit applications involving resources on Indian lands. For a fuller discussion of the implications of OSM's trust responsibilities for the review of the Permit Application, see comments submitted by Black Mesa Trust under separate cover regarding the standard of proof that the applicant must meet in cases involving Indian lands and OSM's heightened duty of care arising from its fiduciary duties in such circumstances. The separate comments by Black Mesa Trust on standard of proof and OSM's heightened duty have been incorporated herein by reference noted in the cover letter to the present comments.

B. Peabody Energy Corporation is the "True Applicant" for the Black Mesa and Kayenta Mines Permit

Long before the finish of any "searching inquiry" into the relationship between Peabody Energy Corporation ("Peabody Energy") and the operations at the Black Mesa and Kayenta Mines, see Capital Telephone Company Inc., 498 F.2d at 738, Peabody Energy emerges clearly as the "true locus of control" for the operations of those mines and should be held accountable as the true permit applicant.

1. Domination and Control of Decision-Making

Peabody Energy dominates and controls the operations at the Black Mesa and Kayenta Mines. The executive and corporate decision-making process with respect to the Black Mesa and Kayenta Mines makes this clear.[6] Peabody Energy leases the coal rights to the Black Mesa and Kayenta Mines through a series of subsidiaries: Peabody Energy (formerly known as P & L Coal Holdings Corporation) wholly owns Peabody Holding Company, Inc., which wholly owns Interior Holdings Corporation, which wholly owns Peabody Coal Company, which wholly owns Peabody Western Coal Company ("PWCC"), which holds the lease rights. See Attachment A (Permit Application, Ch. 3, Att. 1, Ex. B).

Of the eight members of the PWCC board of directors identified in the permit application, seven are current officers or directors of PWCC's parent Peabody Coal Company and one is a past director of Peabody Coal Company. See Attachment B (Permit Application, Ch. 3, Att. 1, Ex. A). Six of the eight listed PWCC officers and directors also serve as officers and directors of PWCC's great-grandparent Peabody Holding Company, Inc., including Richard M. Whiting, who serves as President of both of Peabody Holding Company, Inc. and of P & L Coal Holdings Corporation (now Peabody Energy), and Roger B. Walcott, Jr., who serves as the only executive vice president of each company. See id.

PWCC's parent Peabody Coal Company likewise is dominated by its parent Interior Holdings Corporation, its grandparent Peabody Holding Company, Inc., and its great-grandparent Peabody Energy. Four of the six Peabody Coal Company directors and officers identified in the OSM AVS database are also directors or officers of both Peabody Holding Company, Inc. and of Peabody Energy. See Attachment C (AVS System Report, Wed., Apr. 24, 2002, 15:53:38 MDT 2002). The Permit Application identifies all five of Interior Holdings Corporation's reported officers and directors as also being officers or directors of its parent Peabody Holding Company, Inc. See Attachment B (Permit Application, Ch. 3, Att. 1, Ex. A). It further identifies four of the five Interior Holding Corporation officers and directors as also being officers or directors of Peabody Energy's predecessor in name, P & L Coal Holdings Corporation. See id. Finally, according to the OSM AVS database, all but one of Peabody

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[6] As noted above, the Permit Application fails to provide the updated corporate information required by the regulations, including information regarding officers and directors. Moreover, the information provided in the Permit Application appears inconsistent with the information provided in the OSM AVS database. Nonetheless, even the incomplete and inconsistent information available provides substantial evidence of Peabody Energy's ability to dominate of the Black Mesa and Kayenta Mines.

Energy's officers and directors also are officers or directors of Peabody Holding Company, Inc. See Attachment C (AVS System Report, Wed., Apr. 24, 2002, 15:53:38 MDT 2002). Moreover, Irl F. Engelhardt serves as president, chairman, and/or chief executive officer of Interior Holdings Corporation, Peabody Holding Company, Inc., and Peabody Energy. See Attachment B (Permit Application, Ch. 3, Att. 1, Ex. A).

In addition, the Permit Application locates the offices of the Peabody Coal Company, Interior Holdings Corporation, Peabody Holding Company, Inc., and Peabody Energy all on the seventh floor of 701 Market Street, St. Louis, MO, 63101-1826, with the offices of Peabody Holding Company, Inc. and Peabody Energy being located in the same suite. See id. The Permit Application also lists the same phone number for each of the four 701 Market Street companies: 314-342-3400. See id.

2. Actual Control and Public Holding Out

Peabody Energy operates and holds itself out as the owner and operator of the Black Mesa and Kayenta Mines. On April 11, 2001, Irl F. Engelhardt, as Chairman and Chief Executive Officer of the entire Peabody Group of companies, met with Interior Secretary Gale Norton to lobby the Department to grant the Permit Application for the Black Mesa and Kayenta Mines. See Attachment D (Letter from Irl F. Engelhardt to Secretary of the Interior Gale Norton, April 17, 2001). No notes made by Secretary Norton or any other U.S. officials who attended the meeting, nor any other documents produced in relationship to it, have been made part of the record of decision in this case.[7] However, in a letter already a part of the administrative record of decision in this case, Chairman Engelhardt tells Secretary Norton that "[t]he first matter I want to present to you, however, deals specifically with our venture on Black Mesa with the Navajo and Hopi Tribes. Peabody operates two coal mines on Black Mesa . . . . We operate the Black Mesa Mine." See id. (emphasis added). Later in the letter Chairman Engelhardt again refers to the role of the Peabody Group as a whole: "Peabody believes it is time for the Black Mesa Mine to be awarded a permanent permit. . . . Peabody stands ready to assist and cooperate with you in any way appropriate as the Interior Department works through the permitting process." See id.

Even the Permit Application itself contains admissions that provide evidence that the Black Mesa and Kayenta Mines are controlled by the parents of PWCC rather than by PWCC itself. The Compliance Information provided in the Permit Application describes all the companies identified in the Notice of Violations List provided as being "subsidiaries, affiliates, or persons controlled by or under common control with PWCC." See Attachment E (Permit Application, Chapter 3, Attachment 1, Exhibit E, at 1). This list includes Peabody Coal Company, Eastern Associated Coal Company, and Rochelle Coal Company. See id. According to the Organizational Chart for the P & L Family of Companies provided in the Permit

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[7] We would request at this time that any notes made by Secretary Norton and any U.S. Government officials who attended the meeting with Irl Engelhardt on April 11, 2001 be made a part of the administrative record of decision for the Black Mesa and Kayenta Mine Permit Application, along with any other documents that were created in anticipation of, during, or as a result of this meeting. The only related document that is part of the administrative record of decision at this time is a letter from Irl F. Engelhardt to Secretary Gale Norton on April 17, 2001.

Application, the only common parents that Peabody Coal Company and Eastern Associated Coal Company have are Peabody Holding Company, Inc. and P & L Holdings Corp. (now Peabody Energy). See Attachment A (Permit Application, Ch. 3, Att. 1, Ex. B).[8] The same document states that records of violations for PWCC are maintained at the offices of the General Counsel of Peabody Holding Company, Inc., at 701 Market Street, St. Louis, MO. See Attachment E (Permit Application, Chapter 3, Attachment 1, Exhibit E, at 1). The reliance upon a corporate parent either for central record keeping or for provision of legal services provides strong evidence that the subsidiary itself is not able to or does not function as a fully independent entity.

In addition, in Peabody Energy's filings with the Securities and Exchange Commission, Peabody Energy represents to its investors that "we own and operate mines in Arizona" and that as part of its "Southwest Operations" "[w]e own and manage four mines in the western bituminous coal region – two in Arizona, and one in each of Colorado and New Mexico." See, e.g., Attachment F (Peabody Energy Corporation 10-K, Dec. 31, 2001, at 4, 6, Disc. Pages 5, 8). See also Attachment G (Prospectus Offering 9,000,000 Shares of Peabody Energy Common Stock, Apr. 5, 2002, at 1, Disc. Page 16 ("In the west, we own and operate mines in Arizona . . . .")). Peabody Energy makes clear that the two Arizona mines that it "own[s]," "operate[s]," and "manage[s]" are "[t]he Black Mesa Mine, which is located on the Navajo Nation and Hopi Tribe reservations in Arizona" and "[t]he Kayenta Mine [which] is adjacent to the Black Mesa Mine." Attachment F (Peabody Energy Corporation 10-K, Dec. 31, 2001, at 6-7, Disc. Page 8). See also Attachment F (Note 11 (Leases) to 2001 Consolidated Financial Statements of Peabody Energy Corporation, at 47, Peabody Energy Corporation 10-K, Dec. 31, 2001, at Disc. Page 173) ("The Company [Peabody Energy] also leases the coal production at its Arizona mines from the Navajo Nation and Hopi Tribe . . . ." (parenthetical phrase added))). In its public filings targeted at its investors, Peabody Energy consolidates the coal in the Black Mesa and Kayenta Mines in its coal production and its tonnage of coal reserves yields from "our operating mines." See Attachment F (Peabody Energy Corporation 10-K, Dec. 31, 2001, at 21, Disc. Page 28-29 (Chart, Production and Assigned Reserves (identifying, as part of the total Peabody Energy coal production and assigned proven and probable reserves, the Black Mesa Mine and Kayenta Mine coal production for 2000 and 2001 and the Black Mesa Mine and Kayenta Mine assigned proven and probable reserves as of December 31, 2001))). It also consolidates the sales from its Black Mesa and Kayenta Mines as part of its own total sales volume figures and boasts of "higher demand at both of our Arizona mines," which were met due to "our previous capital investments." Id. at 32, Disc. Page 47 (emphasis added).

Peabody Energy likewise represents to investors that the revenue and liabilities from the Black Mesa and Kayenta mines are its own. Profit from the mines of the "Southwest region" also is attributed to Peabody Energy. Id. at 36, Disc. Page 51 ("In the Southwest region, we realized increased operating profit of $12.1 million as a result of improved productivity and higher sales volume in fiscal year 2001." (emphasis added)). Peabody Energy also appears to

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[8] Rochelle Coal Company, recipient of NOV #400011 by the Wyoming Department of Environmental Quality is not identified on the Organizational Chart for the P & L Family of Companies. Compare Attachment A (Permit Application, Ch. 3, Att. 1, Ex. B) with Attachment E (Permit Application, Chapter 3, Attachment 1, Exhibit E, at 1).

include liabilities for the leases, land reclamation and other related liabilities at the Black Mesa and Kayenta Mines on its own balance sheet. See id. at 12, Disc. Page 15-16 (not distinguishing between those operations for which Peabody Energy recognizes land reclamation liabilities on its balance sheet and those from which it claims protection of limited corporate liability); see Attachment G (Prospectus Offering 9,000,000 Shares of Peabody Energy Common Stock, Apr. 5, 2002, at 6, Disc. Page 21 (failing to distinguish those operations for which it claimed protection of limited corporate liability: "As of December 31, 2001, we had outstanding surety bonds with third parties for post-mining reclamation totaling $684.9 million")); see Attachment F (Note 11 (Leases) to 2001 Consolidated Financial Statements of Peabody Energy Corporation, at 47, Peabody Energy Corporation 10-K, Dec. 31, 2001, at Disc. Page 173 (discussing leases from Navajo Nation and Hopi Tribe as part of Peabody Energy's "lease obligations . . . secured by outstanding surety bonds and letters of credit totaling $140.4 million")).

Peabody Energy also has structured its finances in such as way as to dominate and control the Black Mesa and Kayenta operations. Peabody Energy's Senior Credit Facilities (both Senior Notes and Senior Subordinated Notes) are secured by a first priority lien of certain of its own and of its domestic subsidiaries' assets. See Attachment F (Note 15 (Long-Term Debt) to 2001 Consolidated Financial Statements of Peabody Energy Corporation, at 50, Peabody Energy Corporation 10-K, Dec. 31, 2001, at Disc. Page 178); see Attachment F (Note 29 (Supplemental Guarantor/Non-Guarantor Financial Information) to 2001 Consolidated Financial Statements of Peabody Energy Corporation, at 64, Peabody Energy Corporation 10-K, Dec. 31, 2001, at Disc. Page 199). The Black Mesa and Kayenta operations may be included among those "Restricted Subsidiaries" that cannot "create or otherwise cause any encumbrance or restriction on the ability of such Restricted Subsidiary to pay any dividends or make certain other upstream payments subject to certain exceptions." See Attachment F (Note 15 (Long-Term Debt) to 2001 Consolidated Financial Statements of Peabody Energy Corporation, at 50, Peabody Energy Corporation 10-K, Dec. 31, 2001, at Disc. Page 178). The financial domination of these subsidiaries is so extensive that Peabody Energy did not release "[s]eparate financial statements and other disclosures concerning the Guarantor Subsidiaries . . . because management believes that that such information isnot material to holders of the Senior Notes or Senior Subordinated Notes." see Attachment F (Note 29 (Supplemental Guarantor/Non-Guarantor Financial Information) to 2001 Consolidated Financial Statements of Peabody Energy Corporation, at 64, Peabody Energy Corporation 10-K, Dec. 31, 2001, at Disc. Page 199).

In addition, the employees at the Black Mesa and Kayenta Mines appear to receive benefits under either a defined benefit pension plan covering a significant portion of all salaries U.S. employees under the Peabody Energy umbrella or one covering eligible employees represented by the United Mine Workers of America under the Western Surface Agreement of 2000. See Attachment F (Note 17 (Pension and Savings Plans) to 2001 Consolidated Financial Statements of Peabody Energy Corporation, at 52, Peabody Energy Corporation 10-K, Dec. 31, 2001, at Disc. Page 181-82; see also Attachment F (Peabody Energy Corporation 10-K, Dec. 31, 2001, at 6-7, Disc. Page 8) (identifying hourly workers at the Black Mesa and Kayenta Mines as begin employed under a United Mine Workers contract). Peabody Energy also seems to include workers' compensation obligations and post-retirement health care and life insurance benefits for all eligible employees under the Peabody Energy umbrella, including those at the Black Mesa

and Kayenta Mines, on its consolidated financial statements as its own obligations. See Attachment F (Note 17 (Pension and Savings Plans) to 2001 Consolidated Financial Statements of Peabody Energy Corporation, at 51, 54, Peabody Energy Corporation 10-K, Dec. 31, 2001, at Disc. Page 180, 184).

3. Peabody Energy is the True Applicant

Peabody Energy's relationship with Peabody Western Coal Company ("PWCC") establishes Peabody Energy as the "true locus of control" behind this Permit Application and the conduct of mining and reclamation operations at the Black Mesa and Kayenta Mines. Moreover, Peabody Energy consistently has held itself out as the owner, manager and operator of the Black Mesa and Kayenta Mines. As a result, Peabody Energy should be held accountable as the "true applicant" for the permit, not Peabody Energy's mere agent PWCC. To do otherwise would violate SMCRA's intent and betray OSM's trust responsibilities with respect to the natural resources of the Hopi Tribe and Navajo Nation.

As a result of Peabody Energy being the "true applicant," OSM should review the Permit Application to ensure that it contains all the information required of the applicant for the permit with respect to Peabody Energy. As identified above, this information includes but is not limited to applicant, ownership and control information required under 30 C.F.R. § 778.11; permit history required under 30 C.F.R. § 778.12; and violation information required under 30 C.F.R. § 778.14. As part of this review, OSM should ensure that this information is provided for all the surface coal mining operations that Peabody Energy controls directly and through its subsidiaries, as is required under Part 778 of Title 30. To supplement the list of 38 subsidiaries of P & L Coal Holdings Corporation provided to OSM in the Permit Application, see Attachment A (Permit Application, Ch. 3, Att. 1, Ex. B, at 1), we have attached a fuller list of 118 subsidiaries of P & L Coal Holdings Corporation in its re-christened form of Peabody Energy that were disclosed to investors and the Securities and Exchange Commission. See Attachment F (Exhibit 21 to 2001 Consolidated Financial Statements of Peabody Energy Corporation, Peabody Energy Corporation 10-K, Dec. 31, 2001 (Disclosure Page No. 209-210).

IV. THE RECLAMATION PERFORMANCE BOND IS SUBSTANTIALLY AND MATERIALLY DEFICIENT

The reclamation performance bond submitted by Peabody in connection with its mine permit application is substantially and materially deficient. Most significantly, Peabody's bond is not supported by a meaningful hydrologic reclamation plan. Consequently, the bond program provides no funding at all to reclaim or replace the N-aquifer water source, and no funding to reclaim or replace damaged surface waters.[9] In addition, although Chapter Three of Peabody's permit application contains some evidence of bonding and insurance, questions remain whether the bonds and insurance meet regulatory requirements for form, whether they

[9] We note that in contending that the hydrologic reclamation bond is inadequate, we do not suggest that bonding in itself will solve the problems with Peabody's drawdown of the N-aquifer for the slurry line, the problems with Peabody's surface water impoundments, or any other problems with mine operations discussed in other sections of these comments.

contain improper limitations on liability, and whether the bonds and insurance are up to date and in full effect.

These problems with Peabody's bond plan are compounded by shortcomings attributable to OSM. OSM bears the regulatory responsibility for setting the bond amount through independent calculations for the entire mine project. Even though Peabody purports to provide bond funding sufficient to perform the required reclamation on both the Kayenta and Black Mesa mines (see permit application Chapter 24, Bonding Summary), there is no evidence that OSM has ever independently reexamined Peabody's bond calculations, either at the time the permits were approved, or at any time since.

Moreover, OSM has allowed Peabody to operate the two mines since 1985 notwithstanding the total lack of bond funding for aquifer and surface water reclamation or replacement. Even assuming that the science supported OSM's decision to proceed in 1985 without a meaningful hydrologic reclamation plan or hydrologic reclamation bond, OSM has failed to reconsider that decision in response to ample evidence of aquifer deterioration, dried up springs, and diminished surface water flows. Moreover, Peabody's current application for a major permit revision calls for a 32% increase in N-aquifer pumping for the slurry line. This 32% increase represents "changed conditions" and constitutes a major permit revision. Accordingly, the regulations require OSM to recalculate the bonds. At this juncture, as OSM considers this application for a major permit revision, OSM must meet its obligations and set a bond amount, through independent calculations, that reflects the true costs of hydrologic reclamation and reclamation for the total mine site.

A. Peabody Has Failed to Meet Its Obligations

The Surface Mining Control and Reclamation Act of 1977 ("SMCRA"), 30 U.S.C. §§ 1201-1328, and the implementing regulations, Title 30 of the Code of Federal Regulations, require each applicant for a mining permit to submit a reclamation plan in sufficient detail to demonstrate compliance with the reclamation standards of the applicable regulatory program. 30 U.S.C. § 1257(d), 30 C.F.R. § 780.18-38. SMCRA and the regulations further require that the reclamation bond be "sufficient to assure the completion of the reclamation plan if the work had to be performed by the regulatory authority." 30 U.S.C. § 1259(a); 30 C.F.R. § 800.14(b).

The hydrologic reclamation plan shall include "a detailed description of the measures to be taken to … to assure the protection of … the rights of present water users." To the extent the rights of present users cannot be assured, the hydrologic reclamation plan is to include a description of "alternative sources of water." 30 U.S.C. § 1258(a)(13). See also 30 C.F.R. §§ 780.21(h), 816.41(a),(h) ("The application shall include a plan … [referencing § 816.41(a)] … indicating … steps to be taken … to replace the water supply of an owner of an interest in real property … where the water supply has been adversely impacted … [by] the surface mining activities"). The bond in support of the hydrologic reclamation plan "shall be sufficient to assure completion of the reclamation plan." 30 U.S.C. § 1259(a); see also OSM's Handbook on Calculation of Reclamation Bond Amounts, p. 5 ("[T]he performance bond …

must be adequate to ensure completion of the hydrologic reclamation plan approved in the permit").

Furthermore, "[t]he operator of a surface coal mine shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source where such supply has been affected by contamination, diminution, or interruption proximately resulting from such surface coal mine operation." 30 U.S.C. § 1307(b); 30 C.F.R. § 816.41(h).

Here, Peabody has not established a program that would allow it to meet these requirements. First, Peabody has failed to submit a hydrologic reclamation plan that assures protection or replacement of the water resources relied on by the Hopi and Navajo. Although Chapter 19 of Peabody's permit application is entitled "Hydrologic Reclamation Plan," this "plan" does nothing to assure protection of water resources. Peabody's plan consists of two parts. First, Peabody lists measures it is taking to avoid damage to the hydrologic balance. Second, Peabody offers a "monitoring plan" to "assess impacts" of mining. The regulations do require such a monitoring plan for both surface and ground waters. See, e.g., 30 C.F.R. § 780.21(i),(j) ("The application shall contain a groundwater monitoring plan ..."). However, these monitoring regulations do not replace or eliminate the requirement of a reclamation plan as well. See 30 C.F.R. §§ 780.21(h) titled "Hydrologic reclamation plan," and 816.41(h). "Monitoring" of water resources and "assessing impacts," while important, do not assure the protection of water rights or replacement of water sources.

Next, Peabody has provided no bond funding at all to support a hydrologic reclamation plan even if one existed. This is a violation of the statute and regulations, because Peabody is required to provide a bond that is adequate to support a meaningful plan. 30 U.S.C. § 1259(a); 30 C.F.R. § 800.14(b) ("The amount of the bond shall be sufficient to assure the completion of the reclamation plan"). Peabody cannot avoid the requirement of posting a meaningful hydrologic reclamation bond by simply failing to create a meaningful plan.

To justify its lack of a reclamation plan or bond, Peabody apparently relies on its hydrologic "model," purporting to demonstrate that the slurry pumping has a "negligible" effect on the aquifer. See, for example, the letter of August 10, 2001, sent from Randy Lehn, Manager of Reclamation and Engineering at the Black Mesa Mine, to OSM in Denver, attention Jerry Gavette. In this letter Randy Lehn asserts that there is "no rational reason" for withholding a Permanent Program Permit from the Black Mesa Mine. Lehn asserts that Peabody's 3-D model of the aquifer provides "incontrovertible technical information to support the conclusion that the hydrologic consequences of Peabody's past, present and projected usage of the Navajo Aquifer are negligible." Given this claim of negligible effect on the aquifer, combined with the absence of any bond funding for a hydrologic reclamation plan, one can only conclude that Peabody takes the position that it should not be required to provide a hydrologic reclamation plan or bond to cover any such "negligible" effects on the aquifer.

Peabody might be justified in failing to provide a reclamation plan and bond if it could actually demonstrate that the effects caused by pumping for the slurry line were truly

"negligible." Peabody cannot make such a showing, however, because the "model" it relies on to make that point is fundamentally flawed.

As discussed at length in the section of these Comments submitted by the Natural Resources Defense Council ("NRDC"), Peabody's model is flawed for at least the following reasons: 1) the model is purely theoretical, and thus fails to consider the substantial empirical data that challenge its assumptions; 2) the model begins without meaningful baseline data, thereby rendering meaningless any wellhead measurements taken through its current monitoring programs; and 3) the model assumes, without scientific support, an almost never-ending recharge source for the 3.3 million gallons a day Peabody draws from the aquifer. See NRDC Comments, citing to the recently released report of environmental consulting firm Levine-Fricke, which critically analyzed Peabody's model of the aquifer.

Because Peabody's model is flawed, its conclusion asserting negligible effects on the aquifer is also flawed. Consequently, Peabody is not justified in failing to provide a hydrologic reclamation plan and a performance bond sufficient to support that plan.

It is important to note, however, that OSM need not find that Peabody's model is "fundamentally flawed" in order to impose a bonding requirement here. OSM need only entertain "uncertainties" about the validity of the model to find that a performance bond should be required. A recent Department of Interior administrative appeal decision makes the point. National Wildlife Federation, et al., 145 Interior Dec. 348, 1998 WL 1745294 (D.O.I., September 23, 1998). In National Wildlife, an environmental group, suing under a statute similar to SMCRA, challenged the Bureau of Land Management's ("BLM") approval of a surface copper mine in Utah. The Administrative Appeals Court made the point that the BLM, at the time it made the decision to approve the mine, did not have adequate information to conclude that no performance bond was required. This lack of information was largely caused by a lack of baseline groundwater information for the N-aquifer. The ALJ made the following observation:

> We believe the proper course of action at the time the ROD issued in March 1997 would have been for BLM, an agency operating under a mandate to protect the public lands from unnecessary or undue degradation, to require the posting of a sufficient long-term bond to protect against the uncertainties relating to groundwater quality.

National Wildlife, 145 Interior Dec. 348, 360, 1998 WL 1745294, *9.

Similarly here, to support the requirement of a performance bond, OSM need only entertain "uncertainties" relating to groundwater. Such uncertainties exist here. First, as discussed above, there is the empirical data calling the model into question; second, there is a lack of baseline groundwater information; and third, there are the questions raised by Levine-Fricke about the science behind Peabody's model. Indeed, Peabody itself acknowledges uncertainties with respect to the reliability of its model. See the discussion in NRDC's Comments: "Peabody admits … 'the models are not of sufficient resolution to simulate flow at

individual springs . . . '"); "Peabody acknowledges in its [Probably Hydrologic Consequences report] that 'uncertainty in recharge rates remain.' PHC at 45."

Regardless of whether OSM finds that Peabody's model is fundamentally flawed, the materials presented by NRDC and others create uncertainties. Thus, at least until such uncertainties are resolved, OSM must require a bond sufficient to protect the aquifer, or replace it as a water source for the Navajo and Hopi tribes in the event it is destroyed.

Speaking further about the uncertainties relating to the aquifer, OSM itself has recently expressed its own uncertainties about the damage to the aquifer caused by pumping for the slurry line. We quote from a section of a letter sent on February 25, 2002 to John Cochran of Peabody Western Coal Company, in response to Mr. Cochran's question to OSM regarding the reason for OSM's decision to require a new EIS prior to approving the Permanent Program Permit under consideration for the Black Mesa mine. The letter was written by Peter A. Rutledge, Manager, Indian, Federal & State Program Support Team, Western Regional Coordinating Center, Denver, Colorado. Mr. Rutledge wrote:

> [T]he principle reason OSM has decided that a new EIS is required for the significant revision is the continued and increased pumping of the Navajo aquifer to slurry coal and the continued controversy and contention associated with the pumping. There has been considerable new information generated on the issue of pumping of the N-aquifer water for coal slurry purposes since the 1989 EIS that needs to be considered and made available for public scrutiny in the EIS process before even continued pumping for slurry purposes, let alone increased pumping could be approved.

Based on the obvious uncertainty existing on this issue, it is incumbent upon OSM to require long term bonding now.

An additional issue needs to be addressed. That is, Peabody may argue that a bond is not required because it has already paid for the water and has a lease provision allegedly allowing it to use "that amount of water necessary for the mining process." See Peabody Permit Application Chapter 19, p. 4. However, Peabody's private right to use the water, if any, does not trump OSM's responsibility to safeguard the aquifer.

A recent case from the Indiana Supreme Court is instructive. Natural Resources Commission v. Amax Coal Co., 638 N.E.2d 418 (Ind. 1994). In Amax Coal, the Indiana Supreme Court applied a provision of that state's version of SMCRA that is almost identical to 30 U.S.C. § 1307 and 30 C.F.R. § 816.41(h), which require replacement of groundwater resources that are materially damaged by surface mining. In Amax, two coal strip-mining companies applied for the right to pump groundwater from underneath their lands as part of the mining process. The companies claimed rights to the water based on state common law because the water lay beneath their lands. In both cases the state regulatory authority refused permission to pump the groundwater until the coal companies could affirmatively demonstrate that the

pumping would not be detrimental to adjacent landowners. Amax, 638 N.E.2d at 426 ("[T]he coal company submitted the required plan to preserve the hydrologic balance with its permit application. However, the NRC believed that the proposed plan was deficient, and conditioned approval of the permit pending further hydrologic studies").

The Indiana Supreme Court held that the NRC, the state administrative agency with responsibility for issuing permits, had the statutory authority to regulate the groundwater. The Court further held that this did not constitute a "taking" because "[t]he State [could] regulate the use of property without destroying rights in that property." Id. at 429, citing Village of Euclid, Ohio v. Ambler Realty Co., 272 U.S. 365 (1926).

The Amax case is instructive here because Peabody also claims it has rights to use the groundwater. These private rights, however, even assuming they exist, cannot give Peabody the freedom to destroy with impunity a sole source of water relied on for a thousand years for domestic, agricultural, and ceremonial purposes. Moreover, any private rights Peabody may claim cannot supersede the OSM's public duty to preserve this irreplaceable resource.

B. Bond and Insurance Formal Requirements

Finally, although Chapter Three of Peabody's permit application does contain documents purporting to demonstrate compliance with bonding and insurance requirements, these documents do not answer all questions. With respect to the liability insurance, we seek to confirm that the insurance is in effect, for the proper amounts, and that there are no unauthorized limitations on liability. 30 C.F.R. 800.60 ("Such policy shall provide protection ... in an amount adequate to compensate any person injured or property damaged as a result of the surface coal mining ..."). With respect to the performance bonds, documents associated with the bonds in Chapter Three show dates no more recent than April 21, 1997. We seek to confirm that these bonds meet all requirements including, but not limited to those set forth in the following regulations:

- 800.11: Bonds must be payable to the regulatory authority, and conditioned on faithful performance of all requirements of the Act; bonds shall follow one of the appropriate schemes, such as "entire permit area," "cumulative," or "incremental."
- 800.12: Bond must be in appropriate form, such as surety, collateral, self, etc.
- 800.13: Bonds must cover the appropriate period of liability.
- 800.16: Bonds must show evidence of proper notice mechanisms in the event of the insolvency of the surety.

C. OSM Has Failed to Meet Its Obligations

Under the SMCRA regulations it is the regulatory authority, not the permit applicant, which has the responsibility for setting the amount of the reclamation bond. As the regulatory authority on Indian Lands, 30 C.F.R. § 750.6(a), OSM has the responsibility for determining the amount of the reclamation bond at Kayenta/Black Mesa mine. 30 C.F.R. § 800.14(a)(1). In determining the bond amount, OSM may consider, but may not rely on, the cost

estimates submitted by Peabody. 30 C.F.R. § 800.14(a)(4); Handbook for Calculation of Reclamation Bond Amounts. OSM must set the bond at an amount sufficient to assure completion of the reclamation plan if the work were to be performed by OSM in the event of Peabody's forfeiture. 30 C.F.R. § 800.14(b). The above requirements are mandatory, and OSM has not met these requirements.

Not only has OSM failed to set the amount of a hydrologic reclamation bond at a reasonable level, OSM has failed to require any bond at all. Contrary to the mandatory requirements of the statute and regulations, OSM has allowed Peabody to operate this surface coalmine for over 15 years with no hydrologic reclamation bond of any kind. This is an unacceptable abdication of OSM's mandatory responsibilities. See United States v. Monsanto, 491 U.S. 600, 607 (1989) (by using "shall" in civil forfeiture statute, "Congress could not have chosen stronger words to express its intent that forfeiture be mandatory in cases where the statute applied."); Association of American Railroads v. Costle, 562 F.2d 1310, 1312 (D.C. Cir. 1977)("The word 'shall" is the language of command in a statute"); West Virginia Highlands Conservancy v. Norton, 2002 WL 424577, *4 (S.D.W.Va., 2002)("When a statute or regulation uses the word 'shall,' a mandatory duty is imposed upon the subject of the command").

One of the key policies behind SMCRA's reclamation bond is that it is the mine operator, not the taxpayer or landowner, who shall be required to pay for reclamation. West Virginia Min. and Reclaimation Ass'n v. Babbitt, 970 F.Supp. 506, 512 (S.D.W.Va.1997) ("[A] bedrock principle of SMCRA is the obligation of the mine operator to bear the costs associated with surface mining, from the permitting of a mining operation through to the conclusion of the reclamation process"). OSM's failure to set any amount for an adequate hydrologic reclamation bond defeats this bedrock SMCRA policy. After Peabody has packed up and banked its profits, the Hopi and Navajo will be the ones who are left to pay the price for the reclamation or loss of the Black Mesa hydrologic system.

Not only has OSM failed in the past to establish an adequate bond, Peabody is asking OSM to make the same mistake again. In its current permit application, Peabody asks OSM to "limit its review to only the materials in the application that are changing as a result of this and the August 10, 2001 submittals." Peabody January 17, 2002 letter, p.1. Further, Peabody argues that OSM "need not review the remaining materials in the application because those materials have already been subject to full regulatory analysis during and after the five year period when the original application was reviewed." See further discussion in Comments submitted by the Lawyer's Committee for Civil Rights Under Law.

If OSM grants Peabody's request that it limit its review to recently submitted materials, OSM will repeat the mistakes of the past with respect to the hydrologic reclamation bond. The regulations state that under circumstances of either changed conditions, increased cost of reclamation, or major permit revision, OSM is required to review and adjust the reclamation bond. 30 C.F.R. §§ 800.15(a) and (d). OSM is not free to ignore "remaining materials in the application because those materials have already been subject to full regulatory analysis." Here, Peabody seeks a major revision through the addition of the J-23 mine area (OSM acknowledged that this is a "major revision" in its February 25, 2002 letter to John Cochran). In addition, Peabody seeks a 32% increase in aquifer pumping for the slurry line.

This increased pumping constitutes changed conditions and causes increased costs for reclamation. Accordingly, OSM is required under 30 C.F.R. §§ 800.15(a) and (d) to adjust the amount of the bond. OSM must not compound its past failure to establish a hydrologic reclamation bond by repeating the same error in the context of this major permit revision. OSM must review the entire permit application and establish an adequate hydrologic reclamation bond.

D. Conclusion

Peabody has failed to provide any meaningful hydrologic reclamation plan or bond. Furthermore, Peabody has failed to provide evidence that the reclamation bonds it has provided, not related to hydrology, are up to date and in proper form. Correspondingly, OSM has failed to set the bond amounts through independent calculations, and it has failed to adjust the bond for changed circumstances. Most significantly, OSM has failed to require any hydrologic reclamation bond at all throughout the 15-year history of the Black Mesa/Kayenta mines.

The surface and ground waters of Black Mesa are its most valued and valuable resource. They constitute this arid region's only tenuous bridge to life. If at the end of the day these waters do not to survive Peabody's strip mining, then SMCRA's fundamental purposes will entirely fail. OSM, an entity whose sole reason for existence is to implement and enforce SMCRA, must meet its obligations and require bonding to protect these waters. With no hydrologic reclamation bond, the Hopi and Navajo will be the ones to pay, long after Peabody is gone. Peabody's surface water impoundments and pumping for the slurry line heavily impact the hydrologic balance on Black Mesa. To the extent OSM allows these activities to carry on at all, OSM must require a hydrologic reclamation bond in an amount sufficient to reclaim or replace these vital waters. The pending permit application must not be approved without such a bond.

V. THE PERMIT APPLICATION SHOULD BE DENIED UNTIL SURFACE WATER IMPOUNDMENT VIOLATIONS AT THE BLACK MESA MINE COMPLEX ARE ABATED

A. Background

Peabody Western Coal Company maintains an extensive system of surface water impoundments at the Black Mesa/Kayenta mine complex. These surface water impoundments are in violation of the regulations promulgated to control their use, and thus should not be allowed to stand. Moreover, the permit application currently pending before OSM should be denied until these violations of the impoundment regulations are abated.

Three agencies are charged with partially overlapping responsibilities with respect to the oversight of surface water impoundments. These include the Office of Surface Mining, ("OSM"), the Army Corps of Engineers ("Corps"), and the Environmental Protection Agency ("EPA"). Peabody currently maintains the impoundments under the authority of all three agencies. Pursuant to the Clean Water Act and its implementing regulations, the EPA and the Corps have granted their approvals of the impoundments at Black Mesa. The EPA granted approval by providing the required certification that the impoundments have met water quality

standards. Clean Water Act § 401; 33 U.S.C. § 1341. The Corps granted approval by authorizing the impoundments pursuant to one of the Nationwide Permits that are designed to streamline approval for certain categories of activities deemed to have "minimal impacts" on the environment. Clean Water Act § 404; 33 U.S.C. § 1344; 33 C.F.R. § 330.1(b). OSM granted its approval as a secondary consequence of its overall approval of the mine permit. That is because Nationwide Permit 21, the permit applicable to surface mining activities, is only effective if the surface mine in question operates under a permit approved by the applicable regulatory authority, in this case OSM.

Nationwide Permit 21, however, was prematurely granted. That is because OSM improperly approved the overall mine permit for the Kayenta mine, and has failed to enforce the regulations with respect to the pending application at Black Mesa. To the extent OSM granted approval of the mine permit in the past, it did so in violation of its own impoundment regulations. OSM should now deny the application currently before it; at least until the impoundment violations are abated. Thus, although Peabody currently maintains the impoundments under the authority of Nationwide Permit 21, the authorization for these impoundments should be withdrawn.

B. OSM Should Deny the Permit Application Because Peabody's Impoundments Violate the Regulations

Under 30 C.F.R. § 773.15(a), no permit application or application for a significant revision should be approved until the regulatory authority finds in writing that the applicant has complied with all requirements of the Act and the regulatory program. One such requirement of the regulatory program is set forth at 30 C.F.R. § 816.49(b)(5), which provides:

> (b) A permanent impoundment of water may be created, if authorized by the regulatory authority in the approved permit based on the following demonstration:
>
> (5) The impoundment will not result in the diminution of the quality and quantity of water utilized by adjacent or surrounding landowners for agricultural, industrial, recreational, or domestic uses.

Peabody has failed to demonstrate that the permanent impoundments at Black Mesa will not result in diminution of water quality and quantity to adjacent downstream users. Although it is true that Chapter 18 of Peabody's current permit application, the Probable Hydrologic Consequences report, does assert that the impoundments have a negligible effect, this showing is not adequate. Numerous questions remain unanswered. Many of these questions were raised by then-Hopi Tribal Chairman Vernon Masayesva in a 1993 letter to the Army Corps of Engineers. See Attachment H (Letter from Vernon Masayesva to John A. Gill, December 14, 1993). In this letter Mr. Masayesva protested the approval of a Nationwide Permit authorizing the impoundments. A number of the points from this letter are summarized below.

Well over 100 impoundments exist within the boundaries of the Black Mesa/Kayenta mine complex. These impoundments control the runoff from roughly a 62,000-acre area. They range in size up to 755 acre-feet, and have a cumulative capacity of almost 5,500 acre-feet. The loss of water from evaporation alone is several hundred acre-feet or more per year. The construction, maintenance, and operation of these impoundments cannot be characterized as having a minimal impact on the adjacent down stream water users.

Little case law exists defining exactly what constitutes a "minimal" environmental impact. One recent case, however, gives a point of reference. In Bragg v. Robertson, 54 F.Supp.2d 635 (S.D.W.Va.1999), the plaintiffs alleged that it was unlawful for the Army Corps of Engineers to issue Nationwide Permits for the surface mining of valley fills in West Virginia. The parties tentatively settled the matter, reaching an agreement that required the Corps to develop agency policies to minimize the adverse environmental impacts of mountaintop mining operations. The agreement also contained an interim requirement to be in effect while these mining policies were being developed. That interim requirement was as follows: until final environmental policies were established by the Corps as part of the settlement, all mining companies whose operations were expected to have more than minimal effects on the environment would be required to seek the much more heavily scrutinized individual permits, rather than the easy to obtain Nationwide Permits. Most significantly, the agreement stipulated that "if a mining permit will drain a watershed of 250 acres or more," it will be "considered" to have "more than minimal adverse effects" per se. Id. at 639.

The Bragg case, of course, does not establish a "per se" rule that the drainage of a watershed of 250 acres or more should necessarily be considered to have "more than a minimal adverse impact on the environment." However, when the 250-acre cut-off point contemplated by the parties in Bragg is compared with the 62,000-acre surface water runoff area controlled by Peabody's impoundments, the determination that Peabody's impoundments will have a "minimal impact on the environment" seems unsupportable to the point of being irrational. This viewpoint can only be reinforced when one considers the vast quantities of water being impounded by Peabody, the fragility of the desert ecosystems, and the degree to which the Hopi farmers depend on these runoffs to support their twelve-hundred-year-old farming culture.

Furthermore, the surface water, if left to its natural flow, eventually seeps underground and contributes to the recharge of the N-aquifer. The aquifer water in turn percolates to the surface in a variety of springs and washes. Peabody's impoundments interrupt that cycle. They harm the hydrologic balance, cause damage to the fragile desert ecosystems, and negatively impact the farming practices and religious ceremonies of the Hopi Tribe. If nothing else, Peabody's impoundments have already cost this arid region thousands of acre-feet of water through evaporation alone.

When reviewing agency decisions for error, courts apply the "arbitrary and capricious" standard. The U.S. Supreme Court has established that an agency's ruling would be arbitrary and capricious if the agency "entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." Motor Vehicle Mfrs. Ass'n v. State Farm Mut., 463 U.S. 29, 43 (1983). Here, for the

reasons discussed above, the Army Corps of Engineers' decision to allow Peabody to maintain these impoundments under a Nationwide Permit is "so implausible that it cannot be ascribed to a difference in view." Furthermore, it is an example of a decision that "runs counter to the evidence before the agency." Accordingly, this decision by the Corps is an example of "arbitrary and capricious" agency decision-making.

In connection with the pending permit application OSM is also being asked by Peabody to make a decision that similarly "runs counter to the evidence before the agency." Under 30 C.F.R. § 816.49(b)(5), permanent impoundments cannot stand if they will "result in the diminution of the quality and quantity of water utilized by adjacent or surrounding landowners." Here, the footprint of Peabody's impoundment program is so massive, and the region of the country in which the program takes place is so arid, that it defies reason to argue that these impoundments will not impact water quality and quantity for downstream water users. Accordingly, OSM must follow its own regulations and deny Peabody's mining permit unless and until Peabody can affirmatively demonstrate that these impoundments will not have a negative impact on the desert ecosystems and the downstream Hopi farmers.

A final point should be mentioned. Peabody may argue that OSM should not be allowed to withdraw approval for the impoundments now that Peabody has relied on a 15-year track record of approval. This argument, however, is contrary to law:

> [M]ining companies' expectations regarding the permitting process based on the [regulatory agency's] previous behavior are not rights established by contract, statute or regulation. Instead, they are simply expectations and assumptions that cannot bind and prevent the [regulatory agency] from exercising its administrative discretion and duties. It is rare that the United States is estopped from taking positions different from those mistakenly taken by its agents on prior occasions. See, e.g., United States v. Vanhorn, 20 F.3d 104, 112 n. 19 (4th Cir.1994) ("The Government is simply not bound by the negligent, unauthorized acts of its agents. Federal law is clear that estoppel is rarely, if ever, a valid defense against the Government absent proof of some affirmative misconduct by a Government agent").

Bragg v. Robertson, 54 F.Supp.2d at 665.

C. Conclusion

The surface water impoundments at Black Mesa are in violation of OSM's own regulations. Peabody has failed to demonstrate that the impoundments will not result in diminution of water quality and quantity for adjacent landowners. Thus, the impoundments should not be allowed to stand. Moreover, notwithstanding previous regulatory approval, the permit application currently pending before OSM should be denied until these violations of the impoundment regulations are abated.

VI. PROCEDURAL AND ENVIRONMENTAL JUSTICE ISSUES

A. Permit Revisions Should Be Processed as New Permit

The Part 750 regulations outline requirements for Surface Coal Mining and Reclamation Operations on Indian Lands. 30 C.F.R. Part 750. According to these regulations, applications for significant revisions shall be processed as new applications in accordance with Parts 773 and 775. 30 C.F.R. § 750.12(c)(3)(C). Under the regulations, in determining what is a significant revision, OSM shall consider, among other things, the environmental effects, the public interest in the operation, or likely interest in the proposed revision, and possible adverse impacts from the proposed revision on cultural resources. 30 C.F.R. § 750.12(c)(3)(B).

The environmental effects of the permit revision request are significant and are outlined in our comments and objections submitted by the Natural Resources Defense Council ("NRDC"). There are also significant adverse impacts on cultural resources discussed in our comments and objections submitted by the Sierra Club. In fact, the full environmental and cultural impacts of the ongoing and proposed mining activities will not be know until after the National Environmental Policy Act ("NEPA") and Cumulative Hydrologic Impact Assessment ("CHIA") processes are complete. Moreover, according to NRDC as of April 25th, OSM has received more than 5,400 negative public comments on Peabody's permit application. We agree with OSM's conclusion in its letter of March 6, 2002 to Vernon Masayesva that Peabody's requested permit revision is significant under the regulations and should be treated as a new permit. Letter to Vernon Masayesva, Executive Director, Black Mesa Trust, from Brent Walquist, Regional Director, Office of Surface Mining Reclamation and Enforcement, dated March 6, 2002, at 1 ("OSM March 6, 2002 letter").

B. OSM Should Review the Entire Life-of-the-Mine Permit Application, Not Just the J-23 Revision Request

In its January 2002 permit application, Peabody requests that OSM "limit its review to only the materials in the application that are changing as a result of this and the August 10, 2001 submittals." Peabody January 17, 2002 letter, at 1. Further, Peabody argues that "OSMRE need not review the remaining materials in the application because those materials have already been subject to full regulatory analysis during and after the five year period when the original application was reviewed." Id., at1. However, because the revision in Peabody's application is significant as defined in 30 C.F.R. § 750.12(c)(3)(ii)(C), OSM must process it as a new permit.

The regulations make a distinction between how "significant revisions" and "other revisions" should be treated. While significant revisions will be processed as if they are new applications, "[o]ther revisions shall be reviewed to determine if the findings which were made in issuing the original permit are still valid." 30 C.F.R. § 750.12(c)(3)(ii)(C). Peabody has asked OSM to look only at the increment proposed in the permit revision request (*i.e.*, "limit its review to only the materials in the application that are changing as a result of this and the August 10, 2001 submittals") and not review existing findings and information (*i.e.*, "not review the remaining materials in the application"). This requested course of action does not meet the lesser

standard of review allowed for "other revisions," much less a "significant revision" as is proposed by Peabody in its application. Even that lesser level of review for "other revisions" would require OSM to conduct a review of the information and purported findings of the entire initial permit application.

Under the regulations, processing a request as a new permit establishes an even higher standard of OSM review for all aspects of the permit than is required for other non-significant revisions. To be processed as a new permit means not only that proper public participation and environmental assessments (*e.g.*, Environmental Impact Statement ("EIS"), CHIA) be conducted, but that those processes cover more than just reviewing or taking comment on changes to "findings which were made in issuing the original permit." Id. That higher standard of review should entail a review of the life-of-the-mine permit application including, but not limited to the current application revision request.

In addition to the requirements of the regulations, there are several other reasons why OSM should not limit its review to the January 2002 permit revision request. First, the public has had no opportunity to comment on the proposed activities in more than five years. Meanwhile, Peabody has been updating the Black Mesa Mine permanent program permit application pending approval. Permit Application, Chapter 1, at 2 (Revised 01/15/02). Also, as OSM stated in its letter to Peabody dated February 25, 2002, "[T]here has been considerable new information generated on the issue of pumping of the N-aquifer water for coal slurry purposes since the 1989 EIS that needs to be considered and made available for public scrutiny in the EIS process before even continued pumping for slurry purposes, let alone increased pumping could be approved." Letter to John Cochran, Peabody Western Coal Company from Peter A. Rutledge, Chief Program Support Division, Office of Surface Mining, dated February 25, 2002. ("OSM February 25, 2002 letter"). As is described in our comments below and in our comments submitted under separate cover by the Sierra Club and NRDC there is significant new information on issues such as cultural resources, endangered species, bonding, ownership, and surface water impoundments, as well as the impacts of groundwater pumping. This new information, along with existing information in the life-of-the-mine application should be reviewed and analyzed by OSM, because it will have a significant impact on OSM's final findings.

Another reason OSM should not limit its review to the January 17, 2002 revision request is that no life-of-the-mine permit was ever issued. Peabody acknowledges that "OSM has not issued the permanent program permit for the portion of the proposed permit area covering the Black Mesa Mine pending resolution of the water use issues associated with operation of the Black Mesa Mine." Permit Application, Chapter 1, at 2 (Revised 01/15/02). Therefore, what Peabody is currently proposing is not even a permit modification, but in fact a request to modify its permit application. OSM should review the whole life-of-the-mine permit application in light of new information that has become available since the application was first submitted, as well as in light of the age of the existing information submitted in support of the original application.

Clearly, the permit revision request is significant and should be processed as if it is a new application under the regulations. This means more than just OSM reviewing its old

findings in light of the proposed revision to the application. OSM should review new information and allow public comment on information in the existing permit application, the revised permit application, and new information that has come to light since the initial original application was submitted.

C. Public Notice Fails to Meet Regulatory Requirements

The public notices, one of which was published in the February 13, 2002 edition of the Navajo-Hopi Observer, do not clearly show or provide a description or map "sufficient to enable local residents to readily identify the proposed permit area." 30 C.F.R § 773.6(a)(ii). As we pointed out in our letter of February 17, 2002, the description provided in the notice not only fails to specifically identify the location of the proposed amendment to the permit application (the J-23 area), but also fails to set forth a description of the overall mining area that meets the regulatory requirements. Letter to Brent Walquist, Regional Director, Office of Surface Mining, from Vernon Masayesva , Executive Director, Black Mesa Trust, dated February 17, 2002 ("Black Mesa February 17, 2002 letter"), at 2

The notices contain obscure and highly technical references to the "Gila and Salt River Basin Meridian," "protracted boundaries," and what we believe may be mapping coordinates. They also provide locational information such as "Townships 35 through 36 North, Ranges 18 through 19 East." Those landmarks are meaningless to local residents because the Hopi and the Navajo do not identify their villages in terms of Township numbers. Additionally, it is unclear what Ranges 18 and 19 refer to, (perhaps they refer to mountains, but perhaps not) therefore as aids to local residents identifying a location they are not helpful. Coordinates such as "T35N, R18E Sections 3-5, 8-11, 13-17, and 20-36" are equally meaningless. Providing references to U.S. Geological Survey 7.5 minute quadrangle maps is likewise not helpful because few if any local residents own copies of, have access to, or have intimate familiarity with those maps.

In these ways, the notice requires local citizens to possess particular maps and documents and be expert cartographers in order to translate the narrative description into a real-world location. Even if a local resident could decipher the description, this translation would not yield an understanding of the "precise boundaries" of the proposed mining area. While referring to sections of technical maps, the mining area is referred to only as located "near" certain boundaries and "within" the "protracted boundaries" of certain numbered townships. This description lacks sufficient specificity to meet the applicable regulatory standard.

In addition, as we stated in our Black Mesa February 17, 2002 letter, the notice does not adequately reveal the nature of the permitting action contemplated. The notice makes it appear as if OSM is merely considering certain *updates* to aspects of Peabody's application, whereas what Peabody has also requested in its letter of January 17, 2002, is a re-activation and consideration of its application for a life-of-the-mine permit for the entire area covered by the Black Mesa mine. As a consequence, the notice, as drafted, fundamentally fails to serve its regulatory purpose: which is to clearly inform people about the scope and nature of the proposed action.

D. Public Participation Process Fails to Follow Presidential Directive and DOI Guidance on Translation

On August 11, 2000, to improve access to Federally conducted programs and activities for persons who, as a result of national origin, are limited in their English proficiency ("LEP"), the President issued Executive Order 13166 "Improving Access to Services for Persons With Limited English Proficiency." Under Executive Order 13166. 65 Fed. Reg. 50121 (Aug. 16, 2000). Under the LEP Executive Order, Federal departments and agencies were to take steps to ensure that persons with limited English proficiency can meaningfully access the agency's (*i.e.*, Federally conducted) programs and activities. This included providing translation services so LEP persons could effectively be informed of or to participate in the programs.

In February 2001, the Department of the Interior ("DOI") issued its own LEP guidance and in it specifically identified water resource programs, environmental protection programs, and most importantly, surface mining and reclamation programs as examples of DOI Federally conducted programs. U.S. Department of the Interior, Departmental Office for Equal Opportunity, "Improving Access to Programs and Activities for Persons with Limited English Proficiency," February 2001 ("DOI LEP Guidance"), at 4. DOI's LEP Guidance further states that "the lack of language assistance capability among agency employees has especially adverse consequences among rural Alaskan Native communities and especially older Native Americans, where in certain instances, they only speak and understand their own native languages." Id. at 3. This is true in the current situation. Many of the Hopi and Navajo who are and will be impacted by the existing and proposed mining operations and N-Aquifer depletion have limited English proficiency.

The DOI LEP Guidance sets forth "the actions that will be taken by all bureaus and offices to ensure that their programs and activities are nondiscriminatory towards and accessible to people who cannot write, read, or understand the English language." Id. at 6. As a Departmental Goal, all bureaus and offices "shall provide timely, competent, and quality language assistance services to LEP persons." Id. at 6. In OSM's case vital documents that should be translated include the public comment notices and other critical permitting documents, including those developed as a part of the National Environmental Policy Act ("NEPA") and CHIA processes, as well as the permit application approval process. Without providing these vital documents in native languages, those most impacted by OSM's actions are not able to meaningfully access the Black Mesa Mine permitting process.

Under the DOI LEP Guidance, each "bureau and office shall proactively inform LEP customers and local grassroots organizations who represent LEP persons of the availability of language assistance services through both oral and written communications, in his or her primary language. All language assistance services provided by bureaus and offices to LEP persons must be free of charge." Id. at 9. Rather than provide the translation requested or even a commitment to provide future translation, OSM in its March 6, 2002 letter to Vernon Masayesva, provides two explanations as to why notices were not published in Hopi. OSM March 6, 2002 letter, at 2. First, OSM states that notices were published in three major newspapers serving the Hopi Tribe and the Navajo Nation and that all three newspapers publish in English. While this statement is true – all three papers do publish in English -- it does not

explain why the notices were not translated into Hopi. The Hopi Tutuveni, one of the papers that published the notice, publishes items in Hopi.

The more appalling and blatantly inaccurate reason given by OSM for failing to translate the hearing notice and other vital documents into Hopi is that "Hopi is not yet a written language." *Id.* at 2. Early missionaries were writing Hopi in the 1850s. Examples of recent literature published in Hopi, include Herschel Hopitutuwutsi Talashoema's " Hopi Tales: A Bilingual Collection of Hopi Indian Stories," (University of Arizona Press, 1983), and Michael Lomatuway'ma's "Children of Cottonwood: Piety and Ceremonialism in Hopi Indian Puppetry," (University of Nebraska Press, 1987), and "The Bedbugs' Night Dance and Other Hopi Sexual Tales," (University of Nebraska Press, 1995). There are several Hopi dictionaries in publication. One recent dictionary, the "Hopi Dictionary - *Hopiìwa Lavaytutveni*: A Hopi-English Dictionary of the Third Mesa Dialect," was compiled by the Hopi Dictionary Project and published in 1997 by the University of Arizona Press. It contains approximately 30,000 entries.

The Department of the Interior's mining offices have been working with the Hopi Tribe on Black Mesa mining issues for more than 40 years. It is inexplicable that after all this time, the Department and OSM still do not know that, despite the U.S. Government's attempts to extirpate the Hopi language and culture through implementation of its assimilation policies, Hopi is a written language.

E. Public Participation Process Fails to Follow Presidential Directive, DOI Guidance, and OSM Guidance on Environmental Justice

On February 11, 1994, the President issued Executive Order 12898 "Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations" ("EJ Executive Order"), 59 Fed. Reg. 7629 (Feb.16, 1994). As the Presidential Memorandum that accompanied the EJ Executive Order stated, the Executive Order was "designed to focus Federal attention on the environmental and human health conditions in minority and low-income communities with the goal of achieving environmental justice." Memorandum for the Heads of All Departments And Agencies, Subject: Executive Order on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994, at 1 ("Presidential Memo on EJ"). The EJ Executive Order was also intended to "provide minority communities and low-income communities access to public information on, and an opportunity for public. Id. at 1.

Section 5-5 of the EJ Executive Order states that "each Federal agency may, whenever practicable and appropriate, translate crucial public documents, notices, and hearings relating to human health or the environment for limited English speaking populations" EJ Executive Order, § 5-5(b). Moreover it states that "each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public." Id., § 5-5(c).

As stated earlier, the written notice published in the newspapers was not understandable nor was it translated into Hopi or Navajo, and therefore, was not readily accessible to many Hopi and Navajo with limited English proficiency.

1. Access to Information Does Not Comply with DOI and OSM EJ Guidance

In 1994, the Secretary of Interior issued an environmental justice policy statement directing DOI action. DOI issued its own guidance and strategic plan to implement the EJ Executive Order. The first Goal in DOI's Environmental Justice Strategic Plan is that "the Department will involve minority and low-income communities as we make environmental decision and assure public access to our environmental information." U.S. Department of the Interior, "Strategic Plan Environmental Justice," April 11, 1995 ("DOI EJ Strategic Plan"), at 2. The DOI EJ Strategic Plan also states in the section that discusses what OSM is doing to implement DOI EJ Goal 1 on public participation that "the meaningful public participation of low-income, minority community members and members of the Native American community has been and continues to be high priority in the Agency's dealing with the States, Tribes, citizens and the industry." Id., at 4. This OSM section on public participation goes on to say:

> Further, we ensure that members of the affected communities have access to the necessary information that affords them the opportunity to provide meaningful comments. Providing this information also gives the members of the affected community the background they need to determine what effects, if any, a proposed action will have on their community.

Id., at 4.

The Office of Surface Mining Reclamation and Enforcement's Western Regional Coordinating Center ("WRCC") issued two guidance documents on environmental justice. The first is the "Western Regional Coordinating Center Environmental Justice Guidelines." Western Regional Coordinating Center Environmental Justice Guidelines ("WRCC EJ Guidelines"). The purpose of this document was to provide "general guidance for complying with the Environmental Justice (EJ) Executive Order as it relates to the Surface Mining Control and Reclamation Act (SMCRA) in the OSM Western Region." Id., at 1. They state that "environmental justice means ensuring, to the extent provided by Federal law, that eligible populations have equal access to information, a fair opportunity to public participation, and equal protection from adverse human health or physical effects." Id., at 1-2. The WRCC EJ Guidelines further elaborate on the public participation aspect by stating that Federal agencies are among other things responsible for providing "a fair opportunity to comment on Federal actions." Id., at 1.

The entire life-of-the-mine permit application fills several book shelves. Even the incomplete permit revision application materials are over a thousand pages long. While access to at least some application-related documents is available at the Forest Lake Chapter House and the Hopi Tribe's Office of Mining and Mineral Resources, the simple provision of documents at these locations is not sufficient to provide meaningful access, as contemplated by the EJ Executive Order and DOI and OSM environmental justice guidance documents. However, it takes many interested persons two or three hours to drive to these locations and reading the voluminous document at one sitting impossible.

Interested parties were told by the Hopi Mining Office in order to obtain a copy of the permit application or revision application, that they must purchase and bring their own copier paper and pay for the use of copy facilities. Given the quantity of documents and their combined length, the cost to obtain one set of complete documents would surely reach thousands of dollars, making acquisition unrealistic under the current approach for the low-income community affected by the proposed mining decision. Finally, as noted above, simple descriptions, translations, and other necessary aids have not been provided even though the materials are highly technical in nature and only published in English.

Also, interested parties were not provided access to updated information that would give "the members of the affected community the background they need to determine what effects, if any, a proposed action will have on their community." OSM acknowledges a need to update the EIS and the CHIA, and in our comments submitted by the Sierra Club, it has been made clear that a full analysis of impacts on cultural resources is also absent. Nonetheless, by setting a deadline of April 29, 2002 for public comment on the permit application, OSM is forcing the affected community and interested parties to provide comment without access to that critical information they need to assess the devastating environmental and cultural impacts on their community.

2. Notice to Affected Community Does Not Comply with EJ Executive Order or DO EJ Guidance

In September 1998, the Western Regional Coordinating Center issued another environmental justice guidance document geared toward public participation in the Indian Lands Program. Office of Surface Mining Western Regional Coordinating Center, "Public Participation and Involvement, Environmental Justice Activities in the Indian Lands Program," September 1998 ("WRCC Public Participation and EJ in Indian Lands Guidance"). That guidance document explains that Section 5-5(c) of the EJ Executive Order requires that "Each Federal agency shall work to ensure that public documents, notices, and hearing relating to human health or the human environment are concise, understandable, and readily accessible to the public." Id., at 1.

The WRCC Public Participation and EJ in Indian Lands Guidance elaborates on what activities are encompassed in WRCC's overall public participation and involvement program " [i]n order to ensure consistent implementation of Section 5-5(c) of the Order in the Indian lands program." Id., at 3. It further states that for controversial or activities that have a high degree of public interest, OSM will work in close consultation with "recognized groups to provide broad notification of the proposed activity." Id., at 3. OSM has made no attempt to work or consult with the Black Mesa Trust on this matter. In fact, when Black Mesa Trust made requests in its for translations to better inform the public, those requests were not responded to by OSM in its March 6, 2002, reply letter. Further, we are unaware of any attempts to work with any other recognized groups to provide broad notification. Any information that has become more widely available to the public has been because of requests initiated by the Black Mesa Trust, not the activities of OSM.

OSM's attempts at ensuring public participation since January 2002 in the Black Mesa Mine life-of-the-mine permit application and application revision request from Peabody, as described above, have not complied with the goals of the EJ Executive Order, the goals of the Department of the Interior, or either of the two OSM environmental justice guidance documents. The public notice has failed in its most basic mission – to put the public – in particular local residents – on notice of what mining activities are proposed by Peabody and where they would occur. As described above, the published notices failed to provide "a fair opportunity to comment on Federal actions" and were not concise, understandable, and readily accessible to the public. Further, they were not translated into languages other than English.

F. Currently Contemplated Permitting Process Fails to Allow Due Process

As discussed above, the interested public, particularly the non-English speaking members of the Hopi Tribe and Navajo Nation were not provided adequate notice as to the activities proposed by Peabody. The notice published in newspapers was incomprehensible in English and was not translated into Hopi or Navajo. Also, as discussed above, meaningful access to the permit documents was denied because within the time frame proposed by OSM, it is not realistic for interested parties like the Black Mesa Trust, other non-profits, and concerned citizens to read the information at the repositories due to the shear volume of materials and the length many interested persons would have to drive to view the documents. Further, the cost of copying documents is both prohibitive for low-income citizens, if possible, the task of personally copying the documents would be incredibly time consuming.

Moreover, there was not enough time for citizens to prepare detailed and meaningful comments before the April 29, 2002 deadline. In fact, Rick Holbrook of OSM said in a conversation on Tuesday, March 5, 2002 with Andrea Jaussi of the Glen Canyon Institute that if the public had the whole permit application sitting in front of them, they would not have time to read it much less analyze it in time to make meaningful comments. That is an accurate and damning statement.

While the Black Mesa Trust was fortunate to have at its disposal several other non-profits and law firms who were able to devote their time and expertise pro bono to this effort, other interested individuals and organizations were not so fortunate. Even so, there was not enough time for the coalition of commentors we represent to cover all issues in the depth that they deserve due to the importance of OSM's decision.

Even if there were an adequate amount of time given to the public to provide comment, as discussed above, there is not enough information to provide meaningful comments. Critical environmental documents are woefully out of date. OSM itself has acknowledged the need to update them. The available environmental assessments (*e.g.*, 1989 CHIA, 1990 EIS) do not take into account the impacts of the proposed revisions. Nor do they take into account new information that has come to light in the last decade, particularly with regard to the impacts on the N-Aquifer. Without that updated information, it is impossible to meaningfully comment on the permit application.

Moreover, our requested informal conference and tour of the Black Mesa Mine has yet to occur. We are commenting now without the opportunity to hear OSM's responses to comments and concerns we and others will raise at the informal conference. Also, we are submitting comments without having the benefit of the information gathered during tour of Black Mesa Mine we requested pursuant to 773.6(c)(2)(iii) in our letter of March 29, 2002. Letter to Jerry Gavette, Office of Surface Mining Reclamation and Enforcement, from Mary O'Lone, Lawyers' Committee for Civil Rights Under Law, *et al.*, dated March 29, 2002.

1. Request for Oral Translations

The Executive Order on EJ directs agencies to provide oral translations EJ Executive Order §5-5(b). Moreover, DOI and OSM EJ and LEP Guidance also state that oral translations will be provided at hearings and other important public meetings. The DOI LEP Guidances states that "[e]ach bureau and office shall have an established policy and procedure for providing timely, competent, and quality language assistance services to LEP persons in both face-to-face and telephone encounters." DOI LEP Guidance, Section VI. D. at 8. It further points out that "[t]he essential exchange of information is especially difficult when the two parties involved speak different languages and it is compounded even further when an unqualified third person attempts to serve as an interpreter. . . An untrained "interpreter" is often unable to understand program related concepts or official terminology he or she is being called upon to interpret or translate." Id., at 3-4.

The OSM section on public participation in the DOI EJ Strategic Plan states that OSM, "[in] an effort to ensure that all members of affected communities have the opportunity to convey their ideas and concerns to the agency on decisions that affect their community, we have established proactive public participation procedures to: ensure the attendance of interpreters at all public hearings for non-English speaking participants." DOI EJ Strategic Plan, at 4. OSM guidance states that for proposed OSM activities on Indian Lands, WRCC will provide translators "to facilitate communications with non-English speaking participants." WRCC Public Participation and EJ in Indian Lands Guidance, at 3.

The Hopi language has always been an integral and vital part of Hopi culture. It is the wellspring of Hopi ceremonial life; it expresses kinship and clan relationships; it holds the Hopi people's history. It is the foundation of creative expression and cultural continuity that stretches back at least one thousand years. The U.S. Bureau of the Census, in "Characteristics of American Indians by Tribe and Language" states that in 1990 there were 5,264 persons over 5 years of age who spoke the Hopi language at home. If the number of people speaking Hopi at home remained constant, by 2000 nearly one-third of those Hopi speakers would be 65 years and older.

Because so many Hopi and Navajo, particularly elders, are limited English proficient, we specifically request that both Hopi and Navajo translation be provided for all radio notices, and that translation by qualified translators be provided at all public hearings, meetings, informal conferences, and other public fora related to the Black Mesa Mine and Peabody's permit applications.

2. Request for Informational Public Meetings and Training

In the Outreach section of its public participation guidance, OSM states that "For OSM activities on Indian lands, WRCC:

> Promotes informational public meetings to educate local populations and give them a greater opportunity to voice concerns about mining and reclamation activities in their area.
>
> Promotes informal training opportunities for local populations on administrative, technical, and environmental issues related to mining and reclamation activities in the area.
>
> Promotes the development of native-language educational materials on mining and reclamation activities."

Id., at 4. We are unaware of any OSM activities in the past four years related to the Black Mesa Mine designed to comply with this section of the guidance.

There have been no informational meetings designed to give local populations a greater opportunity to voice concerns about the Black Mesa mining activities. In fact, the informal conference, granted at the request of Black Mesa Trust, not the instigation of OSM, is the only such opportunity we are aware of since the issuance of the WRCC Public Participation and EJ in Indian Lands Guidance where the local population will be able to voice concerns about mining and reclamation activities in their area. We also request that OSM comply with its guidance and provide informal training opportunities and develop native language educational materials.

It has been impossible for Black Mesa Trust to get information that is suitable for dissemination to the public. Nothing suitable for the general public has been disseminated by OSM related to the Black Mesa Mine permit issues. Information that is available is highly detailed and technical in nature. As described earlier, it was even difficult for the Black Mesa Trust and other interested parties to obtain copies of the permit revision application. Thus, we request that as the permitting process progresses, OSM develop documents that are easy to understand, provide the necessary information for the affected community to assess the impacts proposed activities will have on their community, and provide written and oral translations of important information.

VII. CONCLUSION

The public comment process should never have been initiated because the permit application was not complete under the regulations. In its permit revision application, Peabody did not submit basic required information; much less up-to-date information on ownership, violations, bonding, impoundments, and other subjects discussed above. As the regulations state and as we have described in detail above, this information is a prerequisite to requesting public comment. Therefore, we object to any approval of the permit request as the application is incomplete.

Moreover, we object to the starting, much less ending, of the public comment process on the permit application until the application is complete as required by the regulations.

We agree with OSM that the permit revision request is significant and should be processed as if it is a new application under the regulations. Therefore, OSM must do more than just review its old findings in light of the proposed revision to the application. As stated earlier, OSM should review new information and allow public comment on information in the existing permit application, the revised permit application, and new information that has come to light since the initial original application was submitted.

We object to the issuance of the permit on a number of grounds. First, the public notice published in newspapers fails to meet regulatory requirements. Second, the public participation process fails to follow direction in a Presidential directive (*i.e.*, LEP Executive Order) and DOI Guidance on translations. Third, the public participation process fails to follow direction in a Presidential directive (*i.e.*, EJ Executive Order) and DOI and OSM environmental justice guidance. Fourth, the public participation process thus far has failed to provide the affected community and interested parties fundamental due process. All of the deficiencies described above have contributed to a public participation process that has severely handicapped the people most directly affected by the ongoing and proposed mining activities. The OSM public participation process to date has made it virtually impossible for the public to meaningfully participate in the public comment process for the life-of-the-mine request and permit application revision. We request that the public comment period not close until all relevant and necessary information is available to the public in a way that is easily understandable and readily accessible.

TESTIMONY OF ROBERT W. TREPP

Mr. Chairman, Mr. Vice-Chairman, and members of the Committee:

My name is Robert W. Trepp. I am an enrolled Muscogee (Creek) citizen, a member of Loca'pokv tribal town and its Beaver clan. I am a former Constitution Commissioner and former Chief of Staff for a past Principal Chief, and am currently serving as a Citizen Representative on our Constitution Review Committee. I am also a Board member of the Inter-Tribal Sacred Land Trust, which is working to protect cultural sites of tribes which have suffered the effects of removal from ancestral lands and/or the allotment of a tribal land base, with particular emphasis upon cultural sites containing human remains, as well as tribal ceremonial grounds and family cemetaries which are not on tribal property. As a result of the allotment policy of the 1890's, the Muscogee (Creek) people now have restricted title in less than 5% of the reservation area, and about half of that 5% is surface rights. The forty-five communities we had a hundred and ten years back are no longer a part of the landscape, and that they still exist in the minds of our people is a miracle in itself.

Cultural sites in the southeastern United States do not fit neatly into statutory categories. By far, the greatest number of sites are associated with the Muscogee (Creek) people, but the single confederacy which signed its first federal treaty in 1790 today includes not only the Muscogee Nation removed to Oklahoma, but also the Seminoles of Florida and Oklahoma, the Miccosukee in Florida, the Poarch Band in Alabama, the Coushatta in Louisiana, and the Alabama in Texas, as well as isolated non-tribal descendants and several groups seeking federal recognition. In addition, a single site most likely has layers of occupation, with differing degrees of relationship from layer to layer as different groups moved into the southeast and mingled with the groups already in residence. A single site may have early occupations difficult to associate with a specific modern group dating from the Archaic or Woodland period, followed by occupations easier to identify with the general culture, followed by historic period occupations by known peoples. Sometimes those known people and their descendants all remained with the principal body of Muscogee or Seminole through the removal era, but it is not uncommon that known groups have descendants among the Muscogee (Creek) and Seminoles. Near the Tennessee River, it is expected that historic Cherokee sites are actually the top layer over several prehistoric Muscoghean occupations.

Among the Muscogee Nation, we still recognize our forty-five tribal towns which were able to reorganize after removal. Most of these are traceable to specific geographic locations within the historic period, and a few even to first contact in 1540. These tribal towns are small tribes, usually related to other groups through actual descent or through other historical or even religious ties. A town with descendant towns is a Mother town, a descendant town is a Daughter town, two towns descended from the same town are Sister towns. We know that, both during the historic period and prehistoricly, it was a conscious policy of tribal leaders to relocate daughter towns to be in the proximity of unrelated towns, because proximity would build social and economic ties which would help unite the Confederacy. At the time of European contact in 1540, as documented by the deSoto invasion, the great peace and refuge town of Kusa (Coosa) was located in northern Georgia. Its daugher towns of Hickory Ground, Tulsa, and Okfuskee

were located further down the Coosa River near the main body of Muscogee towns, while the Muscogee-proper town of Apika (Arbeka) was located nearer to Coosa within the next 20 years. Even after Removal, the Kosalgi (Coosa-people) towns scattered, with locations in the new reservation for Old Tulsa in the southeast, New Tulsa and Tulmochussee in the southwest, Okfuskee in the west, and Loca'pokv to the north. Our tribal towns are the essential internal structure of our nation, and as late as 1895 were still solely responsible for the enrollment of their members. The Opler report to the Bureau of Indian Affairs published in the 1940's described the Muscogee tribal towns as a North American political phenomenon, being surviving prehistoric self-governing polities which were the sole example of a tribal society which was able to develop a political institution stronger than the clans. These towns represent not only the Muscogee-proper towns, but also our non-Muscogee town groups of Yuchi, Kusa, Hiciti, Tukapace, Thlewathle, Alabama, and Koasati, and also include within themselves Natchez, Shawnee, Chickasaw and others who chose to become part of our Confederacy over two hundred years ago. Returning to the pre-contact context, almost all of our tribal town groups have migration legends, with the Muscogee-proper towns coming from the far west near the Rocky Mountains, the Hitchiti from the southwest near Mexico, the Tukapace coming from the northwest, the Yuchi coming from islands in the east.

At the Ocmulgee Mounds National Monument in Macon, Georgia, for example, the site is named for a town which lived near the mounds in the 1730's, many years after the mounds' builders and occupants had abandoned the site, and strict cultural affiliations are difficult to prove; however, the site is important to all Muscogee people as the birthplace of the confederacy itself. This cultural prominence was important during the tribal effort to establish the first Tribal Cultural Property designation east of the Mississippi in 1995 in response to the continuing effort of the Georgia Department of Transportation to build an expressway through lands the Muscogee Nation first protected by treaty in 1805. These lands, mostly outside the National Monument property line, are rich in archeological resources which have not been comprehensively surveyed. They are the homes and graves of the people who built the mounds. Our 1995 resolution as well as earlier opposition to the expressway remain tribal law today. The last tribal council member who introduced legislation to approve the Macon expressway was not re-elected. The federal policies in place at this time have slowed the promoters of the expressway, but it has not deterred them completely. They keep thinking our people will change their minds about a site we have tried to protect for almost two hundred years. Occasionally they will get a tribal officer to come to Macon and make a supportive statement, but those statements are really a false hope to the promoters. We aren't opposed to the project because of the noise or the pollution or the spoiling of the view. We are opposed to the project because of the damage it will do to our ancestors' burials and to both documented and undiscovered archeological sites in an area where the prehistory is significant yet not completely understood. The 'surface archeological survey' they performed about ten years ago was performed when the Ocmulgee River was near flood stage, and we think they purposefully planned this timing in order to diminish the number of sites they would encounter, just as they have provided tribal leaders with maps of the highway which do not show any detail of the intersection which would have to be built. Just this spring, a Draft Environmental Impact Statement was proposed and shared with National Park Service staff, and local NPS staff and Macon citizens were very supportive in providing 62 pages of comment to that draft. A new draft is scheduled to be availablenext winter. While the project has been

removed from the Fall Line Freeway and other federal project lists, the fact that an intersection with a federal interstate highway would be required is keeping the protection of federal statutes effective and, so far, very supportive of our adopted tribal position. If federal laws are strictly followed, we do not believe this expressway will be built through these lands.

Another disturbing series of events has been at Hickory Ground, outside Wetumpka, Alabama. The Department of the Interior granted funds to the State of Alabama in 1978 to protect this site, and Alabama granted the funds to the Poarch Band, then a state recognized tribe. The site was placed in USA Trust for the Poarch Band in the 1980's upon their federal recognition, but in 1998 a preservation covenant in the deed expired, and the Poarch Band has conducted archeological surveys, graded land, installed utilities, and built a bingo hall on the site. All these actions were taken or approved by the Eastern Area Office of the BIA, without any consultation whatsoever with the people of Hickory Ground Tribal Town, who are still an organized tribal town with an exact location and known officers. The leaders of Hickory Ground cannot be here today because of their responsibilities for their annual ceremonies, but their position is still that they are disturbed by the situation because they have not been consulted. They feel a responsibility for the burials of their people which far exceeds the standards of the American culture, and the responsibility for graves left behind in the east after Removal is one which has been discussed by each succeeding generation of leadership.

The Hickory Ground site is reverred as our 'last capitol before removal.' Our traditional people do not understand the ambivalence of the Poarch Band: they are "Creek" when it is to their advantage and they are "not Creek" when they see an opportunity for gain. My personal hope is that Congress suspend the Trust status of these lands until an agreement might be reached regarding their preservation. The only hope of the Poarch Band being forced to work with the Hickory Ground people is to make them understand that they cannot operate that bingo hall until an agreement is reached, and the only way to legally suspend operations of the bingo hall is to suspend the trust status of the lands, an action that only Congress can take. For almost two hundred years, this same group now known as the Poarch Band has behaved in the same way. They didn't want to adhere to tribal laws against nonmember settlements on tribal lands, so they invited outsiders to farm near their community. When tribal outrage turned into the Redstick uprising and their community turned into a battleground, and US forces intervened in what became known as the Creek War of 1813-14, they turned to the victorious federal forces and secured land grants separating them from the main body of the tribe. Claiming they had given up their tribal ways and wanted to live as ordinary citizens, they later pressed claims with the Alabama legislature and the Congress for damages they suffered in a war they had really started, even as their relatives to the north were being defrauded of their allotments and, homeless, chased down and placed in detention camps for removal to the west. They intervened in the tribal claim for proper valuation of lands taken in 1814, and later petitioned for federal recognition on the basis of being Creek and having Creek traditions. But they don't want to be Creek to the point of honoring our dead, much less to the point of honoring our historic sites. Since the same executive leadership has been in office at Poarch Band through these maneuvering we feel that they have defrauded the Interior Department by using preservation funding for economic development. Again, the adopted tribal policies attached to my statement continue to be our tribal law. The extensive documentation which I am submitting with this

testimony mostly consists of a copy of every document we have been able to collect concerning Interior's handling of the Hickory Ground property in Alabama, and I believe it is in the Committee's interest to have someone assigned to review the information and report back to the Chairman on its content.

Participating in the consultation process is an unfunded federal mandate. Our tribal government has limited resources, and officers and executive staff are usually more concerned about replacing someone's roof or finding funding for someone's chemotherapy than they are about problems with cultural sites 700 miles and 160 years behind us. But to the average tribal member, protecting these sites and their burials is a matter of plain human dignity and being accepted as members of the human race. Participating in the process costs both time and money, and in a tribal economy experiencing 25% unemployment and 45% underemployment, traditional people with time have no money, and traditional people with money have no time. In addition, many tribal officers and staff are under informed on the scope and nature of problems involving cultural sites. This is not surprising in light of the facts: we are 700 miles removed from the nearest sites, we are 160 years removed from our last sites before Removal, and the intervening years saw, until our lifetimes, laws in Georgia and Alabama against being Indian and within their boundaries. Within our traditional communties especially, there remains a deep seated resentment to those states as entities because of the way the removal was carried out. Remember, no treaty required our Removal, but we were removed contrary to the specific protections of our 1832 Treaty. To make our lack of information worse, the modern archeological movement has collected objects and mapped sites, but this knowledge is not generally shared. Museums do not set up travelling exhibits of artifacts and offer them in the communities where our children could learn from them; in this modern world of internet access we are teaching our children, nearly all of these objects are unavailable for online viewing. That is wrong. This is our cultural patrimony and our intellectual property as heirs of the artists and owners of the objects given in mourning.

Federal regulations aren't always written with these complexities in mind. For example, a university archeologist reports that Poarch's constructions close to where he located the burial of a girl about 10 years of age. The Poarch Band is recognized as a Tribal Historic Preservation Office and their records cannot be reviewed by outsiders. Their own published survey of the trust and non-trust lands found no burials whatsoever, unbelievable for a site with a known historic occupation exceeding 40 years. We believe the record shows that Poarch Band has demonstrated a strategy of dismissing archeologists whose reports they did not like, and apparently finally using the report of one who would make the findings they wanted, despite the facts. Many Muscogee people believe the Poarch Band has abused its Tribal Historic Preservation Office designation, and are trying to use a federal preservation policy for tribal economic development alone. There must be continuing executive evaluation of Tribal Historic Preservation Offices, and those which are abusing their authority should be decertified. Additionally, there is the matter of the Muscogee tribal towns. Although as described above they are essential components of our tribal culture, and pre-exist the confederacy itself, they are not seen as being "federally recognized tribal governments" for the purposes the implementation of most federal Indian policy, including the NAGPRA regulations, unless they are chartered under the 1939 Oklahoma Indian Welfare Act, and the costs in time and money of re-establishing

organizations for each of our tribal towns is seen as being beyond the capacity of our own tribal government by our current officials. Another overlooked problem has been the mining of gravel beds outside of Montgomery, Alabama, for road construction projects. While some 'salvage archeology' was able to study portions of sites such as Fuscate, Atasi and Kolomi prior to the gravel mining, major portions of these sites and their associated burials have been destroyed by bulldozing and removal of many acres of gravel. Our people of Eufaula town have a story about their first English trader 'going mad' and digging up a recent burial for the funerary objects which had been given in mourning. That may be the origin of the cultural impetus to make burials in gravel beds, to make the burials impossible for humans to penetrate. We have asked the Department of Transportation to prohibit construction materials for road projects from using gravel taken from archeological sites, but no action has been forthcoming.

While the NAGPRA statute protects 'lineal descendants', NAGPRA regulations recognize the more communal and social relationships which our define our culture. While the Hickory Ground people may not be the blood descendant of this 10-year-old girl, they are the descendants of her family and clan, the descendants of the people who buried her, the sole descendants of her tribal town in every political and social sense our culture knows. We have not yet been turned away on this argument, but we know it will be an uphill battle with the plain words of the regulations not being in our favor, and we have not yet found a discussion of this phrase in the legislative history of the statute which would settle the question one way or the other. Additionally, NAGPRA regulations require that Notice be given to a group or groups before Claims for funerary objects and human remains may be filed. Neither the Poarch Band nor its federal land manager, the BIA Eastern Area Office, have given notice to the Hickory Ground people regarding the Hickory Ground site. We are assisting the Hickory Ground people in preparing a Claim despite the fact that no Notice has been given, and hope that principles of equity and fairness will permit such a Claim to proceed.

In closing, the enormity of the problem appears to us as a crisis. Usually, what archeologists identify as a site is only the epicenter of a community which occupied all the nearby lands. The State of Alabama has identified over 30,000 prehistoric cultural sites, and our people once occupied as well all of Georgia and portions of Florida, Tennesee, and the Carolinas. A handfull of sites are adequately preserved, and thousands of sites are legally protected on federal and state lands, but the overwhelming number of sites are on private lands, and the same factors which made these sites useful to our people still make them useful to the people who replaced us. The United States needs a policy of tax credits, not just deductions, for people who protect private sites, and laws which expedite transfer of these sites back to the tribal government with the highest degree of cultural relationship. It is still considered a family weekend outing in the southeast to go pothunting, to dig in the graves of our people for ceramic pots. On the black market fed by this activity, plain pots can fetch thousands of dollars, while highly decorated pots can go for tens of thousands of dollars. It must be economicly attractive to non-Indians to protect, preserve and ultimately repatriate lands which contain burials, cultural sites, or historic sites. If it is not in their economic interest, it will rarely happen. Cities like Macon, Georgia, where 1920's school children saved pennies and nickels to purchase and preserve the Ocmulgee Mounds are the exception, not the rule. The existing tax deductions have not been a solution to the problem, and cannot be counted upon in the future. The fact that these sites are in private hands is a direct result of the implementation of federal policy.

Only federal policy can help preserve them for future generations. A hundred and ten years ago, we were one of the richest peoples in America. Our people did not know hunger. We do not now have the resources to care for our elders or our more fragile. We need federal assistance in policy and funding to protect the burials of our ancestors we were taken from in violation of our solemn Treaties with the United States.

On behalf of my fellow Muscogee citizens, I want to thank the Committee for the opportunity to discuss these issues.

Robert W. Trepp
July 17, 2002

CONFEDERATED TRIBES
of the
Umatilla Indian Reservation
Department of Natural Resources
CULTURAL RESOURCES
PROTECTION PROGRAM
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July 30, 2002

The Honorable Senator Daniel K. Inouye, Chair
Senate Committee on Indian Affairs
Hart Senate Office Building, SH-838
Washington, DC 20510

RE: Oversight Hearing on Sacred Sites Protection by the Department of the Interior

Dear Chairman Inouye and Members of the Committee:

Mr. Chairman and members of the committee, I am Armand Minthorn, member of the Board of Trustees and Chair of the Cultural Resources Commission of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). I offer these comments on behalf of the CTUIR Cultural Resources Committee. I intend to address three issues. First, the cultural resources programs within federal agencies are critically under funded, and this has endangered tribal sacred sites. Second, cultural resources are trust resources, and federal agencies have a Trust Responsibility to protect these sites and resources. Finally, the actions of the Bureau of Land Management (BLM) with regard to NAGPRA implementation have severely curtailed fulfilling the intent behind the legislation by denying a Trust Responsibility to manage these resources and prohibiting reburial of cultural items on BLM lands.

Over the past five years, I have served on the Review Committee established by the Native American Graves Protection and Repatriation Act (NAGPRA). I currently serve as the Chair of that committee. During my service to the tribe as well as the Review Committee, I have witnessed first hand the activities of federal agencies concerning the preservation of Sacred Sites.

Department of the Interior Cultural Resources Funding

Cultural resources represent some of the most sensitive and vulnerable resources in which tribes possess interests. The federal government is the largest individual landowner in the West. Across these vast stretches of land are archaeological sites, traditional cultural properties, burials, and any number of significant religious, cultural and sacred sites. Against

this backdrop, it has become painfully apparent that all federal historic resources protection programs are critically under-funded. These programs are the cornerstone of protecting sacred, archaeological and historic sites throughout the nation.

Laws such as NAGPRA, the Archaeological Resources Protection Act (ARPA) and the National Historic Preservation Act (NHPA) state clearly that the conservation of archaeological, cultural and historical sites is a priority of this nation. To date, however, we have been unable to find sufficient political support to get these resources protected. Agencies often rely upon their myriad legislative mandates to ignore cultural resources in lieu of activities for which they have a line-item in their budgets. This has led to inconsistent application of cultural resource laws between Departments and even within Departments. The Department of the Interior is a good example. While the National Park Service within Interior is the flagship of cultural resource preservation, agencies such as the Fish and Wildlife Service, the Bureau of Reclamation and the Bureau of Land Management have demonstrated neither the experience necessary to adequately implement these laws nor the willingness to give these resources the attention they deserve.

For example, in September, 1999, the Department of the Interior's Office of Inspector General (DOI-OIG) released a report entitled "Cultural Resource Management, Bureau of Land Management." DOI-OIG Report No. 99-1-808. This report concluded that "the Bureau did not adequately survey the public lands to determine the location, nature, and extent of culturally significant sites." The report also noted that this was the same conclusion reached in a 1987 General Accounting Office report and four Office of Inspector General reports issued in 1990 and 1991. In response to those reports, the BLM indicated that it would develop an overall strategy to identify significant sites. The 1999 report indicated that this "overall strategy" had not been implemented. The report stated that "Bureau officials at the offices we visited consistently stated that minimal time was devoted to identifying and protecting cultural sites on the many acres of unsurveyed land that the Bureau manages." From my experience, this pattern applies across many federal departments and agencies.

Only by Congressional action authorizing appropriations for cultural resource protection will federal agencies address take action to fully implement NAGPRA, ARPA, the NHPA and other legal authorities to preserve these resources.

Cultural Resources as Trust Resources

I should explain what I mean when I say "cultural resources." The CTUIR views cultural resources broadly, to include sacred sites, archaeological sites, occupation sites, and burials as well as traditional hunting, fishing and gathering areas, to name but a few. This definition would include "cultural items" as defined in NAGPRA, "archaeological resources" as defined in ARPA and "historic properties" as defined in the NHPA. I will use the term cultural resources to include these resources. It is because the tribes ceded these lands to the United States and the United States still holds title to these lands that the U.S. has a Trust Responsibility to manage cultural resources.

Specifically, there are two primary reasons why cultural resources are Trust Resources for purposes of the Trust Responsibility. First, because human remains are not "property" under common law, federal Indian law or international law, the tribes did not transfer ownership of their ancestors to the United States when they ceded vast tracts of lands. Second, statutes such as the NHPA, ARPA and NAGPRA acknowledge and define the specific responsibilities of federal agencies' management of cultural resources.

Recently, the Department of the Interior attempted to define the scope of "Trust Resources" to which the Trust Responsibility applies. In defining "Trust Assets," the DOI identified only "natural resources" as being within that category without any discussion of cultural resources. This, I believe, was an oversight by DOI when it developed its trust resource policy. One explanation is that tribal traditions dictate that no one "owns" our ancestors, nor are our ancestors "resources" or "assets" within the common definition of the terms. However, merely because cultural resources are difficult to define does not mean that they are subject to some lesser standard of protection than that afforded by the Trust Responsibility. Indeed, cultural resources are so difficult to define because individual tribes can attach different meanings to the term. The tribes, in partnership with agencies such as DOI have an obligation to protect tribal ancestors and sites on lands managed by federal, tribal, state and private owners. It necessary for federal agencies to acknowledge their Trust Responsibility and the obligations it encompasses to protect cultural resources as trust resources.

Under the canons of construction for interpreting Indian treaties, treaties are to be construed liberally, as the tribe would have understood them, with ambiguities resolved in favor of the tribe. County of Yakima v. Confederated Tribes and Bands of Yakima Nation, 502 U.S. 251, 269 (1992). The tribes understood that they were granting to the United States certain rights to tribal aboriginal territory. However, the treaty minutes from the Treaty of 1855 clearly indicate that there was no contemplation by the tribes that they were granting title to their sacred sites or to the graves of their ancestors. There was no such grant. Indeed, common law of the time dictated that human remains were not property and therefore could not be conveyed by deed, and descendants retained rights to protect those burials from destruction. When the United States accepted lands ceded by treaty, they acquired the responsibility to protect these tribal graves in trust for the culturally affiliated tribes.

Further, cultural resources are subject to the Trust Responsibility because Congress has specifically legislated that tribal rights in these resources must be protected. Congress implicitly recognized in ARPA tribal interests in sacred and archaeological sites. ARPA requires that when a permit is requested, the "Federal land manager shall notify any Indian tribe which may consider the site as having religious or cultural importance." 16 U.S.C. 470cc(c). ARPA also requires that regulations implementing ARPA "may be promulgated only after consideration of the provisions of the American Indian Religious Freedom Act (92 Stat.469; 42 U.S.C. 1996)."

Furthermore, both NHPA and NAGPRA acknowledge the significance of these sites to tribes and require consultation with tribal governments regarding them. The NHPA requires all federal agencies to establish a historic preservation program in consultation with Indian

tribes. 16 U.S.C. § 470h-2(a)(2)(D). The statute also requires the Secretary of the Interior to develop guidelines for plans to "encourage the protection of Native American cultural items" and "of properties of religious or cultural importance to Indian tribes[.]" 16 U.S.C. § 470h-4(b)(3). These guidelines should also "encourage owners who are undertaking archaeological excavations" to give notice to and consult with an Indian tribe which may have an interest in a cultural item under NAGPRA "prior to excavating or disposing of a Native American cultural item[.]" 16 U.S.C. § 470h-4(b)(4)(D).

NAGPRA was the first statute to elaborate upon the precise responsibilities of federal agencies and museums when Native American graves, human remains and sacred items are at issue. The law contemplates the repatriation of all Native American human remains which are or can be culturally affiliated. Additionally, NAGPRA only allows the excavation of Native American human remains after consultation with the "appropriate Indian Tribe." 25 U.S.C. § 3002(c). It was NAGPRA which finally proclaimed that tribes retain the same rights to protect their ancestors' graves as non-Indians do.

In practice, when items are unearthed, either intentionally or unintentionally, NAGPRA requires that a process be implemented to determine to whom the items are culturally affiliated and when repatriation should occur. In the interim, between the time that the remains are determined to be Native American and ultimate repatriation, the United States Department of Justice (USDOJ) has taken the position that they hold human remains in trust for the culturally affiliated tribe(s). This has been the consistent position of the USDOJ in the Ancient One (AKA "Kennewick Man") litigation. Lastly, in a letter from the Department of the Interior to Congress regarding the bill which eventually became NAGPRA, Deputy Assistant Secretary Scott Sewell stated,

> Although the Federal government legally owns human remains, it is our position that the government should have only stewardship responsibilities for human remains and other cultural items which should be held in trust for culturally affiliated groups who can establish rights to their ownership and for the scientific and educational benefits derived from some of these cultural items.
>
> H. Rep. 101-877, reprinted in 1990 U.S.C.C.A.N. 4367, 4389.

This letter acknowledges that human remains should be considered trust resources and encouraged Congress to recognize the line between "ownership" and "possession or control." NAGPRA made clear in its plain language that "possession or control" was the appropriate legal distinction for the Native American human remains in federal custody, rather than ownership.[1] In this, the purest legal sense, cultural resources are "trust resources" because the United States holds title to the lands on which they are located, and the tribes which are culturally affiliated to those resources retain legally protected interests in those items by way of NAGPRA, ARPA, NHPA, treaties, executive orders and other laws and agreements.

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[1] The USDOJ has argued that items stolen from Native American graves are property of the United States for the limited purposes of ARPA prosecutions and sentencing guidelines. Prior to 2002, ARPA crimes had no specific sentencing guidelines, other than the general theft guidelines.

BLM Cultural Resource Protection Policies

Several cultural resource issues have arisen with the Bureau of Land Management. Most significantly, the BLM adopted a policy in 1996 that prohibited reburial of repatriated human remains and other NAGPRA items on public lands. This upset the tribes because few sites are more sacred than the graves of our ancestors. As this Committee is well aware, tribal ancestors around the country were routinely excavated by federal agencies, museums, and archaeological looters. The passage of NAGPRA in 1990 sought to end this serious injustice, yet even today, federal agencies such as the BLM frustrate NAGPRA by denying tribes the ability to rebury our ancestors in their original graves.

The CTUIR has a policy of reburying our ancestors as close to where they were originally buried as possible. This is a policy rather than a tradition, because traditionally we did not excavate burials and thus did not have reburials. We have worked with various federal agencies to address the tribal policy to rebury on federal lands with varying degrees of success. Recently the Corps of Engineers expressed the belief that the language in the 2000 Water Resources Development Act, which allowed reburials on Corps property for remains from project lands, actually restricted their reburial authority. That is to say, the Corps would not allow reburial of remains taken from lands which were not "project lands" at the time of excavation, but which later became "project lands." Thankfully, other agencies such as the Forest Service have adopted policies which allow reburials on their lands in consultation with the agency. The decision of the Forest Service to allow these reburials is a strong step towards healing the wounds created by the removal of our ancestors.

In 1996, BLM took the unilateral position that reburials would not be allowed on BLM lands. Later, on July 1, 1998, the Director of the BLM issued Instruction Memorandum No. 98-131 (IM 98-131), which states in relevant part:

> Due to the substantial and extensive legal, logistical, and practical problems that would ensue if human remains and other "cultural items" repatriated or transferred to lineal descendants or tribes were to be reburied on public land, the Bureau's [BLM] existing policy, in place since 1996, is reaffirmed and clarified:
>
> **The BLM's managers shall not directly or indirectly authorize or permit the reburial of repatriated, removed, or transferred human remains and/or other NAGPRA materials, on public lands.**
>
> (emphasis in original)

This policy substantially limits the ability of the tribes to consult with BLM on NAGPRA matters because many tribes wish to rebury their ancestors as close as possible to their original burial. The legal position of BLM, as I understand it, is that NAGPRA transfers absolute ownership of cultural items to a tribe and therefore the legal responsibility of the agency for those remains is at an end when they are repatriated. BLM apparently does not

want to accept the responsibility for repatriated items on their lands. Additionally, both IM 98-131 and IM 98-132 state that NAGPRA materials and other archaeological resources are **not** "trust assets" and are thus **not** subject to the Trust Responsibility.

In May, 2000, the DOI-OIG released a report entitled "Native American Graves Protection and Repatriation Activities, Bureau of Land Management." DOI-OIG Report No. 00-I-377, May 2000. The report described general compliance with NAGPRA, but it did find that BLM staff had allowed reburials on public lands, thus ignoring the Instruction Memorandum 98-131. Colorado BLM officials indicated that "they believed BLM's prohibition of public land reburials was impeding the NAGPRA consultation process and that it reduced BLM's ability to repatriate NAGPRA remains to tribes because some tribes wanted the remains to be reburied near the original burial sites (on public land)." The report goes on to justify prohibiting reburials on public lands because, once repatriated, cultural items become the "personal property" of the tribe and are thus no longer protected by ARPA. This assertion is blatantly false. ARPA applies to all "archaeological resources" on public lands which are over 100 years old and are of archaeological interest.

BLM is in the process of revising the BLM Manual as it relates to cultural resources. All indications are that BLM will be fully incorporating the Instruction Bulletin guidance that prohibits NAGPRA reburials and denies the Trust Responsibility to protect cultural resources. This revision to the BLM Manual is being conducted without any consultation with tribal governments. Failure to consult with tribal governments when policies are being developed affecting them is inconsistent with the general Trust Responsibility, Executive Order 13175, and the April 29th, 1994, Memorandum to the Heads of Executive Departments and Agencies regarding Government-to-Government Relations with Native American Tribal Governments. Both the Executive Order and the 1994 Memorandum require consultation with tribal governments. Specifically, the 1994 Memorandum states:

> In order to ensure that the rights of sovereign tribal governments are fully respected, executive branch activities shall be guided by the following:
>
> (a) The head of each executive department and agency shall be responsible for ensuring that the department or agency operates within a government-to-government relationship with federally recognized tribal governments.
>
> (b) Each executive department and agency shall consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally recognized tribal governments. All such consultations are to be open and candid so that all interested parties may evaluate for themselves the potential impact of relevant proposals.
>
> (c) Each executive department and agency shall assess the impact of Federal Government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during the development of such plans, projects, programs, and activities.

Executive Order 13175, which supplemented the 1994 Memorandum, § 5 requires that "[e]ach agency shall have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." To

revise the guiding documents whereby the BLM implements NAGPRA, ARPA and the NHPA without tribal consultation is a breach of the Trust Responsibility and many other statutory and legal mandates the BLM has.

Conclusion

The United States undertook the duty to manage tribal resources when it entered into the government-to-government relationship with individual tribes through treaties, statutes and executive orders. When the U.S. accepted millions of acres of land from the tribes, it accepted the responsibility to manage these cultural resources in trust for the culturally affiliated tribes and tribal members. Cultural resources, including sacred sites, deserve more than lip-service of federal agencies. Until agencies accept that they have a Trust Responsibility to protect these sites and resources, tribal interests will continue to take a back seat to other agency responsibilities.

Finally, the BLM and other agencies should either recognize their responsibilities to allow reburials or be granted that authority from Congress. Simply put, the tribes did not create the "problem" of repatriation and reburial of ancestral human remains. The United States did when it directed, permitted or allowed the excavation of our tribal ancestors. We are only trying to rectify a wrong committed over the last three centuries. Is it too much to ask that we be allowed to rebury our ancestors as close to their original burial location as possible? The BLM would say yes. Should we have to beg to rebury our ancestors only to be told no? I submit to you today that only through consultation, even if it must be Congressionally mandated consultation, can we, together, resolve the protection of our cultural resources.

Sincerely,

Armand Minthorn, Chair
Cultural Resources Committee
Member, Board of Trustees

Cc: BOT/CRC/CRPP

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July 16, 2002

Members of the Honorable Senate
Indian Affairs Committee
Washington, D.C.

Dear Members of the Senate Indian Affairs Committee:

My name is LaRue Parker. I am the elected official of the Caddo Nation of Oklahoma. We have a vast cultural history in the states of Arkansas, Louisiana, Texas, and Oklahoma. The graves of our ancestors, who numbered in the tens of thousands, were left behind when we were forced to relocate to the dusty prairies of southwest Oklahoma. Although we have been displaced from our native homelands, sacred sites, and ceremonial centers, these places are still in our hearts and will never be forgotten.

On Saturday, May 27, 2000, I requested to visit several Caddo Indian cemetery sites that had been pillaged by looters on federal property in east Texas. These cemeteries were reported to me by professional archeologists who were concerned with the looting problem on Fort Worth District Corps of Engineers property at Lake O' the Pines, near the town of Jefferson, Texas. Prior to this visit, I had never been informed by any Corps personnel of the extent of the looting problem or notified of any desecration to Caddo cemeteries.

From looking at the open grave pits for as far as the eye could see, I could tell that the looting here had not "occurred overnight" but had been extensive and had been on-going for years. I was shocked and appalled that something like this could happen in our country and happen on land that is in the stewardship of a federal agency. My cultural preservation staff informed me that there is a large market for Caddo artifacts taken from graves, and that collectors buy and sell not only vessels, arrowpoints, beads and other funerary items but also human remains from these graves as well. The human skulls are often used as "tokens" by a variety of fringe groups such as Neo-Nazis and Satan worshipers to use in their rituals.

After viewing this desecration, I requested a meeting with Colonel Gordon Wells with the Fort Worth District Corps of Engineers. We brought the problem to his attention and hoped that we could discuss effective ways to halt the looting. We also discussed the

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development of a Programmatic Agreement regarding the identification and evaluation of historic properties on the lakes that the Fort Worth Corps of Engineers manage. We asked if the Corps had developed a Historic Properties Management Plan for the lakes in their charge. They had not. The Colonel asked his staff how much this would cost. The response was $50,000 dollars. I responded that we had the expertise to develop the HPMP and would do it for $25,000 dollars. However, we were not taken seriously, and to this day, there is no Historic Properties Management Plan for any of the five lakes in east Texas that are under the jurisdiction of the Piney Woods/Sam Rayburn Project offices.

During this meeting, we discussed the need for another archeologist to be hired with a background in Caddo Archeology, an archeologist who was preferably knowledgable about the history and the beliefs of the Caddo people. The Fort Worth Corps did hire another Cultural Resource Manager to manage the Piney Woods Project office, but he was merely transferred "in-house" from the Planning, Environmental, and Regulatory Division offices in Fort Worth to the Operations Division at Lake O' the Pines. When he was transferred to the Piney Woods District office, he had no experience in Caddo history or Caddo archeology. From reading some of the *Tribal Nations Exchange Newsletters* published by the Corps of Engineers, Mr. Stephen P. Austin has stated in reference to the looting of the lakes in east Texas that "Much of the pothunting occurred pre-US Army COE ownership..." our records and the many documents we obtained under the Freedom of Information Act show otherwise.

There are a whole suite of federal laws that should protect archeological sites, historic sites, and especially those sacred cemetery and mound sites related to the Caddo. The Native American Graves Protection and Repatriation Act (NAGPRA) applies to federal property. The Archaeological Resource Protection Act (ARPA) should also be enforced on this federal property. This law was passed in 1979, but since that time, our records show that the Fort Worth District prosecuted only one single ARPA case. The case was thrown out of court because the Corps attorney did not appear in the courtroom on the set trial date.

We have had a professional archeological consultant do a cultural resources "damage assessment" related to only the looting of the cemeteries at Lake O' the Pines as required by the Archaeological Resources Protection Act. This damage assessment takes into consideration the *archeological value* to the archeological information that has been lost due to this looting. Of eight cemetery sites at Lake O' the Pines alone, the damage ranges between $2,121,860.00 to $2,622,370.00. This is a travesty and a blatant disregard for our civil rights as American Indians and American citizens of the United States. This is not

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merely a loss of history to the state of Texas but a loss of our cultural identity and our heritage, a loss to the people who make up part of the Caddo Nation. We would like the members of the Indian Affairs Committee and the public at large to be made aware of this injustice.

For over two years, a draft Programmatic Agreement has been in circulation between the Fort Worth District Corps of Engineers and the Caddo Nation of Oklahoma. There is still no Historic Properties Management Plans for any of these lakes after numerous requests for the Fort Worth District to at least start a draft plan for our review. We have come to the point where we don't see the need for a Programmatic Agreement to be as strong as the need for these Historic Properties Management Plans; plans that would involve input of the Caddo Nation regarding the protection of their sacred places.

The name "Texas" was taken from the Caddo word "Taysha" meaning friend. We have had a long, extensively documented, and at times terrible history in the state of Texas. We ask that the Senate Indian Affairs Committee do what they can to address the problems of the Fort Worth District Corps of Engineers and their lack of enforcement of cultural preservation and burial protection laws on federal land and their disregard for Executive Order 13007. The Caddo people buried in these cemeteries have been desecrated. The memory of their graves deserve respect. Moreover, our living people have been impacted by both the actions and inactions of the Corps and their inability to stop the destruction of sacred sites on these federal properties.

Ironically, the Fort Worth District Corps of Engineers, working in consultation with our NAGPRA Coordinator, built a reburial area for the Caddo Nation to rebury human remains and funerary objects repatriated under NAGPRA. This reburial area is located at Jim Chapman/Cooper Lake near Cooper, Texas. Human remains were respectfully reburied there during a ceremony attended by myself, Colonel Wells, tribal members and members from our respective staffs. These human remains and the items with them had been excavated during the Cooper Lake archeological project and had after many years been returned to the tribe for the purpose of a proper and respectful reburial. The question I must pose is this: If someone were to go out and start digging up these remains and items just recently reburied, would the Fort Worth District prosecute these people? We would certainly hope so. However, we see very little difference in protecting this reburial area and the need for protecting the many known sacred Caddo cemeteries that have been documented on COE property over the years.

Thank you for your time.

Sincerely,

LaRue Parker
Chairwoman
Caddo Nation of Oklahoma

REPORT

INSPECT ON OF CONSTRUCTION ACTIVITY ON TRUST LANDS OF THE POARCH CREEK INDIANS, WETUMPKA, ALABAMA, TO DETERMINE IF SUCH ACTIVITY MIGHT HAVE OCCASIONED A VIOLATION OF THE ARCHEOLOGICAL RESOURCES PROTECTION ACT OF 1979

SUBMITTED BY

Donald R. Sutherland, PhD
Principal Archeologist/Federal Preservation Officer
Bureau of Indian Affairs

CHRONOLOGY

September 19, 2001 – Contacted by the BIA Eastern Regional Director about a report he had received about possible ground disturbing activity on trust lands of the Poarch Creek Indians in Wetumpka, Alabama. The land contains the site of Hickory Ground, an historic Creek Indian town. The property is listed in the National Register of Historic Places.

September 24, 2001 – Contacted (after unsuccessful attempts on September 20 and 21, 2001) Stacy Hathorn, Staff Archeologist for the Alabama Historical Commission, for any information she might have about such activity. I did this because her office is located in Montgomery, Alabama, some 15 miles from Wetumpka, which put her in a convenient position to provide direct professional observation of the site. She informed me that the Alabama State Archeologist, Tom Mayer had observed ground disturbing activity at the site on September 18, and had taken digital photographs. She e-mailed me a selection of the photos taken on September 18, 2001.

– Later this day, Tom Maher called me to describe what he had observed. Both he and Ms. Hathorn were convinced that the ground disturbing activity had affected archeological resources at Hickory Ground. For further confirmation, I contacted a professional archeologist employed at Fort Toulouse State Historic Site, located near Wetumpka. He, too, had observed the ground disturbing activity and believed it likely to have affected archeological resources. I do not recall this individual's name, but his associate, Greg Rinehart (sp.?), former Staff Archeologist with the Alabama Historical Commission, was with him during the conversation.

IN SUM: By the close of business on September 24, 2001, it appeared to me to be possible that archeological resources on Indian trust lands might have been removed or damaged in violation of the Archeological Resources Protection Act (ARPA).

September 25, 2001 – Consulted with Mary Anne Kenworthy, Attorney, Indian Affairs Division Department of the Interior, Office of the Solicitor, to determine if a violation of ARPA or other federal laws was legally possible in the context presented. We concluded that the only way to be certain whether a violation had occurred was to visit the site.

September 26, 2001 – Contacted Bill Day, Tribal Historic Preservation Officer for the Poarch Creek, to obtain details on the ground disturbing activity at Wetumpka, to determine if any of the activity might have required a tribal or an ARPA permit, and, if so, to learn if any permit had been issued. He informed me (1) that as far as he knew, no archeological resources had been excavated or removed from trust lands, but he was going to Wetumpka to determine if this was so; and (2) that he had not issued a tribal archeology permit, nor had he reviewed any application for an ARPA permit in connection with the ground disturbing activity. He also intimated to me that the Tribe would not welcome any outside investigation of what he described as a Tribal matter and that the Tribe had Tribal police posted to keep people (which I supposed to include the BIA) off of the site.

September 27, 2001 – Consulted with Mary Anne Kenworthy over options for investigating the situation at Wetumpka. This situation was that we had reason to suspect that archeological resources may have been damaged, or removed from trust lands, by a non-Tribal construction contractor who did not have a Tribal archeology or an ARPA permit, but that we would not be allowed on site to investigate informally. Our options were (1) to go to Wetumpka and view the ground disturbing activity without entering the property or (2) to conduct a formal investigation with BIA law enforcement, which would force access to the property. Though we did not prefer option (2), we decided to discuss the situation with BIA Law Enforcement.

September 28, 2001 – Briefed BIA Law Enforcement, obtained a pledge of assistance, and began planning for travel to Wetumpka for the purpose of conducting a formal, ARPA investigation.

– Briefed Deputy Commissioner of Indian Affairs on the situation and options. She believed the Assistant Secretary - Indian Affairs should decide how to proceed on the matter, so asked me to prepare a briefing for him, to include a recommendation that he contact the Tribal Chairman regarding a formal ARPA investigation.

October 1, 2001 – Contacted by Brian Pogue, Eastern Regional Assistant Director, to inform me that a lawsuit on Wetumpka had been filed against the Poarch Creek and that the Tribal Chairman, Eddie Tullis, had invited us to inspect the site. This occurred before the above referenced briefing reached the Assistant Secretary, and opened the way for us to visit the site without involving BIA Law Enforcement.

October 2, 2001 – Made arrangements for travel to Wetumpka.

October 3, 2001 – En route to Wetumpka.

October 4, 2001 – Met on the Poarch Creek trust lands at Wetumpka at about 11:30 a.m. with Brian Pogue, Eddie Tullis, Bill Day, and a tribal administrative assistant and the tribal attorney, whose names I do not recall. Inspected ground disturbing activity.

Jul-16-02 03:36pm From- T-885 P.04 F-531

RECEIVED

FINDINGS

1. Almost all of the ground disturbing activity that had been reported at Wetumpka occurred on fee land belonging to the Poarch Creek. This land is an approximately 50 yard-wide strip, bordered on the north by the trust land and on the south by a private development of multi-unit condominiums. According to Chairman Tullis, excess dirt from the construction of the private development was deposited without the Tribe's permission on the fee land in the mid 1990's. The ground disturbing activity on the fee land consisted of stripping surface vegetation, spreading the deposited dirt over the property and evening the surface. There is still a differential in ground elevation between this property and the adjacent properties. (See Attachment 1, photos.)

2. The only activity that occurred on trust land was confined to an approximately 100X100 foot square area (about /4 acre), bordered on the south side by the fee land. Vegetation consisting of four year-old scrub trees was first cleared from the area, then an approximately 3 foot layer of fill taken from the fee land was spread and leveled over the area. This is clear from the differential in elevation between this area and the adjacent trust land. (See Attachment 2, lower photo.)

A metal building consisting of six 60X12 foot, adjoined mobile units was moved onto this prepared area on trust land. The units remain on their wheeled carriages, which are further supported by cinder block piers on 2X2 foot flat concrete slabs that are resting on the surface of the fill. Neither the wheels nor the slabs supporting the piers penetrate more than four inches into the fill, and they do not penetrate at all into the original ground surface. (See Attachment 2, photos.)

According to Chairman Tullis, parking lots and ground disturbing activity for the connection of utilities associated with the building will all be located on the fee land. A mobile construction office and a dumpster currently located near the area are also on fee land.

3. Information on the nature and condition of archeological resources previously identified from within the 100X100 area of trust land comes from the following sources.

Mueller, Diane Silvia. 1992. Report on the Archaeological Investigations at the Hickory Ground (1EE89), Elmore County, Alabama, Part II: Parcel 21 and a Planned Road and Sewer Line.

Sheldon, Craig T., John W. Cottier and Gregory A. Waselkov. 1988. An Initial Report on the Subsurface Testing of a Portion of the Creek Indian Property at Hickory Ground.

Sheldon, Craig T., John W. Cottier and Gregory A. Waselkov. 1990. Additional Archaeological Investigations of the Hickory Ground Site, Elmore County, Alabama.

4. Attachment 3 depicts the archeological investigations that have occurred in the area where the mobile-unit building is located. Open lines show where in 1987 and 1988 Sheldon et.al. broke the ground surface with a tractor drawn disc and collected the artifacts that were thus exposed. Filled lines show where they used a blade and hand excavation to strip the plow zone to reveal intact "features" from human activity. These stripped areas were some 11 feet wide and 11 inches deep.

The test area running east-west in the place where the mobile-unit building is located revealed one post hole and a pit containing charcoal. The trench running north south through the east side of the area revealed three post holes. The only other archeological feature was a scoured strip, exposed in the two north-south trenches and running along the north edge of the building site. Iron oxide and nail fragments in this feature suggest that it represents a historic period log road.

In 1990, Mueller mechanically stripped the plow zone from a six foot-wide trench along the trust/fee property line on the south side of the mobile building site. She did not find any features in this trench. She did, however, recover about 200 small artifacts from a 50X100 foot area running east-west along the south side of the building site. The area had been disced and included her trench along the trust/fee property line. Over 160 of these artifacts were flakes from tool manufacture or use, or fragments of rock cracked by burning. The remaining artifacts were ceramic fragments.

5. There is no demonstrable evidence that archeological resources were removed by the siting of the mobile-unit building on Indian trust land in Wetumpka. There are no artifacts to be found that can be shown to have once been located within the area prepared for this building, much less to have been removed by the preparation activity.

There is also no evidence that archeological resources in the area where the mobile-unit building is located were or may be damaged. Because of the layer of fill, which rests on top of several inches of plow zone soil, intact archeological features located below the plow zone would not be affected. Moreover, multiple archeological testing below the plow zone by Sheldon et.al. (1988, 1990) indicate a sparsity of features in this area.

There is, further, no evidence that archeological resources in the plow zone on the area where the mobile-unit building is located were damaged. The area had been disturbed by repeated clearing and cultivating in the decades before its acquisition by the Poarch Creek and was subject to intensive surface collecting during previous archeological investigations. The only possible effect on the plow zone from site preparation would be from the uprooting of scrub trees while clearing the site and from the wheels of heavy equipment during the initial deposition of fill. These activities could have displaced or fragmented artifacts, but not more so than would previous clearing or cultivation.

Not only were artifacts in the plow zone in a previously disturbed context, they were also, according to surface collections by Sheldon et.al., relatively sparse in the area where the mobile-unit building is located. Given this sparsity and the amount of surface collecting done in the area, few, if any, artifacts are likely to have been displaced or fragmented by the clearing of vegetation from the site. In any case, as noted earlier, it is impossible to produce artifacts that can be proven to have come from the area prepared for the building, and to have been displaced or damaged specifically by this preparation activity.

6. There is no evidence that a violation of ARPA occurred on trust lands of the Poarch Creek Indians in Wetumpka, Alabama, hence no reason to launch a formal investigation or to otherwise pursue the matter.

7. There is no evidence that a violation of NAGPRA occurred on trust lands of the Poarch Creek Indians in Wetumpka, Alabama. No human remains or cultural items, as defined in NAGPRA, were visible in or around the area prepared for the mobile-unit building, and none exist that can be shown to have come from this area. Moreover, previous archeological testing of the area by Sheldon et.al. (1988, 1990) revealed neither human remains nor the conditions (e.g. evidence of house floors) where according to their findings, burials are most likely to occur.

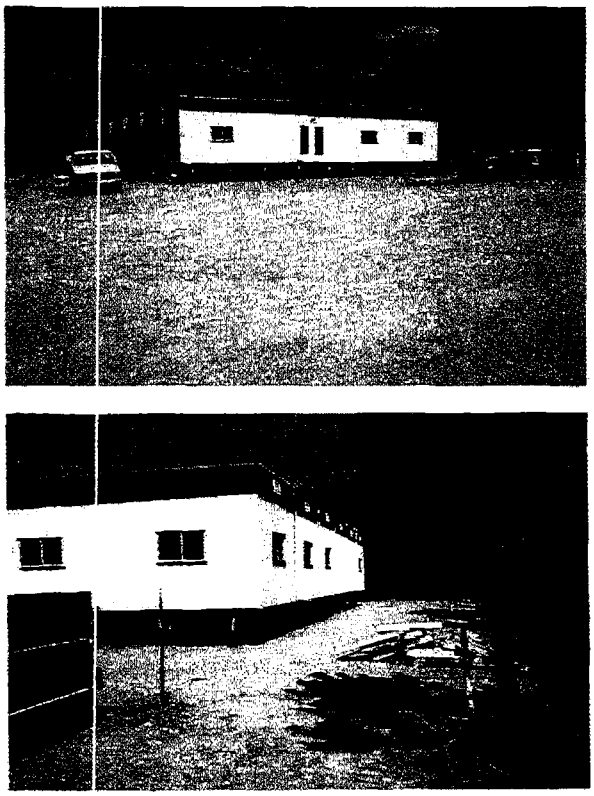
The closest known burial to the area where the mobile-unit building is located is between 150 and 200 feet northwest of the northwest corner of this area. For reference, I have indicated on Attachment 3 the locations of this and other burials found to date on both trust and fee land. In addition to the sources listed earlier, information on these burials came from the following sources:

Mueller, Diane Silvia. 1991. A Summary of the Archaeological Mitigation Completed From January Through March, 1991, of Areas A and C at the Hickory Ground Site, Elmore County, Alabama.

Mueller, Diane Silvia. 1992. Report on the Archaeological Investigations at the Hickory Ground (1EI89), Elmore County, Alabama (1990-1991), Part I: Areas A and C.

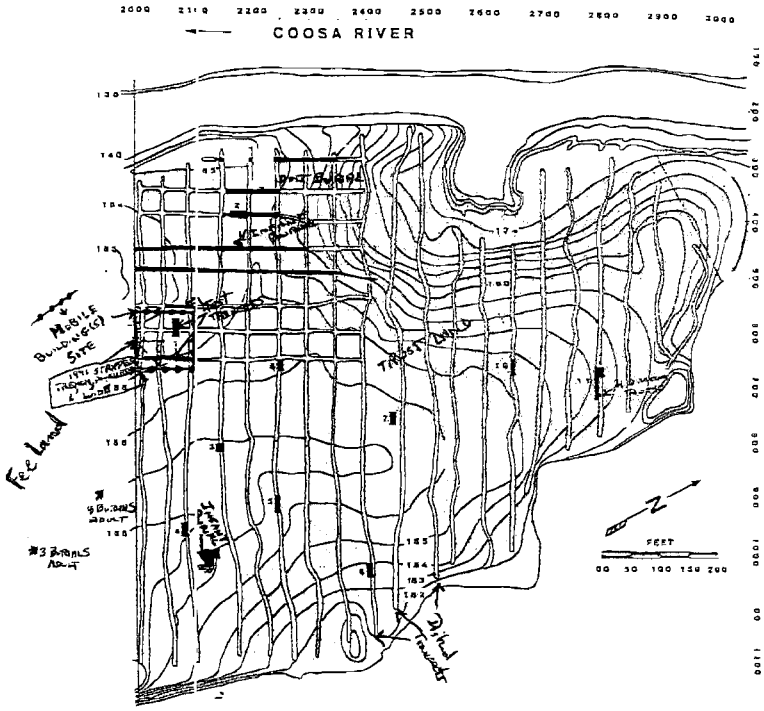
ATTACHMENT I

Views of the 1se land, looking west. Trust property line is the tree line on the right and the stake in the foreground of the lower photo. The mobile-unit building is on trust property.



ATTACHMENT 2

Upper: View of mobile-unit building from the south west. Lower: View of building from south east corner. Note fill elevation, right side of photo, and slabs supporting block piers.



ATTACHMENT 3

Site map from Sheldon, 1990, showing the location of disced transects (open lines) and excavation units (filled lines and areas) at the Hickory Ground site. I superimposed the burial locations, mobile-unit building location, and other information.

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Daniel K. Inouye, Chairman
Ben Nighthorse Campbell, Vice Chairman
Senate Indian Affairs Committee
Hart Senate Office Building Room 838
Washington, DC 20510

By Mail and Fax: 202.228.2589
July 29, 2002

Re: Quechan Indian Pass/Proposed Glamis Imperial Project Mine
Follow-up to July 17th Hearing Before the Senate Committee on Indian Affairs on the protection of Native American sacred places, Interior Oversight Hearing, Testimony & Questions

Dear Hon. Senators Inouye and Campbell:

On behalf of the Quechan Nation of Fort Yuma California and Arizona, we express our deepest thanks for your convening the series of oversight hearings regarding federal agency implementation of protection of American Indian sacred places and access to them. We are also grateful that Hon. President Mike Jackson, Sr., and Mr. Lorey Cachora were able to testify before you at the Department of Interior oversight hearing.

At the hearing, both of you asked several questions. We understand that the hearing record remains open through July 31 and would like to submit this letter and its attachments for the record in response to your questions.

Senator Inouye, you repeatedly asked the Interior and BLM representatives whether they consulted with the Quechan Tribal Government prior to deciding to rescind the Record of Decision denying the proposed mine. First, the Nation does not concede that Secretary Norton had the power to rescind the final agency action on the mine. That issue may have to be resolved in federal court, if the Secretary were to approve the mine. Second, as President Jackson testified, Interior did not consult with the Tribal Government prior to making the decision to rescind, despite the Tribe's repeated efforts to secure a meeting with Secretary Norton's office prior to the rescission. Nor were public hearings held prior to the rescission. The Nation continues to extend its invitation to Secretary Norton to meet the Quechan people and see the Indian Pass area for herself before taking any additional actions on these matters.

Through the Tribe's Freedom of Information Act (FOIA) requests, we learned after-the-fact, that Interior found the time to meet, in person, with Glamis' representatives

on September 13, 2001, in the weeks prior to Interior releasing a new Solicitor's Opinion recommending the rescission of the denial. (See Attachment A: LIST OF WITHHELD DOCUMENTS (43 C.F.R. Section 2.16(c), Entry 191, page 29 of 36)). As you know, there are many statutes, policies and manuals requiring government-to-government consultation before making decisions or enacting policies that would impact Indian concerns. For your convenience, Attachment B, is a brief listing of some of the authorities the Tribe believes Interior violated through its complete failure to consult with the Tribal Government prior to deciding to rescind the denial.

In fact, the Tribe was not even formally notified of Secretary Norton's rescission. The one paragraph rescission statement, enclosed as Attachment C, was informally communicated to the Tribe's counsel several days after it was signed. As you can see, Secretary Norton, without consultation with the Tribe, rescinded the 100-page RoD denying the mine by means of a seven-line statement vacating the denial so that the mine may be reconsidered.

Senator Campbell, you asked what recent legal steps the Tribe has taken to protect its sacred Indian Pass area. In April 2000, Glamis sued the federal government in an effort to overturn then-Solicitor John Leshy's Memorandum Opinion dated December 27, 1999, concluding that BLM had the authority to deny the proposed mine if it concurred with the October 19, 1999, findings of the Advisory Council on Historic Preservation, recommending that "Interior take whatever legal means available to deny approval for the project." The Tribe moved to intervene in Glamis' suit in support of the government's position in October 2000. Shortly thereafter, the Court dismissed Glamis' suit on the basis that it was not ripe. In January 2001, then-Interior Secretary Babbitt denied the mine.

In March 2001, Glamis again sued the federal government, this time seeking to overturn the mine denial of the mine and vacate the withdrawal of the sacred area alleging that the denial violated the Establishment Clause of the U.S. Constitution and that the Government lacks authority to withdraw lands, including the Indian Pass area. Again, the Tribe moved to intervene in this new matter in June 2001. During this period, the Government, under the new executive administration, repeatedly asked for extensions, did not file an answer and appeared to be avoiding a vigorous defense of the prior administration's decision. On November 13, 2001, the Tribe was granted intervention by right. Three days after being notified of the Tribe's intervention, on Thanksgiving Friday, Secretary Norton issued her summary rescission without notice to the Tribe, a press conference or other explanation. Shortly thereafter, Glamis withdrew its entire suit.

Senator Campbell, you also asked if any recent meetings have been held between the Tribal Government and the BIA. No such meetings occurred before the rescission was announced, despite efforts by the Tribe to secure such meetings. Many months after Secretary Norton rescinded the denial, in March 2002, Assistant Secretary of Indian Affairs Neal McCaleb's office called President Jackson to try to schedule an informal meeting with tribal members in Phoenix during a break in the trust accounting meetings Mr. McCaleb was attending there. In mid-March, while attending the Sacred Lands

Protection Coalition meetings in Washington DC, we were able to secure a meeting with Ms. Aurene Martin, then-Counselor to the Assistant Secretary for Indian Affairs. In late March 2002, Deputy Assistant Secretary Wayne Smith arranged to visit the reservation and tour the Indian Pass area. At that meeting, he told the Tribe that he would recommend that the mine denial be reinstated. We have not heard again from BIA since Mr. Smith's departure from that office, despite leaving messages for his replacement, Ms. Martin.

Also in March 2002, during the Sacred Lands Protection Coalition meetings held in Washington DC, we asked the representative from Interior's Office of American Indian Trust to assist the Tribe. He responded that the Glamis issue was "over his head." We also asked the American Indian and Alaskan Native Task Force of the Interagency Working Group on Environmental Justice to assist the Tribe. They said that they could not as the Glamis situation was "political." We also asked President Bush's legislative office for a meeting. They stated that they "would not be able to do the meeting" on any of the dates we suggested in March. The office did not offer any substitute dates or substitute people. No meetings with these offices have subsequently occurred.

To further answer your question, at this time, the Tribe has not filed suit to challenge the decision to rescind the denial. Importantly, no permits have been issued to approve the mine. It is the Tribe's hope that Interior will recognize its responsibilities to uphold the laws of the land and to do the right and moral thing and reinstate the denial of the mine, without having to be sued by the Nation. Moreover, Interior is working on a validity determination to determine whether Glamis actually holds valid existing mineral rights to mine the area. Interior has not announced what steps it might take to reconsider the mining plan of operations itself. The Tribe intends to pursue all avenues to protect and preserve its sacred ancestral places within the Indian Pass area. Senator Campbell, we thank you for your offer to write a personal letter to Secretary Norton, that could help advise Interior on what steps it should take next.

As a follow-up to the somewhat more general issue of how BLM has been protecting sacred places, we submit the following sources, as Attachments D and E: BLM's *Strategic Paper on Cultural Resources at Risk*, June 2000, which finds that our "Great Outdoor Museum" may soon lack sufficient integrity and representativeness to relate anything more than anecdotal accounts of western land use, and, BLM's *Our Vanishing Past: The Crisis of Cultural and Paleontological Resources on BLM Lands*, January 2002, which gives a state-by-state overview of the resource crisis. We are informed that the latter report is now being withheld by Interior. Both of these BLM-produced documents indicate that Indian resources on our public federal lands are increasingly, and seriously, at risk and at a critical stage. Cited reasons for this crisis include vandalism, sprawl development, illegal off-highway vehicle activity, utility infrastructure, neglect, and of course, certain mining operations. As a general matter, BLM itself states that Indian cultural heritage, including sacred areas, are presently inadequately protected by BLM.

We also would like to refer you to the National Research Council's *Hardrock Mining on Federal Lands,* commissioned by the U.S. Congress in 1999 (National Academy Press, Washington DC, 1999). As you may be aware, Glamis continuously miscites to this report for the alleged proposition that current laws and authorities adequately protect Indian sacred places. To the contrary, the Report states that there is a need for filling gaps and inadequacies in regulations, for improving implementation of such regulations and for increasing the availability and quality of information to protect historic and cultural resources, including sacred places. We have included specific passages from the Report as Attachment F. It is to the Council's credit that it came to these conclusions despite the fact that tribes were not invited to the hearings or to consult, but entities like Glamis and its attorneys were invited to participate. (Report, Appendix G). The Research Council found that additional work is needed, in many cases, to adequately protect sacred places on federal public lands from destruction.

Again, on behalf of the Quechan Tribal Government and the Quechan people, we thank you, the Committee and your staff for undertaking this series of hearings on the protection of sacred lands and their role in the vitality of living cultures, an issue that is so crucial to Indian Country. You are to be commended for your commitment to protecting American Indian sacred places. Please contact President Mike Jackson, Sr., at 760.572.0213 or me at 858.454.8687, should you desire additional information.

Very truly yours,

Courtney Ann Coyle
Attorney at Law

Encl. (A-F)

Cc: Hon. Barbara Boxer, U.S. Senator
Mike Pool, BLM State Director (w/o attachments C,D,E)
Mike Jackson, Sr., President Quechan Tribe (w/o attachments A,C,D,E)
Pauline P. Jose, Acting Chair Culture Committee
Emilio Escalanti, Council Liaison (w/o attachments)

LIST OF WITHHELD DOCUMENTS (See 43 C.F.R. § 2.16(c))

Description of Document	**Ground for Withholding**
1. Undated and unaddressed draft letter from William G. Myers III, Solicitor, responding to public comments received regarding Glamis Imperial Project	Deliberative process
2. Undated draft litigation report addressed to K. Jack Haugrud, Chief, General Litigation Section U.S. Department of Justice, regarding Glamis Imperial Corp. v. U.S. Department of the Interior, No. 01-01CV00530 (RMU) (D.D.C.) [hereinafter referred to as Glamis litigation]	Deliberative process, attorney work product
3. Undated draft suggested answer to complaint in Glamis litigation	Deliberative process, attorney work product
4. Undated draft letter from William G. Myers III, Solicitor, to Courtney Ann Coyle, Attorney at Law, responding to letter from Ms. Coyle dated August 31, 2001, regarding Quechan Indian Nation and Glamis Imperial Project	Deliberative process
5. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Ike Lowry, Tribal Chairman, Susanville Indian Rancheria, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
6. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Harold "Gus" Frank, Forest County Potawatomi, dated October 31, 2001, related to Glamis Imperial Project	Deliberative process
7. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Jolie Lonner, Special Projects Coordinator, Seventh Generation Fund, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process

8. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Claudia Brundin, Tribal Chairperson, Blue Lake Rancheria, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
9. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Sandra Meyer, dated November 6, 2001, related to Glamis Imperial Project	Deliberative process
10. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Mary Lu Prosser, Cheyenne River Lakota Tribal Member, Native American Rights Fund, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
11. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Audrey Kohnen, Tribal Council President, Lu Taylor, Taylor Council Secretary, Doreen Hagen, Tribal Council Asst. Sec./Treasurer, Prairie Island Indian Community, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process
12. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Pearl Capoeman-Baller, President, Quinault Indian Nation, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
13. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Sandra Rachal, Tribal Chairwoman, Sokaogan Chippewa Community, dated October 30, 2001, related to Glamis Imperial Project	Deliberative process
14. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Vivian L. Burdette, Chairperson, Tonto Apache Tribe, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
15. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Robert Salgado Sr., Tribal Chairman, Soboba Band of Luiseno Indians, dated November 2, 2001, related to Glamis Imperial Project	Deliberative process

16. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Clinton M. Pattea, President, Fort McDowell Yavapai Nation, dated October 30, 2001, related to Glamis Imperial Project	Deliberative process
17. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Alfred Peone, Chairman, Spokane Tribe of Indians, dated November 7, 2001, related to Glamis Imperial Project	Deliberative process
18. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Daniel Eddy, Jr., Tribal Chairman, Colorado River Indian Tribes, dated October 30, 2001, related to Glamis Imperial Project	Deliberative process
19. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Peter Coyote, Wild Dog Productions, dated October 31, 2001, related to Glamis Imperial Project	Deliberative process
20. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Courtney Ann Coyle, Attorney at Law, dated August 31, 2001, related to Quechan Indian Nation and Glamis Imperial Project	Deliberative process
21. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Ike Lowry, Tribal Chairman, Susanville Indian Rancheria, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
22. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Harold "Gus" Frank, Forest County Potawatomi, dated October 31, 2001, related to Glamis Imperial Project	Deliberative process
23. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Jolie Lonner, Special Projects Coordinator, Seventh Generation Fund, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process

24. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Claudia Brundin, Tribal Chairperson, Blue Lake Rancheria, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
25. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Sandra Meyer, dated November 6, 2001, related to Glamis Imperial Project	Deliberative process
26. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Alma Ransom, Tribal Chief, Saint Regis Mohawk Tribe, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process
27. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Mary Lu Prosser, Cheyenne River Lakota Tribal Member, Native American Rights Fund, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
28. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Audrey Kohnen, Tribal Council President, Lu Taylor, Taylor Council Secretary, Doreen Hagen, Tribal Council Asst. Sec./Treasurer, Prairie Island Indian Community, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process
29. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Pearl Capoeman-Baller, President, Quinault Indian Nation, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
30. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Sandra Rachal, Tribal Chairwoman, Sokaogan Chippewa Community, dated October 30, 2001, related to Glamis Imperial Project	Deliberative process

31. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Vivian L. Burdette, Chairperson, Tonto Apache Tribe, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
32. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Robert Salgado Sr., Tribal Chairman, Soboba Band of Luiseno Indians, dated November 2, 2001, related to Glamis Imperial Project	Deliberative process
33. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Clinton M. Pattea, President, Fort McDowell Yavapai Nation, dated October 30, 2001, related to Glamis Imperial Project	Deliberative process
34. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Alfred Peone, Chairman, Spokane Tribe of Indians, dated November 7, 2001, related to Glamis Imperial Project	Deliberative process
35. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Daniel Eddy, Jr., Tribal Chairman, Colorado River Indian Tribes, dated October 30, 2001, related to Glamis Imperial Project	Deliberative process
36. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Peter Coyote, Wild Dog Productions, dated October 31, 2001, related to Glamis Imperial Project	Deliberative process
37. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Ransom, Saint Regis Mohawk Tribe, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process
38. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Bigtree, Saint Regis Mohawk Tribe, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process

39. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Victress Hitchcock, Chariot Productions, dated November 15, 2001, related to Glamis Imperial Project	Deliberative process
40. Undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Day, Tuolome Me-Wuk Tribal Council, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process
41. Undated draft litigation report addressed to K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding Glamis litigation	Deliberative process, attorney work product
42. Undated and unaddressed draft letter from William G. Myers III, Solicitor, responding to letter commenting on Glamis Imperial Project	Deliberative process
43. Undated and unaddressed draft letter from William G. Myers III, Solicitor, responding to letter commenting on Glamis Imperial Project	Deliberative process
44. A third undated draft letter from William G. Myers III, Solicitor, responding to letter dated August 31, 2001, from Courtney Ann Coyle, Attorney at Law, related to Quechan Indian Nation and Glamis Imperial Project	Deliberative process
45. Undated transcribed voicemail message from Greg Page, Attorney, U.S. Department of Justice, to Karen Hawbecker, Attorney, Office of the Solicitor, U.S. Department of the Interior, regarding Glamis litigation	Attorney-client privilege
46. Undated draft letter from Fred E. Ferguson, Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, to Mr. K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, seeking extension of time in Glamis litigation	Attorney work product
47. Document entitled, Glamis Next Steps, dated October 29, 2001	Attorney work product, deliberative process

48. October 23, 2001 draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
49. October 23, 2001 draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining, with surnames by K. Hawbecker, P. Schaumberg, F. Ferguson	Deliberative process, attorney work product
50. October 22, 2001 draft of M-Opinion entitled, Surface Management Provisions for Hardrock Mining, reflecting comments by Ann Klee, Counselor to the Secretary	Deliberative process, attorney work product
51. October 22, 2001 handwritten document prepared by Ann Klee, Counselor to the Secretary, suggesting language to add to draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining, with fax cover sheet	Deliberative process, attorney work product
52. October 19, 2001 draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Bill Myers, Solicitor, with fax cover sheet	Deliberative process, attorney work product
53. October 10, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Bill Myers, Solicitor, with fax cover sheet	Deliberative process, attorney work product
54. October 10, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
55. October 9, 2001, 5 p.m. draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
56. October 9, 2001, draft summary of M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product

57. October 5, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
58. October 4, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten note from Bill Myers, Solicitor, to Secretary Gale Norton, and with handwritten comments by Secretary Gale Norton	Deliberative process, attorney work product
59. October 4, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten note from Bill Myers, Solicitor, to Secretary Gale Norton	Deliberative process, attorney work product
60. October 4, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
61. October 2, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
62. October 2, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Bill Myers, Solicitor	Deliberative process, attorney work product
63. October 1, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
64. Note dated September 27, 2001, from Solicitor to Secretary regarding draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten questions by Secretary and with attached September 27, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
65. September 27, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten notes on back page by Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product

66. September 27, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining noted as being given to Secretary Gale Norton for review	Deliberative process, attorney work product
67. September 27, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining noted as being given to Solicitor Myers for review	Deliberative process, attorney work product
68. September 25, 2001, 6 p.m. draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
69. September 25, 2001, 6 p.m. draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Bill Myers, Solicitor	Deliberative process, attorney work product
70. September 25, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
71. September 23, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
72. September 23, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
73. September 20, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Bill Myers, Solicitor	Deliberative process, attorney work product
74. September 20, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining, noted as being given to Bill Myers for review on September 21, 2001	Deliberative process, attorney work product

75. September 20, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining, noted as being given to Bill Myers for review on September 20, 2001	Deliberative process, attorney work product
76. September 19, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
77. September 19, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
78. September 18, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
79. September 13, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
80. Correspondence Background Form dated September 12, 2001, regarding letter to Department of Justice requesting that it seek enlargement of time in Glamis litigation	Deliberative process, attorney work product
81. August 17, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten comments by Bill Myers, Solicitor	Deliberative process, attorney work product
82. August 16, 2001, 5 p.m. draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
83. August 14, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product

84. Electronic message dated July 18, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Harvey Blank, Attorney, Division of Mineral Resources, Office of the Solicitor, regarding status of Glamis litigation	Attorney work product
85. Electronic message dated June 21, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis #28 draft reply"	Deliberative process, attorney work product
86. Electronic message dated June 18, 2001, from Glen R. Miller, Environmental Coordinator, El Centro BLM Field Office, to Barbara Fugate and Karen Hawbecker, Attorneys, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis #28 draft reply"	Deliberative process, attorney work product, attorney-client privilege
87. Electronic message dated June 19, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, regarding draft answer in Glamis litigation	Deliberative process, attorney work product
88. Handwritten notes dated August 8, 2001, prepared by Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, regarding meeting related to Glamis litigation with Bill Myers, Solicitor; Matt McKeown, Special Assistant to the Solicitor; Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Joel Yudson, Attorney, Division of Mineral Resources, Office of the Solicitor; Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor; Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product

89. Draft litigation report and draft answer dated August 6, 2001, to K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding Glamis litigation	Deliberative process, attorney work product
90. July 20, 2001 summary and status of Glamis litigation	Attorney work product
91. Draft litigation report and draft answer dated July 16, 2001, to K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding Glamis litigation	Deliberative process, attorney work product
92. Electronic message dated June 25, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, regarding motion for enlargement of time in Glamis litigation	Attorney work product
93. Electronic message dated June 2, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor, regarding status of Glamis litigation	Attorney work product
94. Undated summary and status of Glamis litigation with handwritten comments by Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor	Attorney work product
95. June 25, 2001 draft answer to complaint in Glamis litigation	Deliberative process, attorney work product
96. Draft litigation report and draft answer dated June 18, 2001, to K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding Glamis litigation, with handwritten comment by Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product

97. Draft litigation report and draft answer dated June 11, 2001, to K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding Glamis litigation, with handwritten comments by Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
98. June 11, 2001 draft answer to complaint in Glamis litigation	Deliberative process, attorney work product
99. Undated draft letter from William G. Myers III, Solicitor, to Mr. K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding extension of time in Glamis litigation	Deliberative process, attorney work product
100. Draft litigation report and draft answer dated June 6, 2001, to K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding Glamis litigation, with handwritten comments by Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
101. June 5, 2001, summary and status of Glamis litigation	Attorney work product
102. Draft litigation report and draft answer dated June 2001, to K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding Glamis litigation	Deliberative process, attorney work product
103. May 23, 2001, summary and status of Glamis litigation	Attorney work product
104. Fax cover sheet dated May 1, 2001, from Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, regarding Bureau of Land Management's (BLM) comments on Glamis complaint	Deliberative process, attorney work product, attorney-client privilege
105. Electronic message dated April 20, 2001, from John Mills, California State Office, BLM, to Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor regarding suggested answers to complaint in Glamis litigation by Rob Waiwood, Geologist, California State Office, BLM	Deliberative process, attorney work product, attorney-client privilege

106. May 1, 2001, suggested answer to complaint in Glamis litigation by Rob Waiwood, Geologist, California State Office, BLM, with handwritten comments by Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product, attorney-client privilege
107. Letter dated April 19, 2001, from William G. Myers III, Solicitor, to Mr. K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding extension of time in Glamis litigation	Attorney work product, attorney-client privilege
108. Correspondence Background Form dated April 18, 2001 about letter to Department of Justice regarding extension of time in Glamis litigation	Deliberative process, attorney work product
109. April 10, 2001, summary and status of Glamis litigation	Attorney work product
110. Undated draft letter from William G. Myers III, Solicitor, to Mr. K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding extension of time in Glamis litigation	Deliberative process, attorney work product
111. Undated handwritten notes by Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, related to work on draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Attorney work product, deliberative process
112. Undated copy of page 13 of draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with two attached pages of a judicial decision	Attorney work product, deliberative process
113. Portion of draft preamble dated September 24, 2001, for 3809 regulations with handwritten comments by Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor	Attorney work product, deliberative process
114. Undated copy of pages 14-28 of draft M-Opinion entitled Surface Management Provisions for Hardrock Mining with handwritten note by Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product

115. Undated draft of M-Opinion entitled Surface Management Provisions for Hardrock Mining with handwritten comments of unidentified person	Deliberative process, attorney work product
116. Undated draft litigation report and draft answer to K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding Glamis litigation, with handwritten comments by Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
117. Undated summary and status of Glamis litigation	Attorney work product
118. Undated summary and status of Glamis litigation	Attorney work product
119. Undated copy of page 1 of draft M-Opinion entitled Surface Management Provisions for Hardrock Mining with handwritten comments by Bill Myers, Solicitor	Deliberative process, attorney work product
120. Undated draft answer to complaint in Glamis litigation	Attorney work product
121. Undated draft litigation report and draft answer to K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding Glamis litigation	Deliberative process, attorney work product
122. Undated memorandum from Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, to Bill Myers, Solicitor, regarding rescission of Glamis ROD with fax cover sheet dated November 23, 2001, from Tim Elliott, Acting Deputy Solicitor, to Bill Myers, Solicitor	Deliberative process, attorney work product
123. Note dated October 29, 2001, to Peter Schaumberg, Deputy Associate, Division of Mineral Resources, Office of the Solicitor, from Fred E. Ferguson, Associate Solicitor, Division of Mineral Resources, Office of the Solicitor regarding rescission of Glamis ROD	Deliberative process, attorney work product
124. Undated and unaddressed draft letter from William G. Myers III, Solicitor, responding to public comments received about the Glamis Imperial Project	Deliberative process

125. A second undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Alma Ransom, Tribal Chief, Saint Regis Mohawk Tribe, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process
126. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Ike Lowry, Tribal Chairman, Susanville Indian Rancheria, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
127. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Harold "Gus" Frank, Forest County Potawatomi, dated October 31, 2001, related to Glamis Imperial Project	Deliberative process
128. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Harold "Gus" Frank, Forest County Potawatomi, dated October 31, 2001, related to Glamis Imperial Project with changes by Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process
129. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Jolie Lonner, Special Projects Coordinator, Seventh Generation Fund, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process
130. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Claudia Brundin, Tribal Chairperson, Blue Lake Rancheria, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
131. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Sandra Meyer dated November 6, 2001, related to Glamis Imperial Project	Deliberative process
132. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Courtney Ann Coyle dated August 31, 2001, regarding Quechan Indian Nation and Glamis Imperial Project	Deliberative process

133. A fifth undated draft letter from William G. Myers III, Solicitor, responding to letter from Courtney Ann Coyle dated August 31, 2001, regarding Quechan Indian Nation and Glamis Imperial Project	Deliberative process
134. A sixth undated draft letter from William G. Myers III, Solicitor, responding to letter from Courtney Ann Coyle dated August 31, 2001, with surname by B. Fugate dated November 19, 2001	Deliberative process
135. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Ike Lowry, Tribal Chairman, Susanville Indian Rancheria, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
136. A fifth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Ike Lowry, Tribal Chairman, Susanville Indian Rancheria, dated October 26, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 19, 2001	Deliberative process
137. A fifth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Harold "Gus" Frank, Forest County Potawatomi, dated October 31, 2001, related to Glamis Imperial Project with changes by Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process
138. A sixth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Harold "Gus" Frank, Forest County Potawatomi, dated October 31, 2001, related to Glamis Imperial Project with changes by Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor with surname by B. Fugate dated November 19, 2001	Deliberative process
139. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Jolie Lonner, Special Projects Coordinator, Seventh Generation Fund, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process

140. A fifth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Jolie Lonner, Special Projects Coordinator, Seventh Generation Fund, dated October 29, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 19, 2001	Deliberative process
141. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Claudia Brundin, Tribal Chairperson, Blue Lake Rancheria, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
142. A fifth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Claudia Brundin, Tribal Chairperson, Blue Lake Rancheria, dated October 26, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 19, 2001	Deliberative process
143. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Sandra Meyer dated November 6, 2001, related to Glamis Imperial Project	Deliberative process
144. A fifth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Sandra Meyer dated November 6, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 19, 2001	Deliberative process
145. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Mary Lu Prosser, Cheyenne River Lakota Tribal Member, Native American Rights Fund, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
146. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Mary Lu Prosser, Cheyenne River Lakota Tribal Member, Native American Rights Fund, dated October 26, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 19, 2001	Deliberative process

147. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Audrey Kohnen, Tribal Council President, Lu Taylor, Taylor Council Secretary, Doreen Hagen, Tribal Council Asst. Sec./Treasurer, Prairie Island Indian Community, dated October 29, 2001, related to Glamis Imperial Project	Deliberative process
148. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Audrey Kohnen, Tribal Council President, Lu Taylor, Taylor Council Secretary, Doreen Hagen, Tribal Council Asst. Sec./Treasurer, Prairie Island Indian Community, dated October 29, 2001, related to Glamis Imperial Project with File Copy Surname stamp	Deliberative process
149. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Pearl Capoeman-Baller, President, Quinault Indian Nation, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
150. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Pearl Capoeman-Baller, President, Quinault Indian Nation, dated October 26, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 19, 2001	Deliberative process
151. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Sandra Rachal, Tribal Chairwoman, Sokaogan Chippewa Community, dated October 30, 2001, related to Glamis Imperial Project	Deliberative process
152. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Sandra Rachal, Tribal Chairwoman, Sokaogan Chippewa Community, dated October 30, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 19, 2001	Deliberative process

153. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Vivian L. Burdette, Chairperson, Tonto Apache Tribe, dated October 26, 2001, related to Glamis Imperial Project	Deliberative process
154. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Ms. Vivian L. Burdette, Chairperson, Tonto Apache Tribe, dated October 26, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 19, 2001	Deliberative process
155. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Robert Salgado Sr., Tribal Chairman, Soboba Band of Luiseno Indians, dated November 2, 2001, related to Glamis Imperial Project	Deliberative process
156. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Robert Salgado Sr., Tribal Chairman, Soboba Band of Luiseno Indians, dated November 2, 2001, related to Glamis Imperial Project	Deliberative process
157. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Clinton M. Pattea, President, Fort McDowell Yavapai Nation, dated October 30, 2001, related to Glamis Imperial Project	Deliberative process
158. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Clinton M. Pattea, President, Fort McDowell Yavapai Nation, dated October 30, 2001, related to Glamis Imperial Project with File Copy Surname stamp	Deliberative process
159. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Alfred Peone, Chairman, Spokane Tribe of Indians, dated November 7, 2001, related to Glamis Imperial Project	Deliberative process

160. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Alfred Peone, Chairman, Spokane Tribe of Indians, dated November 7, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 9, 2001	Deliberative process
161. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Daniel Eddy, Jr., Tribal Chairman, Colorado River Indian Tribes, dated October 30, 2001, related to Glamis Imperial Project	Deliberative process
162. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Daniel Eddy, Jr., Tribal Chairman, Colorado River Indian Tribes, dated October 30, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 9, 2001	Deliberative process
163. A third undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Peter Coyote, Wild Dog Productions, dated October 31, 2001, related to Glamis Imperial Project	Deliberative process
164. A fourth undated draft letter from William G. Myers III, Solicitor, responding to letter from Mr. Peter Coyote, Wild Dog Productions, dated October 31, 2001, related to Glamis Imperial Project with surname by B. Fugate dated November 9, 2001	Deliberative process
165. Undated handwritten notes by Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, regarding meeting with Kevin McArthur, President & CEO, Glamis Gold Corporation; Charles Jeannes, Vice President and General Counsel, Glamis Gold Corporation; Tim McCrum, Attorney, Crowell & Moring, regarding Glamis litigation	Attorney work product
166. Handwritten notes by Peter Schaumberg regarding phone call on August 29, 2001, from Tim McCrum, Attorney, Crowell & Moring, regarding Glamis litigation	Attorney work product

167. Electronic message dated November 5, 2001, 2:10 p.m., from Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; with copies to: Fred Ferguson, Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor; Temi Berger, Acting Deputy Regional Solicitor, Sacramento Region, Office of the Solicitor, entitled Re: Glamis issues–Conference call request	Deliberative process, attorney work product
168. Electronic message dated November 5, 2001, 1:50 p.m., from Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, to Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor; with copies to: Fred Ferguson, Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor; Temi Berger, Acting Deputy Regional Solicitor, Sacramento Region, Office of the Solicitor, entitled Re: Glamis issues–Conference call request	Deliberative process, attorney work product
169. Electronic message dated November 5, 2001, 1:29 p.m., from Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor, to Temi Berger, Acting Deputy Regional Solicitor, Sacramento Region, Office of the Solicitor, with copies to: Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Fred Ferguson, Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled Re: Glamis issues–Conference call request	Deliberative process, attorney work product

170. Electronic message dated November 5, 2001, 12:46 p.m., from Temi Berger, Acting Deputy Regional Solicitor, Sacramento Region, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, with copies to: Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor; Fred Ferguson, Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled Re: Glamis issues–Conference call request	Deliberative process; attorney work product
171. Electronic message dated November 2, 2001, 5:05 p.m., from Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, to Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor; with copies to: Fred Ferguson, Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor; Temi Berger, Acting Deputy Regional Solicitor, Sacramento Region, Office of the Solicitor, entitled Re: Glamis issues–Conference call request	Deliberative process; attorney work product
172. Electronic message dated November 1, 2001, 1:31 p.m., from Stephen Simpson, Attorney, Division of Indian Affairs, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled Re: Minerals Attorneys Update: New Solicitor's Opinion	Deliberative process; attorney work product

173. Electronic message dated November 1, 2001, 10:49 a.m., from Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, to Bob M. Anderson, Deputy Assistant Director, Minerals, Realty & Resource Protection, BLM; with copies to: Gregory Thomsen, California State Office, BLM; James Hamilton, California State Office, BLM; John Mills, California State Office, BLM; Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor; Kevin Marty, California State Office, BLM; Leroy Mohorich, California State Office, BLM; Richard Grabowksi, California State Office, BLM; Robert Waiwood, California State Office, BLM, entitled Re: Glamis	Deliberative process, attorney-client privilege, attorney work product
174. Electronic message dated November 1, 2001, 10:11 a.m., from Bob M. Anderson, Deputy Assistant Director, Minerals, Realty & Resource Protection, BLM, to James Hamilton, California State Office, BLM; Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor; with copies to: Gregory Thomsen, California State Office, BLM; John Mills, California State Office, BLM; Kevin Marty, California State Office, BLM; Leroy Mohorich, California State Office, BLM; Richard Grabowksi, California State Office, BLM; Robert Waiwood, California State Office, BLM, entitled Re: Glamis	Deliberative process, attorney-client privilege, attorney work product
175. Electronic message dated October 26, 2001, 9:04 a.m., from Bob M. Anderson, Deputy Assistant Director, Minerals, Realty & Resource Protection, BLM, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled UUD and Glamis	Deliberative process, attorney-client privilege
176. Electronic message dated October 5, 2001, 5:58 p.m., from Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled Re: Clean Glamis Draft	Deliberative process, attorney work product

177. Electronic message dated September 25, 2001, 2:12 p.m., from Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled Re: Latest Draft of Glamis Memo	Deliberative process, attorney work product
178. Electronic message dated September 25, 2001, 12:29 p.m., from Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled Re: Latest Draft of Glamis Memo	Deliberative process, attorney work product
179. Electronic message dated March 30, 2001, 10:04 a.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor, with copy to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, entitled Glamis assigned to Greg Page	Deliberative process, attorney work product
180. Electronic message dated May 7, 2001, 4:01 p.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Amy Sosin, Attorney, Division of Land and Minerals, Office of the Solicitor, with copies to Marilyn Nickels, BLM Washington Office; John Douglas, BLM Washington Office; Roger Haskins, BLM Washington Office entitled Re: Glamis	Deliberative process, attorney-client privilege
181. Electronic message dated August 9, 2001, 4:57 p.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled Glamis answer	Deliberative process, attorney work product
182. Electronic message dated September 19, 2001, 4:47 p.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled Re-Glamis	Deliberative process, attorney work product

183. Electronic message dated September 19, 2001, 4:49 p.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, entitled "Note," related to new draft Glamis opinion	Deliberative process, attorney work product
184. Electronic message dated September 22, 2001, 6:00 p.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis," related to new draft Glamis opinion	Deliberative process, attorney work product
185. Electronic message dated September 22, 2001, 6:47 p.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis intro," related to new draft Glamis opinion	Deliberative process, attorney work product
186. Electronic message dated September 25, 2001, 9:55 a.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Bill Myers, Solicitor; Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor; Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Joel Yudson, Attorney, Division of Mineral Resources, Office of the Solicitor; Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor; Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor; Steve Harris, Paralegal, Division of Mineral Resources, Office of the Solicitor, entitled "Latest Draft of Glamis Memo"	Deliberative process, attorney work product
187. September 24, 2001 draft M-Opinion entitled Surface Management Provisions for Hardrock Mining	Deliberative process; attorney work product

188. Electronic message dated September 25, 2001, 11:07 a.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Re: Latest Draft of Glamis Memo"	Deliberative process, attorney work product
189. Electronic message dated October 1, 2001, 4:52 p.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Bill Myers, Solicitor; Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Joel Yudson, Attorney, Division of Mineral Resources, Office of the Solicitor; with copy to Mari Thomas, Staff Assistant to the Solicitor, entitled "Proposed schedule for completing Glamis opinion"	Deliberative process, attorney work product
190. Electronic message dated October 9, 2001, 8:54 a.m., from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Re: Clean Glamis Draft"	Deliberative process, attorney work product
191. Handwritten notes dated September 13, 2001, prepared by Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, during meeting with Bill Myers, Solicitor; Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Kevin McArthur, President & CEO of Glamis Gold Corporation; Charles Jeannes, Vice President of Glamis Gold Corporation; Tim McCrum, Attorney, Crowell & Moring, regarding Glamis litigation	Attorney work product
192. Document dated October 29, 2001, entitled "Glamis Next Steps" with handwritten comments by Fred Ferguson, Associate Solicitor, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product

193. Undated document entitled "New Solicitor's Opinion Regarding Two Hardrock Mining Issues" with handwritten comments by Fred Ferguson, Associate Solicitor, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
194. October 4, 2001 draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten notes by Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
195. September 25, 2001 draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten notes by Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
196. September 20, 2001 draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten notes by Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
197. September 27, 2001 draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with handwritten notes by Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
198. Electronic message dated April 16, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis extension request" with attached undated draft letter from Timothy S. Elliott, Acting Deputy Solicitor, Office of the Solicitor, to Mr. K. Jack Haugrud, Chief, General Litigation Section, U.S. Department of Justice, regarding extension of time in Glamis litigation	Deliberative process, attorney work product

199. Electronic message dated May 23, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, and Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis 45-day Summary" with attached May 23, 2001, summary and status of Glamis litigation	Deliberative process, attorney work product
200. Electronic message dated June 18, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis" related to Glamis litigation	Deliberative process, attorney work product
201. Electronic message dated July 18, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, and Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis" related to Glamis litigation	Deliberative process, attorney work product
202. Electronic message dated July 20, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, and Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis 45-day Summary" with attached July 20, 2001, summary and status of Glamis litigation	Deliberative process, attorney work product
203. Electronic message dated May 23, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Steve Harris, Paralegal, Division of Mineral Resources, Office of the Solicitor, entitled "Sorry - Here's the attachment" with attached July 20, 2001, summary and status of Glamis litigation	Deliberative process, attorney work product

204. Electronic message dated December 5, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Laura Brown, Assistant Solicitor, Branch of Public Lands, Division of Land & Water, Office of the Solicitor, entitled "Lands involvement in Glamis Imperial litigation"	Deliberative process, attorney work product
205. September 23, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with redlined comments by Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
206. October 5, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
207. October 12, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining	Deliberative process, attorney work product
208. Undated draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with redlined comments by Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
209. September 19, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with redlined comments by Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
210. October 12, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with redlined comments by Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product
211. October 4, 2001, draft M-Opinion entitled, Surface Management Provisions for Hardrock Mining with redlined comments by Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor	Deliberative process, attorney work product

212. Undated materials provided by Glamis officials at September 13, 2001 meeting with Bill Myers, Solicitor; Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, regarding Glamis litigation	Deliberative process
213. Electronic message dated September 20, 2001, from Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "glamis draft"	Deliberative process, attorney work product
214. Electronic message dated September 24, 2001, from Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "glamis comments 9/24"	Deliberative process, attorney work product
215. Electronic message dated June 5, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis lit report"	Deliberative process, attorney work product
216. Electronic message dated June 12, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Solicitor Confirmation Hrg Qs & As"	Deliberative process
217. Electronic message dated June 19, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis update"	Deliberative process, attorney work product

218. Electronic message dated September 23, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Steve Harris, Paralegal, Division of Mineral Resources, Office of the Solicitor; Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor; Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis/Sunday Draft"	Deliberative process, attorney work product
219. Electronic message dated October 3, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Steve Harris, Paralegal, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Available?" related to draft Glamis opinion	Deliberative process, attorney work product
220. Electronic message dated October 4, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor; Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor; Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor; Joel Yudson, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Clean Glamis Draft"	Deliberative process, attorney work product
221. Electronic message dated October 11, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, entitled "Re: glamis talking points"	Deliberative process, attorney work product

222. Electronic message dated June 1, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor; Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Re: glamis" related to Glamis litigation	Deliberative process, attorney work product
223. Electronic message dated October 4, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Joel Yudson, Attorney, Division of Mineral Resources, Office of the Solicitor; Wyndy Rausenberger, Attorney, Division of Mineral Resources, Office of the Solicitor; Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, Kendra Nitta, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Re: glamis talking points"	Deliberative process, attorney work product
224. Electronic message dated March 26, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Erica Niebauer, Attorney, Sacramento Region, Office of the Solicitor; Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, entitled "Re: Glamis complaint"	Deliberative process, attorney work product
225. Electronic message dated June 18, 2001, from Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis"	Deliberative process, attorney work product
226. Electronic message dated October 11, 2001, from Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor, to Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "glamis talking points"	Deliberative process, attorney work product

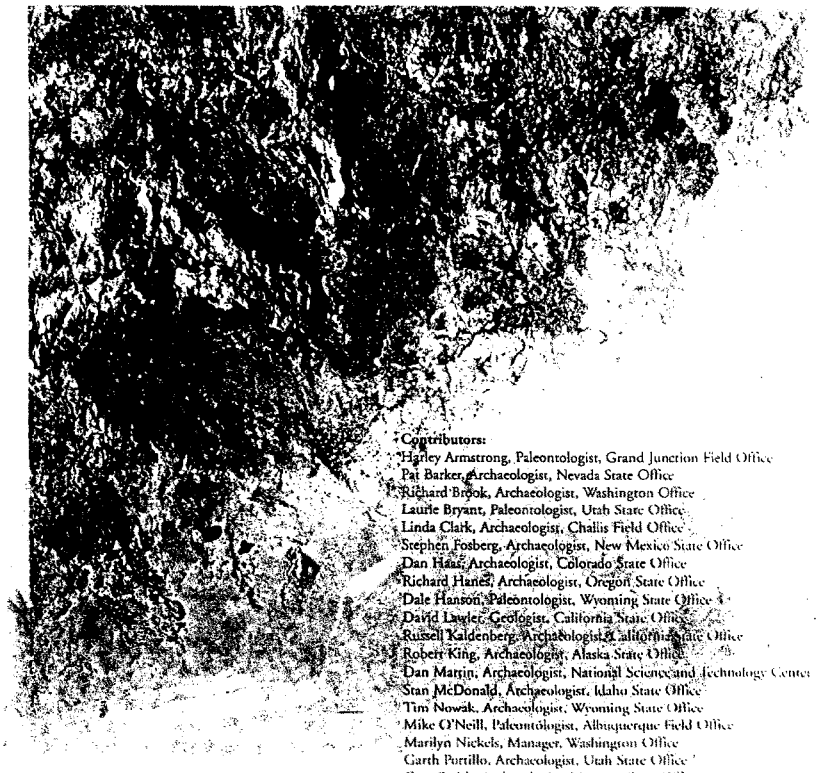
227. Electronic message dated June 28, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Re: Glamis"	Deliberative process, attorney work product
228. Electronic message dated August 9, 2001, from Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor, to Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor, entitled "Glamis answer"	Deliberative process, attorney work product
229. Electronic message dated December 11, 2001, from Laura Brown, Assistant Solicitor, Branch of Public Lands, Division of Land & Water, Office of the Solicitor, to Barbara Fugate, Attorney, Division of Mineral Resources, Office of the Solicitor; Karen Hawbecker, Attorney, Division of Mineral Resources, Office of the Solicitor; Dick Woodcock, Attorney, Division of Land and Water, Office of the Solicitor with copies to Peter Schaumberg, Deputy Associate Solicitor, Division of Mineral Resources, Office of the Solicitor; Paul Smyth, Deputy Associate Solicitor, Division of Land and Water, Office of the Solicitor, regarding Glamis litigation	Deliberative process, attorney work product

OUR VANISHING PAST:

The Crisis of Cultural and Paleontological Resources on BLM Lands

Cultural and Fossil Resources
and Tribal Coordination Group
Washington, DC

U.S. Department of the Interior
Bureau of Land Management
November 2001



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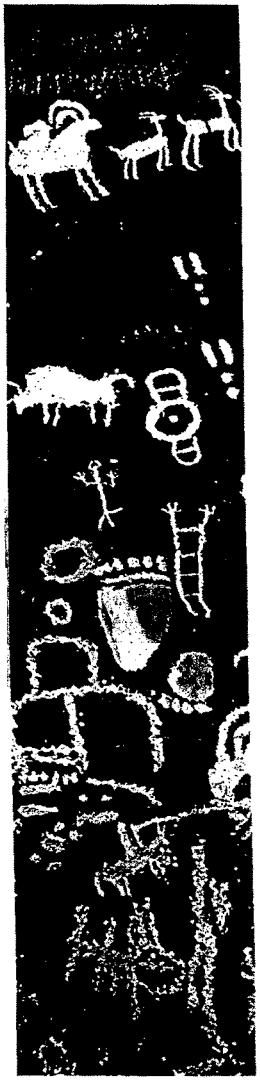
Preface:
An Invitation to the Reader

The Bureau of Land Management has responsibility for millions of our nation's cultural and paleontological resources. These resources are increasingly at risk. Intentional vandalism and destruction of archaeological and paleontological sites and thefts of artifacts and fossils harm and destroy resources that belong to us all. It is our job and our mission to preserve and protect these resources, but this is not a job we can do alone. We need your help.

So this document is an invitation to you—the public we serve—to begin a dialogue with us about the health and future of our collective past. Tell us what is important to you, what you care about, what you want saved, and how we can work together to preserve our precious national heritage.

Henri Bisson, Assistant Director
Renewable Resources and Planning
December 18, 2001



It is our job
and our mission
to preserve and
protect these
resources...

Executive Summary

The public lands managed by the Bureau of Land Management (BLM) are a grand, open-air museum that contains breathtaking and awesome cultural and paleontological remains. These remains include:

- defensive structures perched atop narrow escarpments;
- cliff dwellings set in desolate canyon walls;
- isolated arrowheads and spear points;
- mines and stamp mills located above timberline;
- immense ground figures and rock alignments etched in desert pavement;
- worn trails from bygone eras;
- abstract, realistic, and anthropomorphic renderings incised and painted on rock surfaces;
- abandoned military outposts and homesteads;
- eroding mammoth tusks;
- dinosaur tracks and nests;

and so much more!

These resources contribute to our understanding of the origins of life on Earth and civilization in North America. At the same time, they dazzle, delight, thrill, bewilder, and fascinate any person who comes upon them, whether that person is a curious tourist, an intrepid backcountry adventurer, an accidental visitor, an artist in search of inspiration, or an inquisitive scientist.

The fact is, these resources belong to all people for all time. However, the cultural and paleontological resources on BLM public lands, both those that are visible and those that are still unexposed, are seriously at risk. They are threatened by individuals who appropriate them for their personal enjoyment or profit, the unanticipated effects of legitimate recreational

activities, and unauthorized land uses that diminish the resource base. Additionally, the forces of nature are forever reshaping the landscape and eroding what, even to begin with, may never have been more than a one-in-a-million preservation occurrence. But nature and malicious and inadvertent actions are not the only threats to cultural and paleontological resources—the resources are also threatened by *inaction.* Many of these resources suffer from neglect that results from the failure or inability to allocate the funding necessary to stem resource deterioration or hire sufficient staff to manage the resources properly.

The management of cultural and paleontological resources on BLM public lands is overseen by the Washington Office's Cultural and Fossil Resources and Tribal Coordination Group, which reports to the Assistant Director for Renewable Resources and Planning. BLM earmarks funds for cultural resource management and other programs from the funding it receives through the Appropriations Act for the Department of the Interior and Related Agencies, under the title of Management of Lands and Resources. In fiscal year 2001, BLM's cultural resource management appropriation was $13.8 million. This appropriation was expected to fund numerous tasks, including:

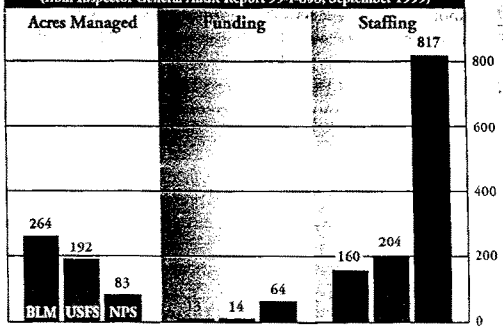
- protection, study, management, and stabilization of BLM's cultural and paleontological resources
- interpretation of these resources
- educational initiatives promoting the teaching of higher order thinking skills, science, math, and other required school subjects using cultural and paleontological resources
- protection and curation of museum collections recovered from on-the-ground investigations
- consultations with Indian tribes and Alaska Native corporations
- development of partnerships with non-Federal entities
- repatriation of museum collections subject to the provisions of the Native American Graves Protection and Repatriation Act

Clearly, BLM's cultural resource management appropriation was inadequate to fund all of the designated tasks.

Cultural heritage specialists in BLM are responsible for a staggering array of resources, including a projected 4 to 4.5 million archaeological and historical properties, thousands of paleontological localities, and millions of museum objects housed in 3 Federal and at least 190 non-Federal museums. These specialists also conduct numerous tribal consultations that result in hundreds, if not thousands, of contacts annually. In addition, BLM's cultural resource specialists fulfill National Historic Preservation Act responsibilities for approximately 8,000 land use actions, even though the appurtenant compliance costs are borne by applicants and not by BLM's cultural resource management appropriation.

Staffing levels for cultural resource management in BLM are well below those of other agencies with similar responsibilities (Figure 1). The U.S. Forest Service manages 27 percent fewer acres than BLM, but employs 28 percent more cultural heritage specialists. The National Park Service manages 69 percent fewer acres than BLM, but employs 414 percent more cultural heritage personnel. Even though BLM manages more acreage than either the U.S. Forest Service or the National Park Service, those agencies receive more funding and, consequently, can hire more staff to manage cultural resources.

Figure 1. Cultural Resource Program Data for Similar Agencies
(from Inspector General Audit Report 99-I-808, September 1999)



Excludes the National Park Service's Cultural Resources Applied Research, National Register, and Center for Applied Technology and Training Programs, as well as grants issued pursuant to the United States Code (25 U.S.C. 3001).

BLM continues to explore ways to address the crisis of cultural and paleontological resources on the public lands. Goals pertaining to the management and protection of these resources are included in the BLM "Strategic Plan." Additionally, each of the western BLM States has identified the cultural and paleontological resources in their areas of jurisdiction, as well as some specific threats to these resources. The States have also explored low- and moderate-cost solutions to address such threats. Among the low-cost measures being considered is the annual identification of BLM's 11 most endangered cultural heritage properties—one from each of these States. This measure would build on an existing assistance agreement between BLM's Cultural Heritage Program and the National Trust for Historic Preservation. Under this plan, each western BLM State Office would work with partner organizations and constituent groups to identify those heritage properties on BLM public lands that are most critically at risk. Not only would this approach highlight the most egregious examples of threatened heritage properties and focus public attention on them, but it would also encourage ownership on the part of the groups and individuals who participate in making the determination. This approach would truly bring home to the public the idea that the public lands and resources belong to them, and without their active participation, protection in perpetuity of our unique legacy cannot be assumed or assured.

The need to protect these precious resources is urgent—BLM does not have the luxury of leaving the preservation or restoration of a unique cultural or paleontological resource for another day. Immediate action is crucial, otherwise these resources, along with the clues they hold to the past, will vanish from the land, never to be replaced.

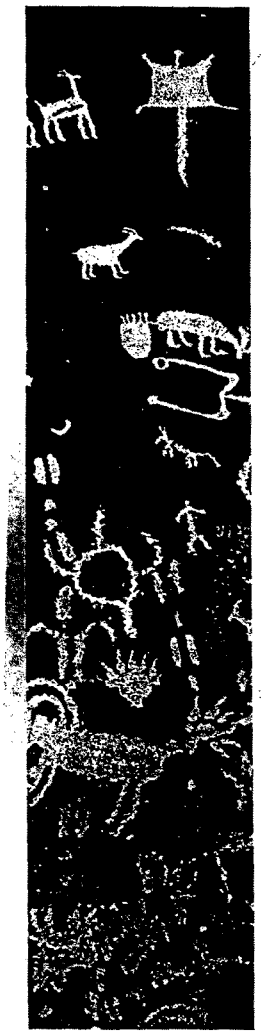
Introduction

The public lands administered by the Bureau of Land Management (BLM) contain a wealth of cultural and paleontological resources. These resources are important to our understanding of both recorded history and prehistory—the period of time before written history. However, these resources are increasingly at risk from human activities, the forces of nature, and neglect. In fact, the need to preserve these resources has reached the crisis stage. The purpose of this report is to highlight the wealth of the Nation's cultural and paleontological resources, to focus attention on the deepening crisis with regard to their preservation, to present what the BLM is doing to address this crisis, and to define what yet needs to be done if we are to preserve these resources and save our vanishing past.

Our Nations's Cultural and Paleontological Resources

The public lands are dotted with literally hundreds of thousands of archaeological and historic sites that document at least 13 millennia of human activity. These sites include everything from ancient Paleo-Indian mammoth kill sites to tantalizing oversized ground figures etched in desert pavements (intaglios), to awe-inspiring prehistoric complexes of Anasazi pueblos and cliff dwellings, to evocative and mysterious rock art, through intriguing Spanish and Russian period exploration, to lonely outposts of historic era exploration and settlement, to more recent historic sites documenting the trials of westward migration, mining, ranching, railroading, and even 20th century military activity. The physical manifestations of these and other time periods and cultures collectively are referred to as "cultural resources," and they represent a significant part of our Nation's cultural heritage.

The cultural resources on western public lands represent all major periods and events in the broad sweep of human occupation in the West, from prehistoric times up through the present era. These resources are of great interest to archaeologists because they tell the story of all kinds of people, representing nearly every cultural tradition and ethnicity present in American society. In general, these people include first Americans (ancient cultures and contemporary peoples) and immigrant Americans (explorers, miners, ranchers, homesteaders, soldiers, etc.).



Undamaged, BLM's cultural resources have the capability to tell us when people first arrived on the continent, how they dispersed, how cultures flourished, what led to their demise, how they perceived the spiritual world, how they interacted with other cultural groups, how they exploited and perhaps overexploited their environment, how they treated the dead, how and why they came into conflict, and much more.

While archaeologists study cultural resources, the study of fossils is the domain of paleontologists. Fossils are the remains, imprints, and traces of once-living organisms preserved in the Earth's crust that can relate the story of origins and endings played out over nearly 4 billion years of the Earth's 4.5-billion-year history. Fossils of thousands of kinds of plants, animals, and other organisms can be found on the public lands, including tiny trilobites more than 600 million years old, dinosaurs with razor-sharp teeth and claws between 210 and 65 million years old, and Ice-Age lions and cheetahs.

Fossils found on public lands are important for the story they can tell us about the development of life on Earth and about the physical changes in the Earth itself. They provide clues to a myriad of important and intriguing questions, from the "hot" topic of dinosaur extinctions to studies of plate tectonics (the geology of the Earth's structural deformation). Consequently, the public lands provide great outdoor laboratories and classrooms for the study of paleontology and also contribute significantly to public exhibits found in museums. For example, BLM's Cleveland-Lloyd Dinosaur Quarry in Utah has produced fossils that are exhibited in over 40 museums worldwide. Undamaged, BLM's fossil resources can reveal not only how plant and animal communities changed, but how the face of the Earth has been altered by the movement of continents, the uplift of mountain ranges, the appearance and disappearance of ice-caps, and the flooding and drying of huge areas of lands.

Why These Resources Are At Risk

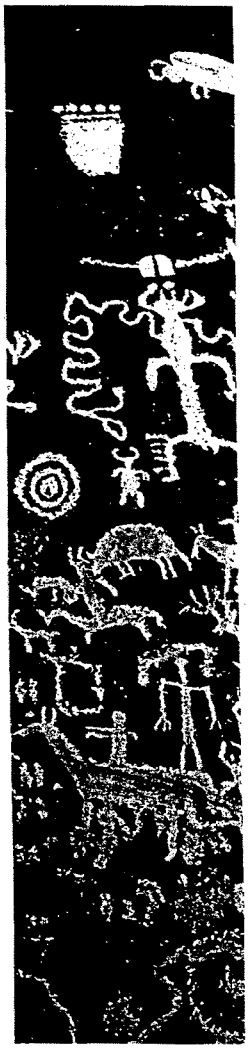
Cultural and paleontological resources are affected both by human agents and by natural processes:

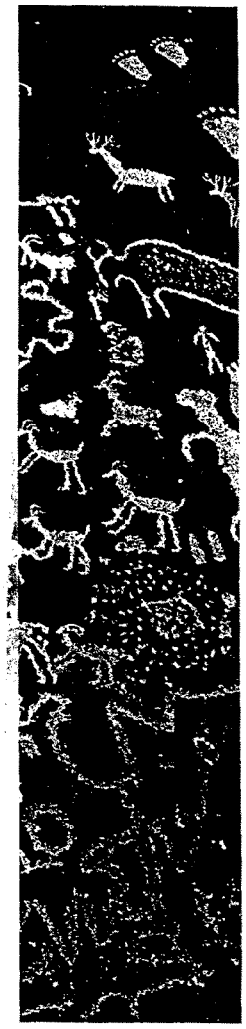
- **Theft and Looting:** Throughout the decades, the BLM public lands have been an easy target for thieves and

looters. Today, the plundering and destruction of cultural and paleontological treasures has become a highly lucrative business involving a network of looters, expert fences, and knowing buyers in the United States, Japan, Switzerland, Germany, and elsewhere. We know that some individuals involved in the looting of cultural remains also are involved in the theft of fossil resources. We know that some of these individuals are engaged in other illegal activities, such as dealing drugs. We know, too, that most artifacts and fossils segregated from the public lands are very difficult to track to their place of origin. And we know that as looted objects move further up the trafficking chain and wind up at such places as art galleries, auction houses, Internet sites, and even museums, their ownership, transfer, and sale is lent a veneer of legitimacy. Unlike in many other countries of the world, where cultural artifacts that lie below the ground belong to the State and individuals purchasing an "antique" must receive and produce a certificate of authority to prove their right of ownership, in this country, illegal possession must be proven by law enforcement authorities. And this is often difficult, if not impossible.

Clearly, sites and localities concealing commercially valuable artifacts and fossils are the primary targets of looters, although objective estimates of the extent of damage and destruction to such places are essentially nonexistent. Still, there are strong indications from across the public lands that, much like certain plant and animal species, there are certain archaeological and historic site types that are "extinct," others that are "endangered," and yet others that are "soon to be listed." Similarly, the theft hundreds of fossils from the public lands every year is destroying the contextual information critical for interpreting the fossils and reducing areas available for scientific study and public enjoyment.

- **Increasing Visitation and Authorized Uses:** Destruction and degradation of cultural and paleontological resources is not solely the result of theft and looting, however. Increasing visitation to the public lands is resulting in intentional and inadvertent damage to these resources from collection, vandalism, surface disturbance, and other depreciative behavior. Remote areas, once protected by their distance from populated





areas, are now within easy reach of the hardy and well-equipped hiker, off-highway vehicle user, and urban and suburban resident. Additionally, the cultural resources of the West and sites where dinosaur bones have been found are attracting visitors from all over the world to areas where they may negatively affect fragile resources simply by walking over them. Land use authorizations for rights-of-way, mining, public facilities, and other legitimate and necessary uses of the public lands are also continuing to increase.

Unfortunately, individuals who visit the public lands will sometimes appropriate cultural and paleontological resources for personal enjoyment. Even seemingly mundane cultural artifacts have been used in the decor of modern homes. One BLM archaeologist witnessed bathroom sinks formed from hundreds of prehistoric potsherds pieced together, metates for splash blocks below drain spouts, and glass containers of potsherds and arrowheads displayed on coffee tables. There are documented cases of prehistoric petroglyphs being sawed from panels on the public lands and incorporated into fireplaces or used to decorate the outsides of homes. This practice of using ancient artifacts in the decoration of private homes contributes to the loss of our common legacy from the past, and must change if we are to keep the past from becoming relegated to the mantlepiece of posterity.

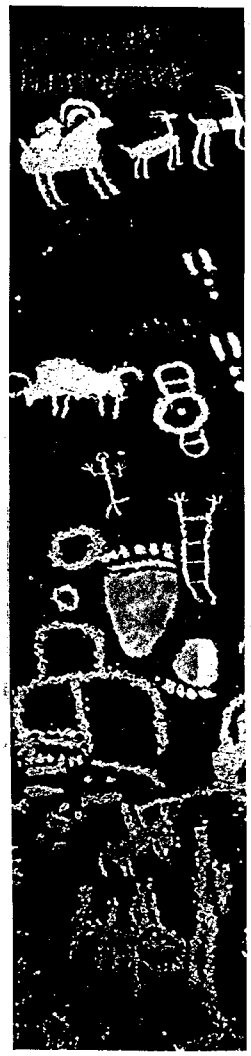
- **Forces of Nature:** Natural deterioration also plays a role in reducing resource diversity. Erosion, weathering, and arroyo cutting can all impact cultural and paleontological resources.

- **Neglect:** Cultural and paleontological resource management on BLM public lands must be accomplished within current staffing and funding limitations. However, current staffing and funding levels are inadequate to handle the sheer volume of these resources. Unfortunately, the result is that some properties may suffer from neglect and deteriorate.

BLM cultural heritage specialists are responsible for a projected 4 to 4.5 million cultural properties, thousands of paleontological sites, and millions of objects housed

in nearly 200 museums. Each year the specialists in each western BLM State inventory thousands of acres of public lands and record hundreds of cultural properties. They also fulfill the requirements of Section 106 and Section 110 of the National Historic Preservation Act for about 8,000 land use actions. Section 106 requires Federal agencies to consider the effects of their undertakings on cultural properties eligible for or included in the National Register of Historic Places and to afford the Advisory Council on Historic Preservation an opportunity to comment. Section 110 requires Federal agencies to identify and protect historic properties and avoid unnecessary damage to them, and to consider projects and programs that further the purpose of the Act. These responsibilities result in hundreds, if not thousands, of contacts and consultations throughout the year. The workload for these specialists is overwhelming.

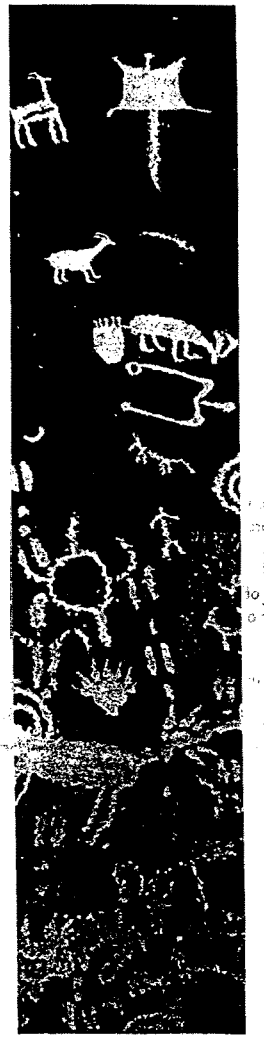
Compounding this problem is the level at which cultural resource management is funded in BLM. The Office of Inspector General noted in a 1999 program evaluation that the BLM controls approximately 27 percent more land than the U.S. Forest Service, yet has 28 percent fewer cultural heritage specialists, while the National Park Service manages less than one-third the acreage of BLM, but employs more than five times the number of cultural resource personnel.



Regardless of the cause of damage to these resources, the result is the same—they are being lost in no less of a dramatic fashion than a rare illustrated manuscript having its pages torn apart and tossed into a fire, extinguishing the compelling story it can tell us for all time.

How BLM is Addressing the Crisis

BLM is addressing the urgent need to preserve cultural and paleontological resources on public lands in numerous ways. Several goals related to the management and protection of these resources have been incorporated into the BLM "Strategic Plan." These goals are intended to highlight and address the crisis status of these resources resulting from years of neglect, abuse, substandard funding, unfettered access, and worse. BLM is also



entering into partnerships to help alleviate the workload and the financial burden associated with caring for the cultural and paleontological resources on public lands. In addition, BLM is trying to educate the public about the importance of preserving these precious resources by interpreting many cultural and paleontological sites and supporting existing school curriculums through the Heritage Education Program and Project Archaeology.

What More Needs to Be Done

Though BLM is doing what it can to preserve cultural and paleontological resources, additional action must be taken. In 1999, Congress asked the Secretary of the Interior to review Federal policy concerning fossils, a task that involved the Bureau of Land Management, Bureau of Reclamation, Bureau of Indian Affairs, Fish and Wildlife Service, National Park Service, U.S. Geological Survey, U.S. Forest Service, and Smithsonian Institution. The agencies concluded that fossils on Federal lands often needlessly deteriorate or disappear through theft, vandalism, and other causes, and that the problem is exacerbated by lack of personnel and resources for assessment, management, and protection. The Secretary's report, "Fossils on Federal and Indian Lands" (May 2000), recommended that renewed Congressional attention could significantly advance Federal policy on fossils, and that Congress should consider the merits of action on a framework for fossils analogous to the Archaeological Resources Protection Act, including the need for stiffer penalties for those who damage and steal certain fossils.

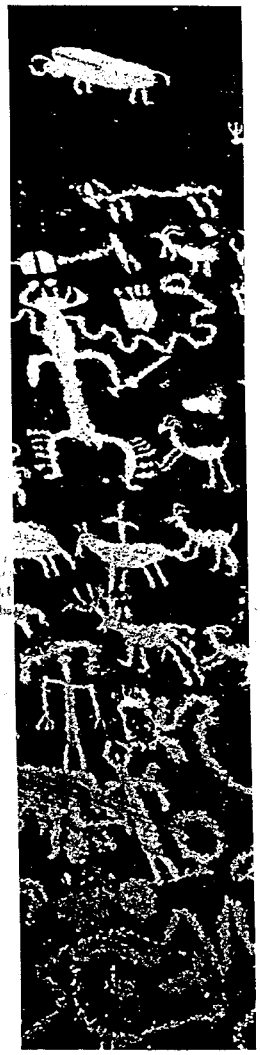
In March 2001, the Advisory Council on Historic Preservation issued the report, "Caring for the Past, Managing for the Future: Federal Stewardship and America's Historic Legacy," which points to the wealth of historic resources managed by the Federal Government, describes both the successes and failures in their preservation, and recommends specific measures to correct many of the problems. Among other things, the report recommends legislation to encourage, rather than impede, public-private partnerships through more widespread creation and use of "friends" organizations that can work with Federal managers in support of private fundraising and other activities, and better funding and staff support for Federal historic preservation activities.

Americans share in this unique natural legacy preserved on our public lands. We are enriched by its collective ownership and impoverished in many ways by its loss. The recommendations in the reports mentioned above, as well as the recommendations at the end of this report, are important to the preservation of the cultural and paleontological resources on BLM public lands, and it is critical that we take action now. To the extent that our cultural and natural heritage is an expression of our identity as a Nation and as a people, the loss of these resources is something that affects us all.

To the extent that our cultural and natural heritage is an expression of our identity as a Nation and as a people, the loss of these resources is something that affects us all.

BLM's cultural resources represent all major periods and events in the broad sweep of human history in the West.

General Cultural Timeline for the Western U.S.



BLM's cultural resources represent all major periods and events in the broad sweep of human history in the West. From the expansion of people across the continent around 13,000 years ago to the cold war just ended, BLM sites tell the stories of people who have lived on this land.

The archaeological record holds precious information about the Paleo-Indians who populated North America at the end of the Ice Ages. These people hunted throughout the continent, leaving occasional traces of their passing at sites such as the Mill Iron site in Montana, the Dietz site in Oregon, and the Mesa site in Alaska.

The Paleo-Indian way of life gave way to the Archaic tradition by about 7,500 years ago. Hunters and gatherers adapted to changing environments, giving rise to many distinctive cultural patterns throughout the West and through time. In the Far West, Northwest, and Great Basin, different variations of the Archaic tradition continued until Europeans were encountered. Thousands of BLM archaeological sites tell the story of this long period of human history.

In other parts of the West, including portions of the Southwest and Great Plains, people adopted agriculture to supplement hunting and gathering. By about 2,000 years ago, the Anasazi and Mogollon in Arizona and New Mexico, for example, lived in villages, grew corn and other crops, and engaged in long-distance trade. The Pueblo peoples of the area are descended from these early farmers, and the areas where they settled are some of the most remarkable archaeological sites in the country.

Contact with Europeans during and after the 16th century A.D. brought disease, warfare, and significant cultural change. The adoption of the horse by Plains people, for example, led to the development of a highly mobile hunting and raiding way of life, very different from what came before. Disease ravaged native populations, weakening their resistance to the great tide of change coming across the continent.

Cultural Timeline—Before European Contact

Event	Time
Earliest settlers enter North America	11000+ B.C.
Paleo-Indian hunters populate the continent	9500 B.C.
Archaic way of life begins; diverse hunting-gathering cultures develop, lasting until contact with Europe and in parts of the West	6000 B. C.
Bow and arrow come into use	0 B.C.
Farming appears among the people of the Southwest	100 B.C.
Anasazi construct cliff-house communities and apartmentlike complexes of 1,000 rooms or more, which are abandoned by A.D. 1300	A.D. 1000
Expansion of Numic-speaking peoples in the Great Basin	A.D. 1100
Migration of Athabascan-speaking peoples from the north into the Pacific Northwest and Southwest	A.D. 1100-1400
Contact with Europe; Columbus arrives in the Western Hemisphere	A.D. 1492

Cultural Timeline—After European Contact

Event	Time
Francisco Vasquez de Coronado leads Spanish invasion of the Southwest	A.D. 1540
European diseases decimate Native people's communities	A.D. 1600-1900
Horses transform Native American cultures, enabling tribes to hunt buffalo more effectively and to range farther	A.D. 1650
Russia discovers Alaska	A.D. 1741
United States declares independence	A.D. 1776
Lewis and Clark's expedition	A.D. 1804-06
Companies vie to monopolize fur trade	late 18th century
Indian Removal Act passed; eastern tribes removed to the West	A.D. 1830
Joseph Smith publishes Book of Mormon, leading to eventual Mormon settlement in Utah	A.D. 1830
Westward expansion along Oregon Trail begins	A.D. 1843
California gold rush begins after discovery of gold at Sutter's Mill	A.D. 1848
20,000 Chinese arrive in California in search of gold	A.D. 1852
Coast-to-coast telegraph completed	A.D. 1861
Civil War begins	A.D. 1861
Homestead Act passed allowing claims of up to 160 acres of public lands	A.D. 1862
Indian wars	mid to late 19th century
First cattle trail blazed from Texas to New Mexico	A.D. 1866
Transcontinental railroad completed	A.D. 1869
General Mining Law enacted	A.D. 1872
Custer's last stand at the Battle of the Little Bighorn	A.D. 1876
Geronimo surrenders after more than a decade of guerrilla warfare	A.D. 1886
Forest Service established	A.D. 1905
National Park Service established	A.D. 1916
Bureau of Land Management established	A.D. 1946
Urban expansion, increased recreational use of western lands	A.D. 2000

Exploration and trade drove the initial European forays into the West as early as the Spanish incursion into the Southwest in the 1540s and the Russian claim to parts of Alaska after 1741. By the end of the 1700s and early 1800s, various nations—Spanish, French, English, Russian, and American—competed to have and to hold the vast lands and resources of the West. The Lewis and Clark Expedition in the early 19th century marked the beginning of America's relentless overland push westward and the claiming of lands through purchase, negotiation, and conquest.

As the Indian wars of the late 19th century forced many native peoples onto reservations, new immigrants came to settle the land. The lure of gold and free land drew many to the West, where Americans mingled with others to form new rural communities. Farming, ranching, logging, and mining supported local peoples, with communities linked to distant urban and industrial centers through such trails as the Camino Real de Tierra Adentro, the Oregon Trail, the Pony Express, and Butterfield Stage route. BLM's many archaeological sites tell the stories of these early western communities.

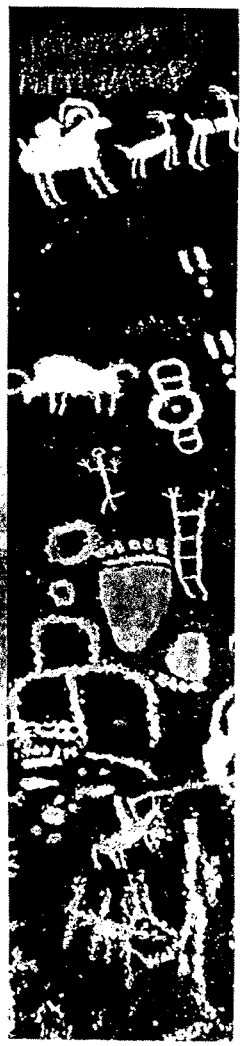
The 20th century brought further changes to the West. The Federal Government left its own legacy upon the land with the establishment of the National Forests, National Parks, and in 1946, the Bureau of Land Management. Native peoples, many from reservations, have continued to use Federal lands for both ~~sacred and secular purposes~~. The American military trained for the two World Wars and the cold war on vast stretches of the public lands. Today, increasing populations and urbanization are driving higher demand for recreational uses of these western lands.

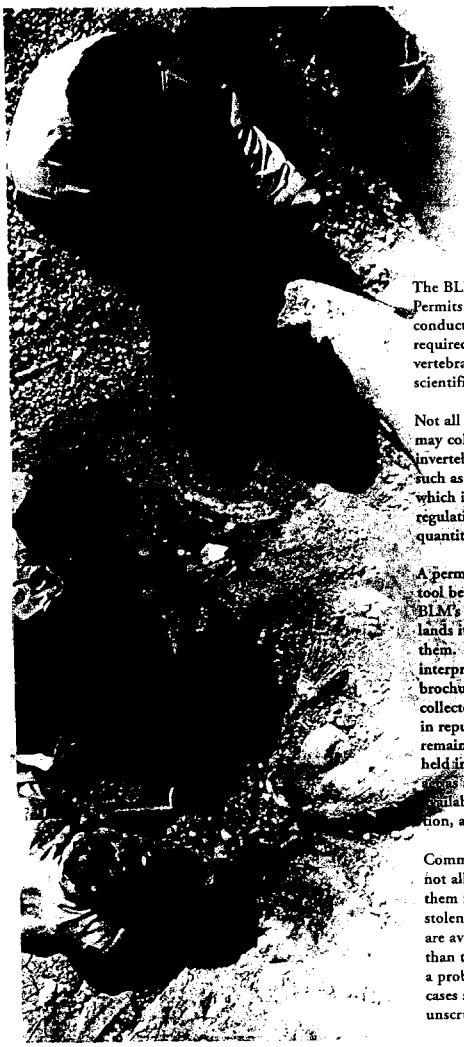
Indian groups today remain vitally concerned with their history and culture, as do many descendants of the early historic communities in the West. The traditional cultural knowledge of these living groups provides valuable insights into past ways of life. Yet the history of the American West is still only partly told. Large questions remain: What was life like for the earliest people on this continent? What effect did major technological innovations—such as the bow and arrow, irrigation, and agriculture—have on the Indian history of this continent? How did the many different native peoples relate to one another and the land on which they lived? What effect did European epidemic diseases have on American Indian societies? ~~What was life~~ like ~~in the West for those—mainly minorities and women—whose~~

voices are rarely heard in traditional American histories? How did historic Euro-American land use patterns affect the ecology of the region today?

The thousands of archaeological sites on BLM lands, as well as the elders in traditional communities, can provide answers to these and other important questions. BLM has a strong obligation to manage and protect those places on the lands that contain a significant part of this Nation's cultural heritage for current and future generations of Americans.

Today, increasing populations and urbanization are driving higher demand for recreational uses of these western lands.





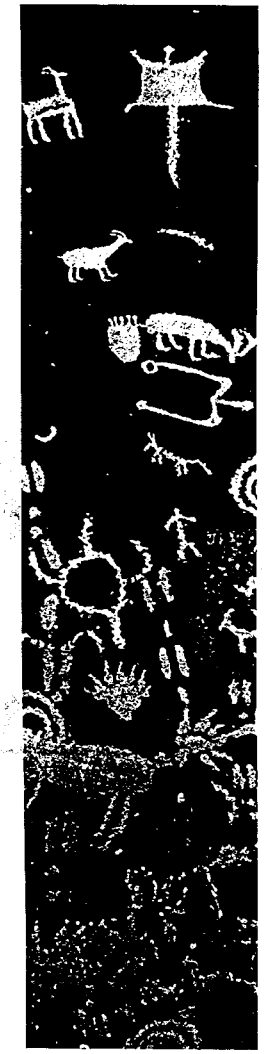
The BLM issues Paleontological Resource Use Permits to qualified scientists who want to conduct scientific investigations. Permits are required for virtually any activity involving fossil vertebrates, as well as for work that focuses on scientifically significant invertebrates or plants.

Not all fossil collecting requires a permit. Anyone may collect reasonable amounts of common invertebrates and plants for noncommercial use, such as for a personal collection. Petrified wood, which is treated as a mineral material in the regulations, may also be collected in limited quantities.

A permit serves primarily as a communication tool between researchers and the BLM, increasing BLM's understanding of the important fossils on lands it administers and its ability to care for them. This information is also used in creating interpretive materials for the public, such as signs, brochures, and museum displays. Specimens collected through the permit process must be kept in reputable museums and universities, where they remain the property of the Federal Government, held in trust for the American people. Museums act as stewards for these resources, making them available in perpetuity for ongoing study, education, and enjoyment.

Commercial use of fossils from public lands is not allowed. The sale or barter of fossils removes them from the public trust. If specimens are stolen from public lands and sold for profit, they are available to only a few individuals rather than to the public as a whole. Theft of fossils is a problem of unknown scale, but documented cases show that commercial dealers, as well as unscrupulous private collectors, are involved.

Geologic Time Scale



The geologic time scale is a method of dividing Earth's history. Initially, it was used to mark differences between fossils to divide thick sequences of strata into related groups, formations, and beds. Later, a classification of these formations of strata and larger units was produced. At the time, the sequence included only deposits from the last three eras of Earth's history.

This organization of rocks resulted in the development of the geologic time scale. The time scale is made up of three kinds of geological units:

- Rock units describe the physical characteristics of the rocks themselves.

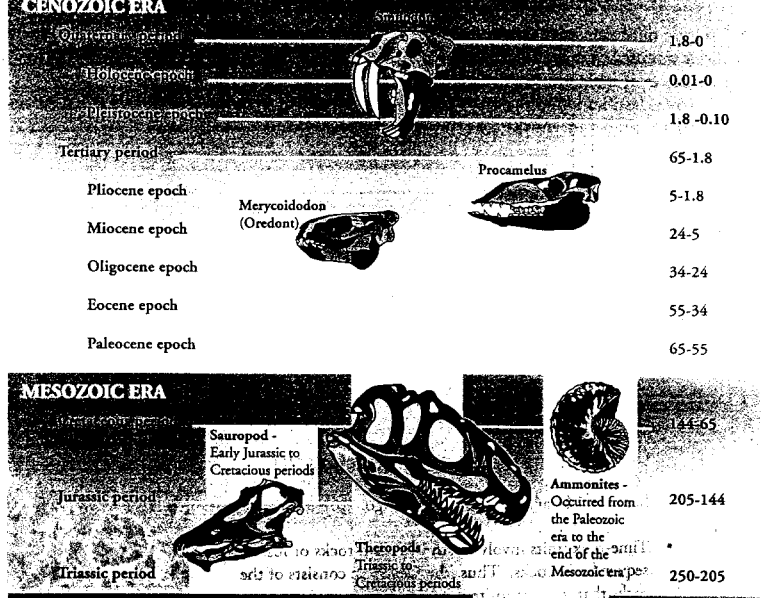
- Time units refer only to the passage of time. For example, the Cenozoic era is all of the time between 65 million years ago and today. Eras are divided into periods or systems, and further into epochs and ages. The Cretaceous period, for example, is a division of the Mesozoic era preceding the Cenozoic, and is the time between 144 and 65 million years ago.

- Time-rock units involve both time and rocks or fossil sequences in rocks. Thus, the Cenozoic consists of the rocks that were deposited during the Cenozoic era and the fossils that define its boundaries. Although fossils themselves cannot give an age in years, the order of the appearance or disappearance of various fossils in layers of rock provides the basis for the geologic time scale we use today.

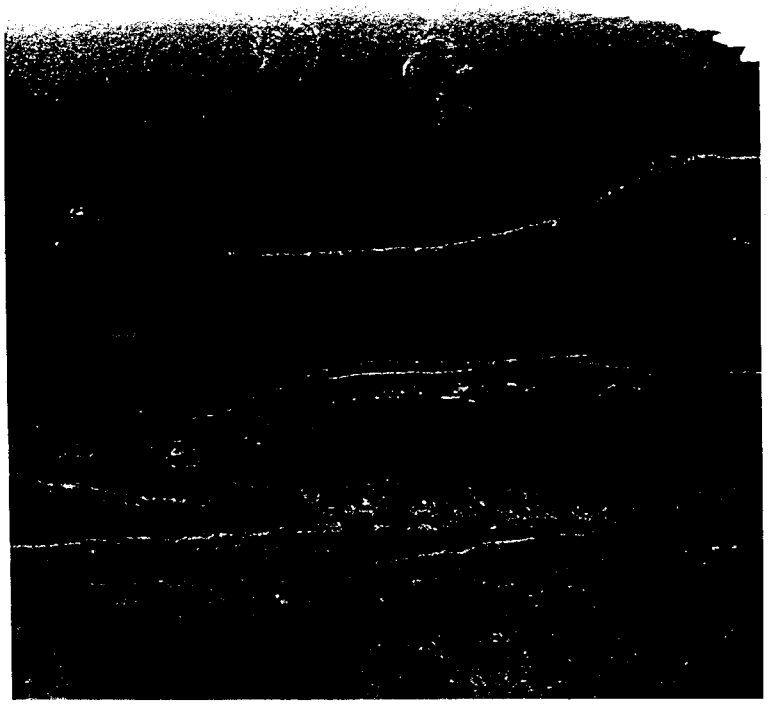
Generally speaking, fossils from all fossil-bearing geologic time periods in this country are represented on public lands managed by BLM.

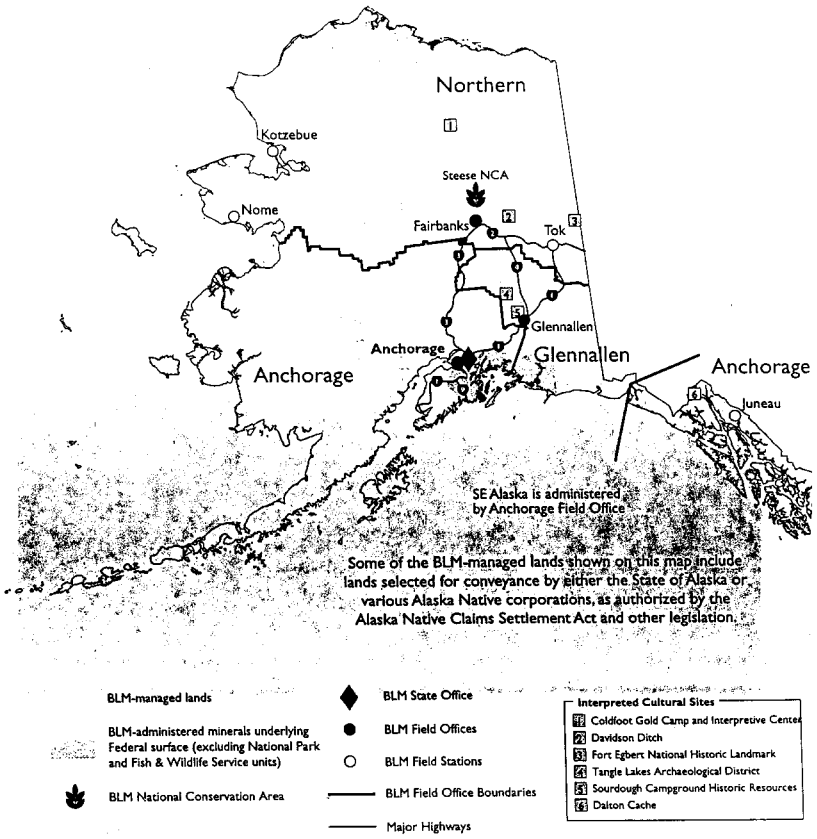
Geologic Time Scale

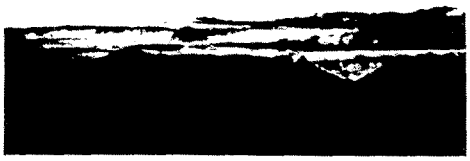
Era/Period/Epoch	Time (million years ago)
CENOZOIC ERA	
Quaternary period	1.8-0
Holocene epoch	0.01-0
Pleistocene epoch	1.8 -0.10
Tertiary period	65-1.8
Pliocene epoch	5-1.8
Miocene epoch	24-5
Oligocene epoch	34-24
Eocene epoch	55-34
Paleocene epoch	65-55
MESOZOIC ERA	
Cretaceous period	144-65
Jurassic period	205-144
Triassic period	250-205
PALEOZOIC ERA	
Permian period	290-250
Carboniferous	354-290
Mississippian (Pennsylvanian) period	
Devonian period	417-354
Silurian period	443-417
Ordovician period	490-443
Cambrian period	545-490
PRECAMBRIAN TIME	
Proterozoic eon	1,500-545
Archaeozoic (Archean) eon	5,000-1,500



State-by-State Presentations




Northern
Kotzebue
Steese NCA
Nome
Fairbanks
Tok
Glennallen
Anchorage
Glennallen
Anchorage
Juneau
SE Alaska is administered by Anchorage Field Office
Some of the BLM-managed lands shown on this map include lands selected for conveyance by either the State of Alaska or various Alaska Native corporations, as authorized by the Alaska Native Claims Settlement Act and other legislation.
BLM-managed lands
BLM-administered minerals underlying Federal surface (excluding National Park and Fish & Wildlife Service units)
BLM National Conservation Area
BLM State Office
BLM Field Offices
BLM Field Stations
BLM Field Office Boundaries
Major Highways
Interpreted Cultural Sites
1 Coldfoot Gold Camp and Interpretive Center
2 Davidson Ditch
3 Fort Egbert National Historic Landmark
4 Tangle Lakes Archaeological District
5 Sourdough Campground Historic Resources
6 Dalton Cache



ALASKA

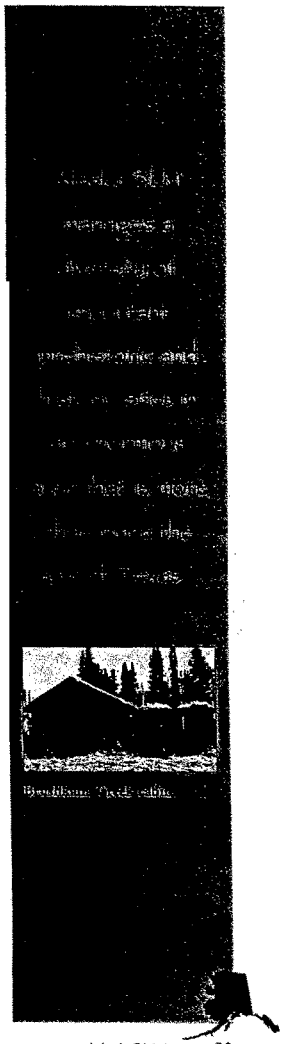
Statistical Overview

Acres of public land	87.3 million acres
Acres inventoried for cultural properties (FY 2000)	3,257 acres
Acres inventoried for cultural resources (to date)	84,527 acres
Cultural properties recorded (FY 2000)	70 properties
Cultural properties recorded (to date)	2,739 properties
Cultural Resource Use Permits in effect (FY 2000)	1 permit
National Register of Historic Places listings (to date)	19 listings
National Register of Historic Places contributing properties	519 properties
Section 106 class III undertakings (FY 2000)	46 undertakings
Section 106 data recovery, projects (FY 2000)	0 projects
Section 106 data recovery, properties (FY 2000)	0 properties
Interpreted places	6 places

Cultural Resources

1. Program Summary

Alaska BLM manages a diversity of important prehistoric and historic archaeological sites in an enormous area that is more than twice the size of Texas, but that has fewer roads than any other State. These characteristics, along with short summer seasons, make both finding and managing many of these resources logistically difficult and expensive. Consequently,



relatively little survey work has been done on lands managed by the BLM. Known sites contain some of the oldest evidence of human habitation in the New World, which date back at least 13,000 years, as well as more recent traces, which date to the mid-20th century. These diverse properties include Paleo-Indian sites, early coastal Eskimo and interior Athabascan sites, historic gold camps, the Iditarod National Historic Trail, and World War II and cold war military sites.

More than 84,000 acres of Alaska public land have been inventoried for cultural resources and over 2,700 properties have been recorded. Much of this work has been done in response to resource development activities, such as oil and gas or mineral extraction projects. Archaeological work related to expanding recreational opportunities has also resulted in the discovery of many sites.

Nineteen individual properties and districts are listed on the National Register of Historic Places. Of these, Fort Egbert, a National Historic Landmark, has been selected for funding under the Save America's Treasures program. Six cultural properties have been interpreted and developed for public visitation, including the Tangle Lakes Archaeological District, which is among the largest National Register properties in the Nation. Here over 500 archaeological sites, which span 10,000 years and surround a once-elevated, Ice-Age glacial lake system, are a testimony of the unique uses of this region.

Discoveries in Alaska have revolutionized our understanding of the past not only in Alaska, but also in the rest of the New World. At BLM's Mesa site, the first well-documented Paleo-Indian site in Alaska, archaeologists have conducted research to understand its meaning, including its surprising similarity to certain Paleo-Indian sites in the contiguous United States. With Alaska being an ancient portal for populations entering North America, interest in Early Man studies continues, as does research on a variety of other issues, including subsistence studies involving Arctic and Subarctic marine resources.

2. State Cultural History

Alaska is a gateway for human entry into the New World from Asia, with known archaeological sites dating back at least 13,000 years. By about 8000 B.C., as our modern climate was emerging at the end of the ice age, there may have been two or more different cultural groups of early "Paleo-Arctic" people living in

Alaska (Paleo-Indians and Nenana/Denali Complex peoples). By about 7000–8000 B.C., the ancestors of today's Aleut people were present on the Aleutians. They were followed some time later by their fairly close relatives, the Eskimo, in coastal areas of the mainland.

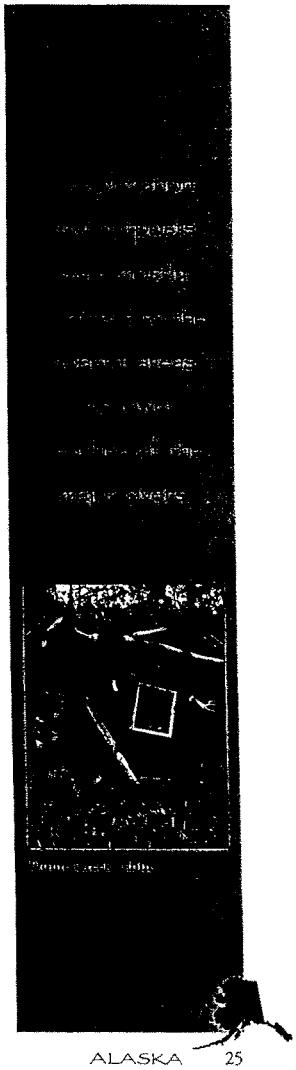
The earlier Alaskans were primarily nomadic hunters and gatherers, with many using distinctive tools made from microblades. By about 5000 B.C., the pervasive use of these tools gave way to more regional styles and generally larger stone tools. These tool changes may reflect people's adaptations to new environments as the grasslands in large parts of Alaska became boreal forests.

While some Eskimo today say they have occupied the Arctic for 10,000 years, archaeology generally links the origin of the Eskimo in Alaska to the appearance of the Arctic Small Tool tradition in western Alaska around 2000–3000 B.C. The Arctic Small Tool tradition quickly spread northeastward across the Arctic region of Canada to Greenland. The Eskimo people had well-developed technology for harvesting sea mammals and apparently occupied an otherwise unutilized environmental niche.

After about 2000 B.C., the archaeological record becomes even more complicated as innovations in housing types, tools, artistic styles, and burial patterns developed throughout the State. Regional variations become relatively distinct and lead to the artifacts and cultural patterns characteristic of Alaska Native groups at the time of first contact with Europeans.

This first contact occurred with Russia's "discovery" of Alaska in 1741. Prior to the sale of Alaska (Russian America) to the United States in 1867, Russian exploration and outposts were mostly confined to the coastal areas and lower reaches of the major rivers. This pattern mostly continued until the gold discoveries of the late 19th century, including the gold rushes to the Juneau area in 1880, the Fortymile country in 1886, and the Klondike in 1897–98.

Other gold, and later copper, discoveries brought not only miners to the future State, but also military and business people and their families. Early 20th century development of coal resources in south-central Alaska led to a government-financed railroad from Seward to Fairbanks and, with that, Anchorage was born. Other government needs in the 1930s–1950s, including various World War II military installations and cold



war facilities placed strategically throughout many parts of the State, also brought major changes. Presently, the population of Alaska is nearing 700,000, with oil and mineral development, fishing, tourism, government employment, and various service industries being the State's major industries and employers.

As of January 2001, there were 229 recognized Alaska Native tribes. While Anchorage has the largest Native populations in a single locality, most Alaska Natives live in small villages in areas not connected by roads.

3. Cultural Resources At Risk

Literally hundreds of historic structures, including historic sites related to mining, trapping, reindeer herding, and other activities, are located on BLM-managed lands in Alaska. These sites, except in unusual circumstances, are constantly being lost to natural processes.

Numerous prehistoric sites also suffer from natural deterioration and erosion. An example is the late prehistoric site of Kuluvachak (CAN-00025) on the Buckland River. This site was discovered in 1978 because erosion of the riverbank exposed artifacts and charcoal-stained soil. Surface indications suggest that no more than one structure remains from what was a 19th century settlement of some size and importance, and although the site appears to have been stable over the last 20 years, another incident of bank erosion will probably be sufficient to completely eliminate what remains of the site.

The remoteness of many BLM sites seems to protect them from vandalism, but damage to an increasing number of sites has been found in areas accessible only by boat or air. Regularly monitoring such areas, let alone catching vandals in action, is very difficult and expensive.

4. Major Accomplishments

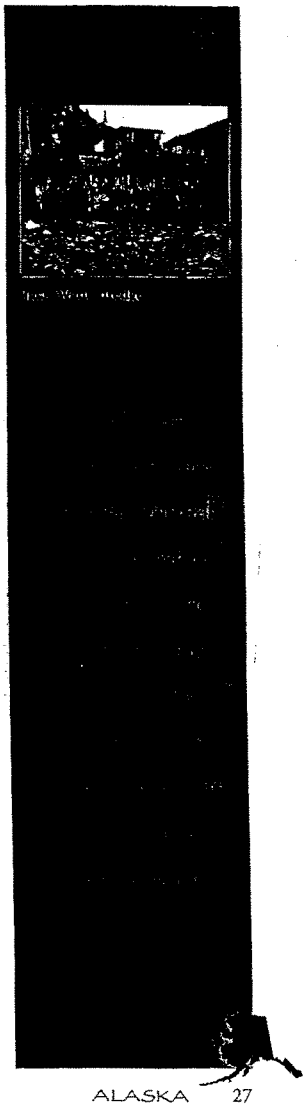
- Completed fieldwork for multiyear Mesa Site Project (Paleo-Indian site above Arctic Circle)
- Coordinated multiagency management of the Iditarod National Historic Trail
- Coordinated Save America's Treasures 1999 grant for restoration of Fort Egbert and restoration of the Dalton Cache (1895 pre-Klondike gold rush outpost)

- Continued multiyear project with the University of Alaska, Fairbanks, for research on early gold camps of northern Alaska
- Helped coordinate Project Archaeology in Alaska with the State Historic Preservation Office and completed research and installation of interpretive panels on early 20th century Sourdough Campground
- Completed a 2-year inventory project in the Tangle Lakes Archaeological District locating and documenting sites and unauthorized trails
- Completed inventory of BLM archaeological collections at the University of Alaska Museum
- Provided archaeological information to various groups upon request, including at schools and outdoor week events in Anchorage and Fairbanks

5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

Alaska is unique in that it is home to three different Native American groups: Eskimo, Aleuts, and Indians. In 1969, under special Alaska-only Native claims land settlement legislation, 44 million acres were designated to become jointly owned by Alaska Natives as shareholders in 226 village and 12 regional corporations instead of being awarded as individual allotments or reservation lands. BLM's prehistoric cultural resources have potential importance to the majority of these Natives and Native corporations.

Alaska's cultural resources are also important to many local Alaskans, especially to those for whom they provide some economic advantage, such as lodge operators. The historic resources in the Iditarod-Flat area help provide local miners with a sense of their historic identity as miners continuing a tradition begun with the early 20th century gold strike in the area. Gold rush resources, like the ghost town of Coldfoot, are of educational and scientific benefit to the students and staff of the University of Alaska, who use them for a field school. The Mesa site has been of scientific interest to many scholars worldwide, as well as a source of pride to some Alaskans. Interpretive displays for early 20th century historic remains in the Sourdough Campground also serve to further educate



tourists and local visitors about the fascinating past of that area, including early 20th century Native settlement patterns.

6. Existing Partnerships

- Doyon, Ltd.; State of Alaska; Trailblazers; and various Federal agencies such as the U.S. Forest Service and the National Park Service for management of the Iditarod National Historic Trail.
- General Services Administration for restoration and interpretation work at the Dalton Cache.
- Alaska Museum of Natural History, Eagle River, for paleontology work.
- Alaska Chamber of Commerce, U.S. Air Force, Anchorage Economic Development Corporation, Anchorage Historic Properties, Chugach State Park Advisory Board, Anchorage Assembly, Alaska Railroad Anchorage Convention and Visitors Bureau, Friends c Chugach State Park, and the Alaska State Historic Preservation Office for the Nike Site Summit Task Fo State of Alaska.
- Sitka Tribe, Orthodox Church at Sitka, and City of S for management of the Sitka Russian Blockhouse anc Cemetery.
- Ahtna, Inc. (for cooperative work on Alphabet Hills Burn); Inupiat Heritage Center in Barrow, Alaska; S: Paneak Memorial Museum in Anaktuvuk Pass; Ilisag College in Barrow, Alaska; Inupiat History, Languag and Culture Commission in Barrow, Alaska; Eagle Historic Society and Museum in Eagle, Alaska.

7. Economic Benefits

Alaska has only a handful of accessible and interpreted cult properties capable of generating money for local economie Fort Egbert National Historic Landmark, located at the re gold rush town of Eagle, Alaska, draws about 3,000 visitor annually; these visitors spend an estimated $100,000 for v. goods and services. Another area that draws visitors for its and recreational values, including its archaeological resour the Tangle Lakes Archaeological District; these visitors pro add $10,000 to the local economy.

Paleontological Resources

Program Summary

Alaska issues one or two Paleontological Resource Use Permits annually. Many factors conspire to limit the amount of paleontological fieldwork done in Alaska, including the duration of winter, difficulty in traveling, long distances involved, expensive logistics, and inhospitable conditions, even during the summer, in some areas.

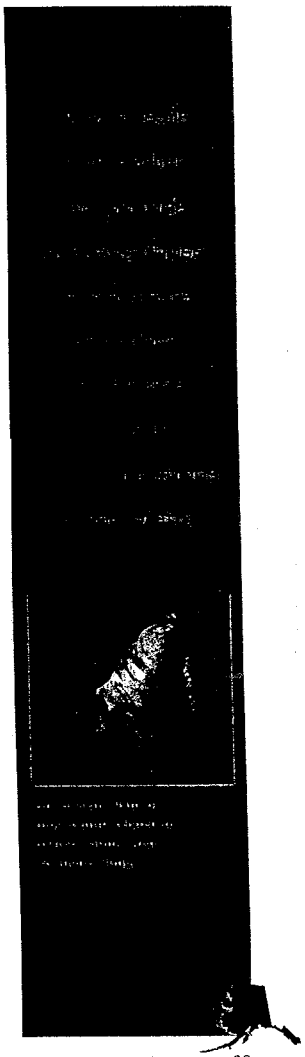
There are no specific formal designations for paleontological resources, but there is a special study area, the Bering Glacier. It is 80 miles from the nearest habitation and is the largest glacier in Alaska. It is melting back and has recently exposed an ancient buried forest of Sitka spruce sitting on 4,000-year-old peat. Uncrushed bivalves have been exposed and are dated at 3,000–7,000 years old. Plant ecologists are finding living plants that are otherwise unknown in the region, thus extending their known distribution. Many fossils from earlier time periods, including those of dinosaurs and other vertebrates, occur in various locations in the State.

2. State Paleontological History

Alaska, unlike most of North America, is believed to be made up of huge blocks of continental rock, called terranes, that moved across the oceanic plates from various origins. The State's fractured history thus includes not only chapters on the native flora and fauna, but also information on drifting continents, changing climates, and plants and animals that lived hundreds or thousands of miles from the localities where they are found today. Some of the terranes probably drifted northwest from central and northern California; others may have come from eastern Asia.

Given the peculiar geologic history of Alaska, its paleontological history is not easily summarized. There is evidence that most of the terranes are dominated by marine rocks, with their faunas consisting of trilobites, ammonites, and graptolites. Even scattered occurrences of Cretaceous dinosaurs and other vertebrates in south-central Alaska are in marine rocks, although they were deposited close to shore.

Along the Colville River in northern Alaska, more than 6,000 dinosaur bones and teeth from 12 different species have been collected and curated in the University of Alaska Museum. Many



represent juvenile animals and are critical to our understanding dinosaur development, biogeography, and theories of dinosaur extinction. Associated fish, mammal, and plant fossils help to round out our understanding of the community as a whole.

Marine mollusks of Cretaceous and Paleocene age are being used to document changes in the position of the Arctic Ocean shoreline and its connection to the Western Interior Seaway th extended all the way to the Gulf of Mexico.

Remains of Pleistocene mammals such as bison, horses, camels mammoths, and carnivores, including an American lion (*Felis atrox*), have been found in river gravels and lake sediments. Such Pleistocene remains are found sporadically on BLM mini claims in northern and central Alaska.

3. Paleontological Resources At Risk

Alaskan fossil resources are protected to some extent by their remote locations and the State's harsh environment, both of whi can make access difficult. Most fossils are accessible only along major rivers and highways. However, such fossils as Pleistocene vertebrates commonly occur in river gravels and may be at risk not only from mining operations, but also from unauthorized collecting. Because good exposures of fossils occur along some navigable rivers, these resources are especially vulnerable to increased use. This is particularly true of paleontological resourc in the lower Colville and Ikpikpuk Rivers, which are increasingl used for transport or recreation. Escalating prices offered by private collectors, combined with the relative abundance of fossi in Alaska, will place even more paleontological resources at risk from unauthorized collection in the future.

4. Major Accomplishments

- Discovered (1984 through 1999) 12 types of late Cretaceous dinosaurs on the North Slope, in the Colvi and Awuna River drainages, and published a pamphlet for the public.
- Discovered mid-Cretaceous fish fauna and the first Mesozoic mammal in Alaska in the Colville River drainage.
- Discovered the first fossil turtle from Alaska.
- Discovered major dinosaur trackways (footprints) in Lower Cretaceous exposures on the North Slope.

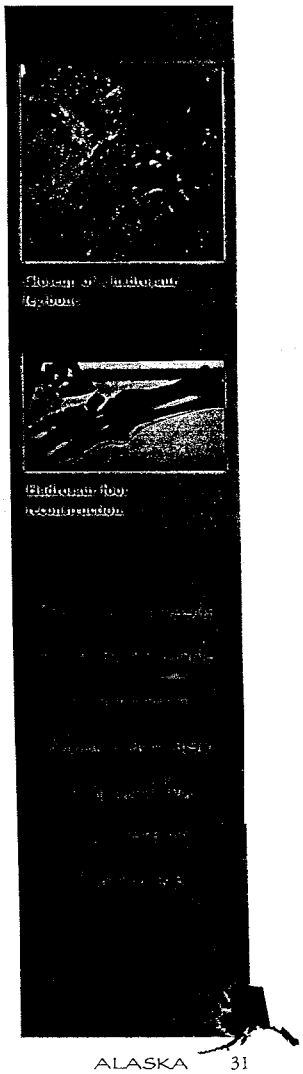
- Discovered and recovered approximately 120,000-year-old mammoth tusk remains in mining operations in the Valdez Creek drainage of Alaska.
- Developed various paleontological displays in the Federal Building in downtown Anchorage. Dinosaur fossils from BLM lands in northern Alaska are also enjoyed by tourists in Fairbanks.
- Assisted local newspapers and TV and radio stations in producing features on fossils in Alaska.
- Worked with the Alaska Museum of Natural History in Eagle River, Alaska, during 1999–2000 to study exposed Cretaceous terrane in western Alaska, collecting fossil pollen, which tells us about that region's past climate and about its past configurations of land and water.
- Staged a major display on North Slope dinosaurs in April 2000 at the Outdoor Alaska Sportsman Show in Anchorage, a major spring event in Alaska's largest city.
- Developed paleontological teaching kits for loan to schools.
- Wrote over 90 short articles on paleontological subjects that were published in the "Alaska Naturalist" column in the Anchorage Daily News.
- Provided, since the mid-1980s, special presentations at schools and other places, upon request, concerning Alaska's dinosaurs.

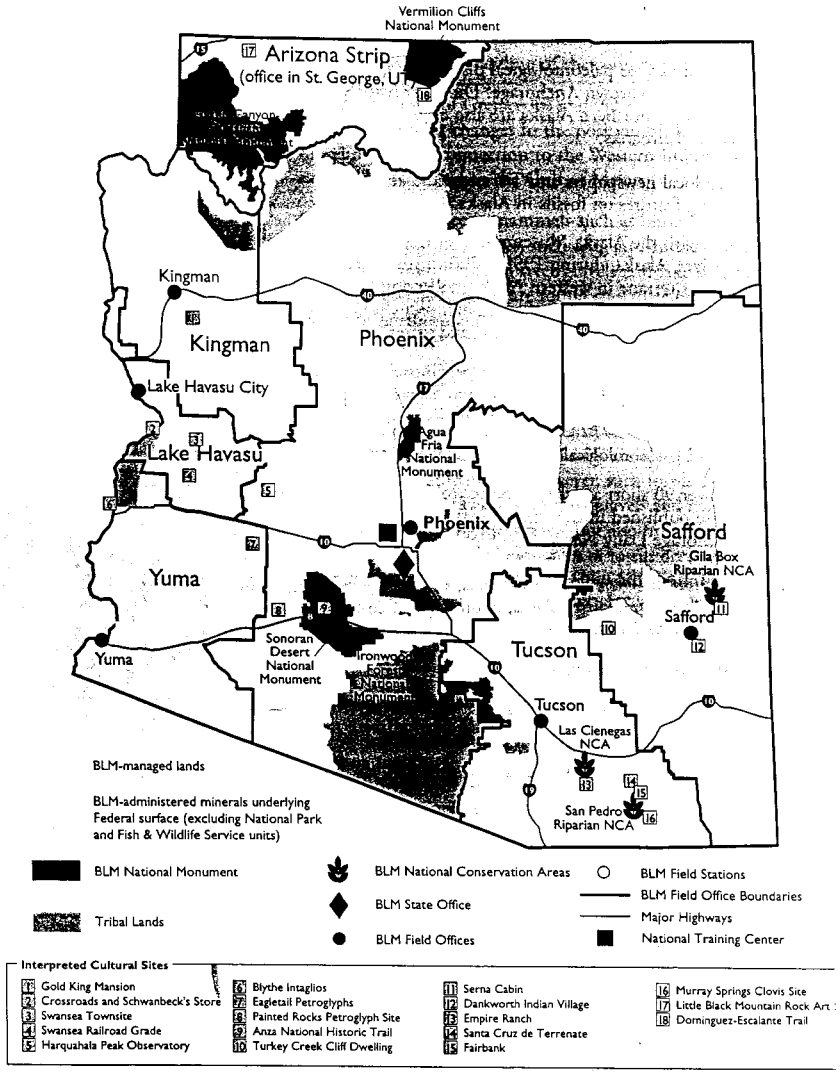
5. Existing Partnerships

- Alaska Museum of Natural History, Eagle River.
- University of Alaska Museum for curation and for facilitating the study of a variety of ancient plant and animal remains throughout Alaska, including world-class dinosaur fossil remains on the North Slope.
- University of Alaska Geophysical Institute to analyze Pleistocene bones in a study of population size and distribution.
- University of Alaska for paleontological work at Bering Glacier and other projects.

6. Economic Benefits

There is no definitive information on economic benefits; however, the University of Alaska Museum and the North Slope dinosaur exhibit at the recent Sportsman Show drew thousands of visitors.





Interpreted Cultural Sites

1. Gold King Mansion
2. Crossroads and Schwanbeck's Store
3. Swansea Townsite
4. Swansea Railroad Grade
5. Harquahala Peak Observatory
6. Blythe Intaglios
7. Eagletail Petroglyphs
8. Painted Rocks Petroglyph Site
9. Anza National Historic Trail
10. Turkey Creek Cliff Dwelling
11. Serna Cabin
12. Dankworth Indian Village
13. Empire Ranch
14. Santa Cruz de Terrenate
15. Fairbank
16. Murray Springs Clovis Site
17. Little Black Mountain Rock Art
18. Dominguez-Escalante Trail

ARIZONA

Statistical Overview

Acres of public land	14.2 million acres
Acres inventoried for cultural properties (FY 2000)	22,505 acres
Acres inventoried for cultural resources (to date)	712,041 acres
Cultural properties recorded (FY 2000)	163 properties
Cultural properties recorded (to date)	10,539 properties
Cultural Resource Use Permits in effect (FY 2000)	56 permits
National Register of Historic Places listings (to date)	19 listings
National Register of Historic Places contributing properties	362 properties
Section 106 class III undertakings (FY 2000)	408 undertakings
Section 106 data recovery, projects (FY 2000)	4 projects
Section 106 data recovery, properties (FY 2000)	7 properties
Interpreted places	18 places

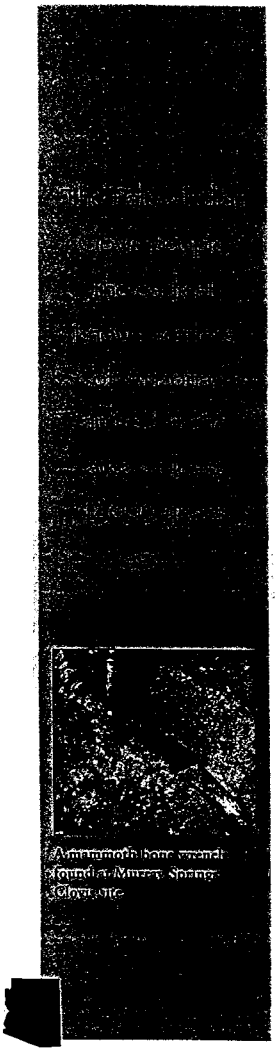
Cultural Resources

1. Program Summary

Arizona BLM manages some of the most important and best preserved prehistoric and historic archaeological sites in the American Southwest. These sites span the entire range of human occupation in the New World, from 13,000 years ago to the present. They include properties as diverse as Paleo-Indian mammoth kill sites, Archaic hunting camps, giant ground figures

These sites span the entire range of human occupation in the New World, from 13,000 years ago to the present.

A public walk on the Beale Wagon Road.



A mammoth bone found in Murray Springs, Clovis site.

(intaglios), pueblo ruins, rock art, ghost towns, historic ranches, and numerous historic trails and wagon roads such as the Butterfield Overland Stage route. Nineteen individual properties and Districts are listed on the National Register of Historic Places, and one is a National Historic Landmark. More than 700,000 acres of Arizona public land have been inventoried for cultural resources and over 10,500 sites recorded. Eighteen cultural properties are interpreted and developed for public visitation.

Twelve Areas of Critical Environmental Concern, comprising nearly 227,000 acres, were designated entirely or partly to provide for the protection of cultural resources. Three National Conservation Areas—San Pedro Riparian, Gila Box Riparian, and Las Cienegas—contain numerous significant cultural properties, including the Lehner mammoth kill site, a National Historic Landmark. In 2000 and 2001, five new national monuments were designated, providing special protection and recognition to approximately 2 million acres of BLM-administered lands containing hundreds of highly important cultural properties such as pueblo ruins, hunting camps, villages, trails, prehistoric agricultural fields, rock art, and other remains of Arizona's past.

2. State Cultural History

The Paleo-Indian Clovis people, the earliest known settlers of Arizona, arrived in the area at least 12,000 years ago (10000 B.C.), near the end of the Pleistocene period (ice age). These people used distinctive spear points to hunt the huge animals, such as mammoths, which populated the land during this cool, wet period.

By 6000 B.C., warmer and drier conditions contributed to the extinction of the large Pleistocene animals. People adapted to these changes with a new way of life, which lasted for thousands of years and was known as the Archaic period. The Archaic people hunted and gathered a wide variety of plants and animals and operated within far-flung social and trading networks. Towards the end of the Archaic period, many groups began adopting agriculture to supplement their other foods.

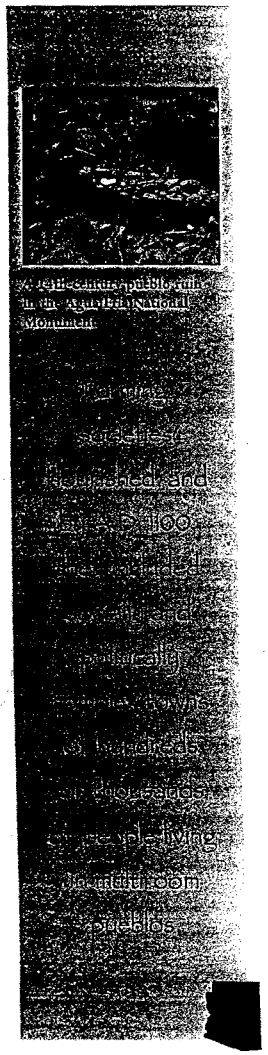
These early farmers lived in settled villages and by A.D. 0 (2,000 years ago) the Formative period was underway. Pottery,

irrigation, larger villages, and distinctive societies emerged during this time. The Hohokam constructed large irrigation canals along the rivers of the southern Arizona desert, the Mogollon lived in the mountains and valleys of eastern Arizona, the ancestral Puebloan (Anasazi) occupied the Colorado Plateau and the Arizona Strip regions, and the Patayan inhabited the Colorado River and desert areas in the west. Modern tribes, including the Hopi and the O'odham, are descendants of these people. About A.D. 1400, other groups, such as the Navajo, Apache, and Paiute, migrated into Arizona as well.

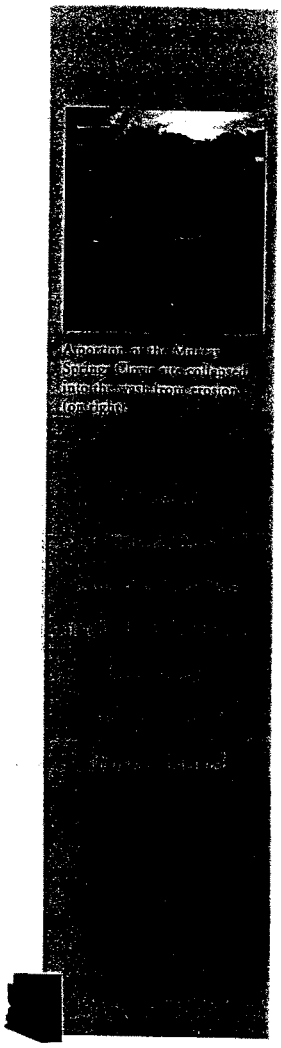
Farming societies flourished, and by A.D. 1100, they included socially and politically complex towns of hundreds or thousands of people living in multiroom pueblos. Eventually groups abandoned villages in valleys and aggregated into larger, more defensible settlements in upland areas or remote canyons. Such settlements included pueblos on Perry Mesa that are now managed within the Agua Fria National Monument. There are signs of warfare during this time, and by A.D. 1450, the inhabitants abandoned many of these settlements and migrated to other regions.

The Spanish arrived in Arizona in 1540 with Coronado's expedition. Others followed, establishing missions, introducing European livestock and crops, and bringing foreign diseases, which may have caused dramatic declines in Indian populations. In 1775, Captain Juan Bautista de Anza led a colony of settlers to California along the Santa Cruz and Gila Rivers, passing by Painted Rocks. His route is now designated as a Millennium Trail managed in part by the BLM. In 1776, construction began on the Presidio of Santa Cruz de Terrenate, now a historic site managed by BLM, to guard the northern border of New Spain.

American "mountain men," including Jedidiah Smith and Kit Carson, trapped and traveled through Arizona in the early 1800s. They were followed by a major influx of Americans after the United States acquired the territory through the war with Mexico in 1848 and the Gadsden Purchase in 1854. These immigrants linked themselves to their eastern homes with transportation networks including the Butterfield Overland Stage route, which is still traceable on BLM lands. Conflicts with Indians resulted in numerous skirmishes from the 1860s to the 1880s and the creation of Indian reservations during this time. Approximately three dozen military camps and forts were established in Arizona between 1865 and 1920.



A prehistoric pueblo ruin in the Agua Fria National Monument.



The Spaniards introduced cattle in the 17th century, and ranching has been important in Arizona ever since. BLM manages significant pieces of this ranching history, such as the 19th century adobe headquarters of the Empire Ranch, now one of BLM's most important historic properties. Rich strikes of silver and gold led to a mining boom in the 1860s, which twice doubled Arizona's population during that decade. By 1888, copper mining dominated silver and gold; it has remained a mainstay of Arizona's economy.

3. Cultural Resources At Risk

- Rock art is being lost due to theft and vandalism, such as the shooting, paintballing, and chalking of sites on the Arizona Strip; removal of petroglyph boulders from the Black Mountain bajada; chiseling of petroglyphs from bedrock panels at the Warm Springs petroglyph site; and use of sledge hammers to break petroglyphs from boulders at Cocoraque Butte.

- Erosion threatens countless sites, including historic buildings, villages, and human burial sites. For example, erosion is harming prehistoric villages in the San Simon Valley; farm sites are being flooded in the Gila Box Riparian National Conservation Area; and channel erosion threatens the world-class Murray Springs Clovis site, where a large section of the site was lost in a recent flash flood.

- Looting and vandalism of villages, rock shelters, historic buildings and other sites are a continuing problem. Sites damaged by digging, artifact collecting, shooting, illegal occupancy, trash dumping, use of metal detectors, and in some cases, blasting include the McHeffy Butte Rock Shelter, Canyon Station stage stop, Times Gulch Cabin, the Presidio Santa Cruz de Terrenate, and pueblo sites in the Agua Fria National Monument and adjacent Bumble Bee area. Historic graves have been looted at the Richardson Homestead, Carrow–Stephens Ranch, and elsewhere.

- Off-highway vehicle and increasing visitor use contributes to surface collecting of fragile archaeological

sites and opens new areas to vandalism and artifact collecting. Areas of high resource values and special designations receive especially heavy use, such as the Gila Box Riparian National Conservation Area, Aravaipa area, Muleshoe area, and much of Apache and Navajo Counties. Segments of historic trails, railroad grades, and roads, including the Butterfield Overland Stage route, are being damaged by off-highway vehicle use. Fragile intaglios, rock alignments, and aboriginal trails on desert pavement are threatened, particularly in the western desert and along the Colorado River. The Incline Railway in the Cunningham Mining District, one of the last intact structures of its kind in Arizona, is threatened by newly created access.

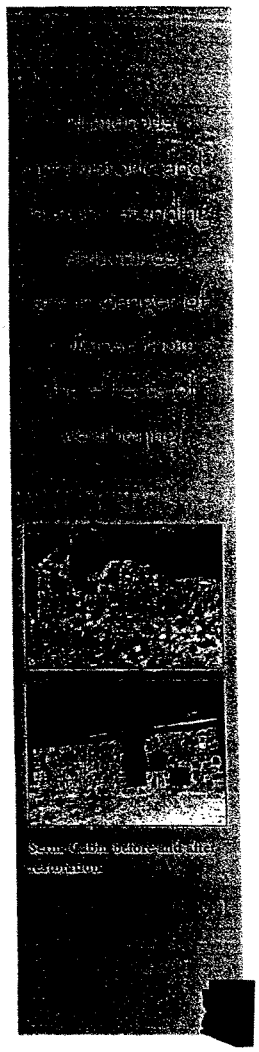
- Numerous prehistoric and historic standing structures are in danger of collapse from the effects of weathering. Standing walls of pueblo ruins on the Paria Plateau are deteriorating, structures and features associated with the Harquahala Peak Smithsonian Observatory and the historic Swansea Townsite are being lost, the Beecher Well Cabin is collapsing, and the Fairbank Historic Townsite buildings are threatened by structural failures.

- The integrity of cultural landscapes, such as the Mojave Trail/Beale Wagon Road, is being jeopardized by encroaching developments, trash dumping, and off-highway vehicle use. The cultural landscape of the Agua Fria National Monument is threatened by proposed developments in private inholdings, including a communications tower. Public safety issues on abandoned mine land and mitigation measures threaten the archaeological landscapes of historic mining districts.

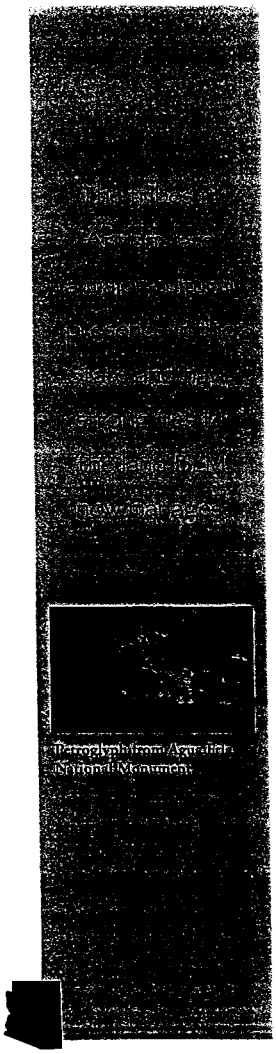
4. Major Accomplishments

- Interpreted a 13,000-year-old mammoth kill site with the assistance of a State Heritage Fund trails grant and volunteer labor.

- Received a Millennium Grant for the Empire Ranch to stabilize and reuse the adobe buildings of this historic cattle ranch; established a partnership with the Empire Ranch Foundation, a private, nonprofit, local group, to raise funds and research the history of the Ranch.



Stone Cabin adobe and stone restoration



- Recorded 125 American Indian rock art sites on the Arizona Strip in partnership with the Sierra Club.

- Received an Arizona Off Highway Vehicle Recreation Fund grant to conduct an earthen architecture worksho which stabilized buildings at the historic copper-mining town of Swansea. Received the 1999 Arizona Heritage Preservation Award for this effort.

5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

There are 21 federally recognized Indian tribes in Arizona. Indian reservations occupy more than one-quarter of the State' land. More than half of the reservation land held in trust for tribes by the U.S. Government is in Arizona, and nearly a fifth of the American Indians who live on reservations in the Unitec States live on reservations in Arizona. The tribes in Arizona ar a major cultural presence in the State and have strong ties to the land BLM now manages. Because of this rich Native American heritage and the tribes' keen interest in the lands they traditionally occupied, BLM's responsibilities for coordination and consultation are particularly challenging.

BLM also manages many historic period sites that are importa to other groups whose cultures have intersected to create the social and political entity that became Arizona. Hispanic American history is reflected in sites such as the Presidio of Sa Cruz de Terrenate. Mormon history is reflected in sites such a the Honeymoon Trail. Former residents and their descendant still hold reunions at the historic townsite of Fairbank. There are Basque sheepherding camps in the Agua Fria National Monument and the Black Canyon area, and the remains of Chinese American farms and homesites within the Gila Box a San Pedro Riparian National Conservation Areas. Civilian Conservation Corps camps played a role in the past of many Arizonans, as has the military. Anglo American contributions the State's ranching and mining history can be seen at Carrow–Stephens Ranch, the Empire Ranch, and Swansea. African American homestead sites have been recorded on pub lands on the Ranegras Plain. Cultural properties and places important to these and other groups will continue to be identified as more inventories are carried out on the public lands.

6. Existing Partnerships

- State Historic Preservation Office to promote Arizona's landmark Archaeology Month program, the most comprehensive public awareness program in the country, in response to the high public interest in Arizona's cultural resources.

- Other agencies and tribes for Arizona's Site Steward program. This program has 670 volunteers monitoring archaeological and historic sites to detect and deter theft and vandalism. Volunteers contributed more than 7,000 hours to BLM over the last 2 years.

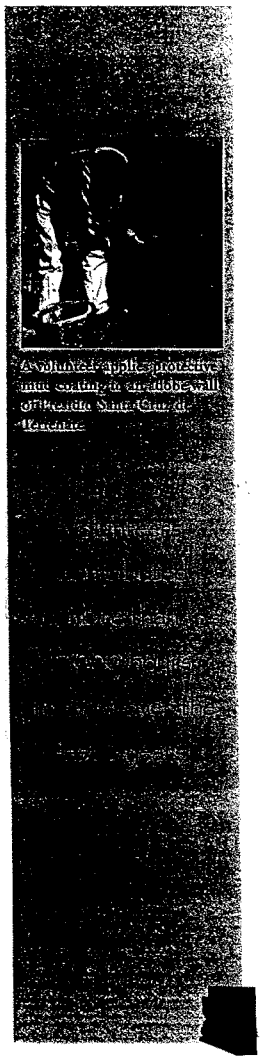
- U.S. Forest Service, National Park Service, and members of the Ute, Paiute, Navajo, and Hopi Tribes, for development of a nationwide program called Project Archaeology, which provides hands-on activities to educate children about cultural resources stewardship. Through a partnership with the Arizona Archaeological Council, this ongoing program provides materials and training to help teachers incorporate archaeology and history into their curriculums.

- State Historic Preservation Office, Arizona State University, Arizona State Museum, and the Museum of Northern Arizona for development of a statewide automated cultural resource database called AZSITE for land managers, contractors, and others to access for efficient management, planning, and implementation of cultural resource laws.

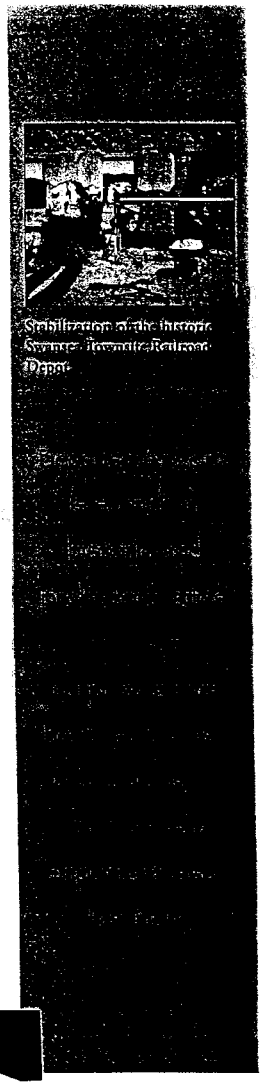
- Civil Air Patrol, through a cooperative agreement, to monitor archaeological sites such as those on the Arizona Strip and on Perry Mesa within the Agua Fria National Monument.

- Four Corners Heritage Council, in partnership with the National Park Service and the States of Arizona, Utah, Colorado, and New Mexico, to manage and promote the wide array of cultural resources in the Four Corners area.

- Arizona State Parks to create Dankworth Village Outdoor Classroom, which is a very popular field exhibit



A volunteer applies protective mud coating to an adobe wall at the Casa Grande Ruins National Monument.



Stabilization of the historic Spring Hotel Railroad Depot.

of replicated archaeological sites accompanied by an activity guide for teachers and students.

- Numerous individuals, agencies, and organizations, through cost-share agreements, to carry out a wide range of cultural-resource-oriented efforts. These partners have contributed more that $1.2 million in funds, materials, and labor to BLM over the last 5 years, matching BLM contributions by a ratio of five to one.

7. Economic Benefits

Because Arizona is so rich in historic and prehistoric sites, it is not surprising that heritage tourism is becoming an increasingly important issue for BLM. Tourism is the second largest industry in Arizona, and its economic impact to the State has more than doubled in the last 15 years. It currently creates more than 283,000 jobs and generates more than $312 million in State tax revenue each year. With Arizona's visually impressive ruins, rock art, and ghost towns, tourism is even more of a draw than it is in many other States. In fact, nearly 60 percent of the people who visit Arizona tour historic sites, which is more than twice the national average. A 1997 study by the Arizona Humanities Council showed that cultural heritage tourists spend an average of $1,534 during their stay in the State, as compared to $389 for typical travelers, and their propensity to shop is 20 percent greater. On the average, cultural heritage tourists stay 13 days in Arizona, four times longer than typical tourists. The economic contributions made by selected BLM cultural heritage sites can be roughly estimated using the data for 31 sites recorded in BLM's Recreation Management Information System, which yields an estimate of $1,134,688 for fiscal year 1999.

Paleontological Resources

1. Program Summary

Paleontological research and collection in Arizona began in the late 1800s and has continued through the early 1900s to the present. The paleontology program in Arizona has grown steadily over the past decade with a focus on new areas of discovery and increased public interest in paleontological resources. Currently there are three active paleontological collecting permits in the State. On the approximately 14 million

acres of BLM-managed surface in Arizona, two areas are specifically designated to protect paleontological values: Bear Springs Badlands and 111 Ranch Areas of Critical Environmental Concern.

2. State Paleontological History

The paleontology of Arizona reflects a time scale from Permian/Triassic-age reptiles and dinosaurs that lived 200 to 280 million years ago to more recent and recognizable fossils of animals such as mammoths, camels, bison, and saber-toothed cats from 20 million years to the more recent past of 12,000 years ago. Some of these areas contain fossil records that are the richest and best known in the world and provide researchers with critical information about the evolution of these faunas. In several cases, fossils of more recent animals underlie and overlap the time period of the first humans in North America and provide important information about that association.

3. Paleontological Resources at Risk

Resources at risk are primarily within the two Areas of Critical Environmental Concern managed by the Safford Field Office. These areas contain the fossils of Pliocene and Pleistocene mammals such as primitive elephants (gomphotheres), horses, camels, bears, hyenas, cats, and wolves. These fossils represent one of the best assemblages of late Pliocene and early Pleistocene mammals in the Southwest.

4. Major Accomplishments

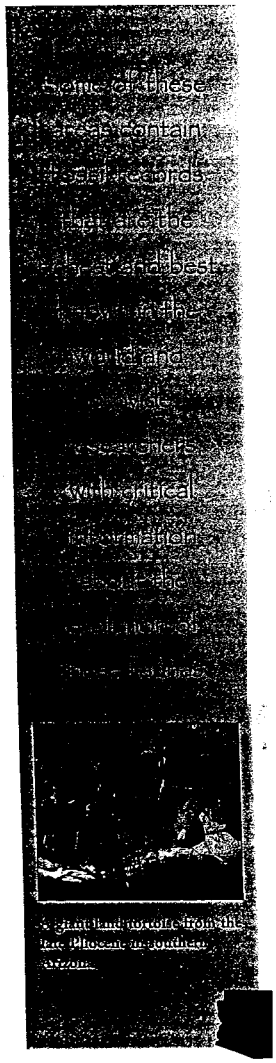
- Discovered a fossil of a new species of eagle.
- Excavated a mammoth skull with the cooperation of a local quarry operator.
- Collected fossils of a large armadillo-type animal called glyptodont.

5. Existing Partnerships

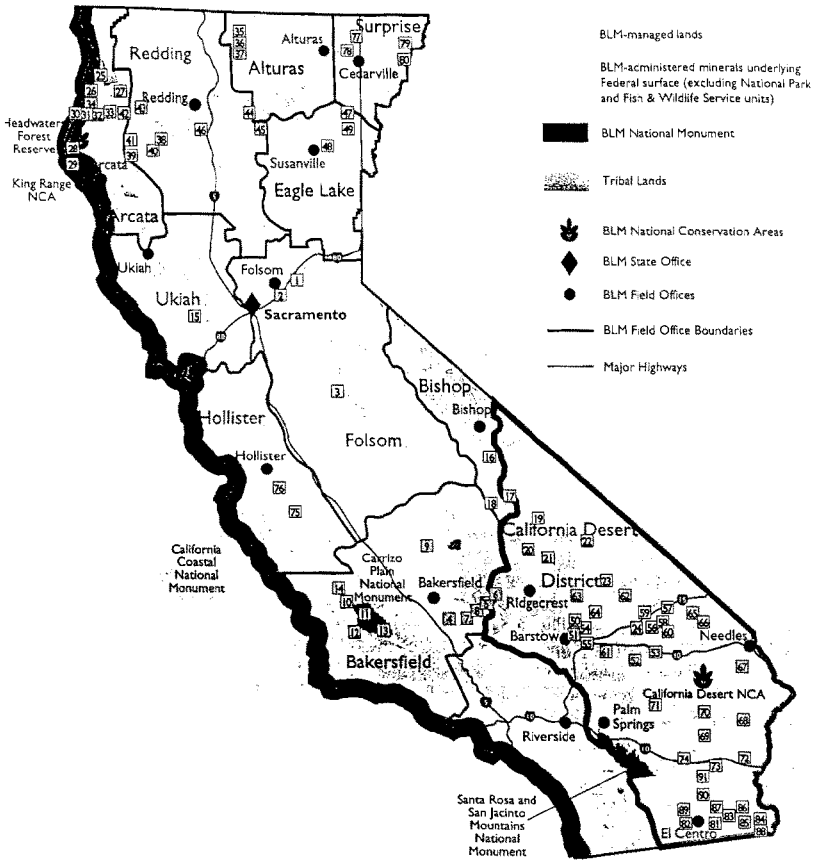
- Mesa Southwest Museum of Natural History.

6. Economic Benefits

Unknown.



A giant land tortoise from the late Pliocene in southern Arizona.



Interpreted Cultural Sites

1. Mule Spring
2. Stevens Trail
3. Westside and Cherry Valley RR
4. Keys Mine
5. Searles Wagon Road
6. Bonanza Trail
7. Keysville Fort
8. Walker Pass
9. Kweah Advance Colony
10. Kern County Land Co. Hist. Wagon Trail
11. Traver's Ranch Interpretive Trail
12. Painted Rock Interpretive Trail
13. Goodwin Education Center
14. Carrizo Plain National Monument
15. Cache Creek
16. Fish Slough Petroglyphs
17. Chidago Canyon Petroglyphs
18. Red Canyon Petroglyphs
19. Saline Salt Tram
20. Fossil Falls
21. Ayers Rock
22. Reilly Anthony Mill
23. Tuff Block House
24. Manix Basin
25. Humboldt Harbor Lighthouse
26. Humboldt Harbor Historical District
27. Falk Townsite and Millsite
28. Cape Mendocino Lighthouse
29. Shelter Cove Prehistoric Site
30. Punta Gorda Lighthouse
31. Mattole Indian Site CA-HUM-177
32. Mattole Indian Site CA-HUM-176
33. Abalone Point
34. Nadelo and Wailaki Campgrounds
35. Yreka Historic Trail
36. Cedar Gulch Indian Cemetery
37. Osburger Historic Site
38. Salt Flat Indian Site
39. Limekiln Cabin
40. Indian Creek Townsite
41. West Weaver Creek Mining Landscape
42. LaGrange Hydraulic Mine
43. Bagdad Historic Townsite
44. Kett Prehistoric/Ethnohistoric Site
45. Horsetown Historic Site
46. Jewish Baby Grave
47. Noble Emigrant Trail
48. Jack's Valley
49. Belfast
50. Calico Early Man Site
51. Silver Lake Cairn Site
52. Rodman Mountains Archaeological District
53. Surprise Tank
54. Black Mountain Rock Art District
55. Harper Lake
56. Impassible Pass
57. Emigrant Pass
58. Mormon Road
59. Von Schmidt Boundary
60. Cronese Basin
61. Juniper Flats
62. Salt Creek
63. Denning Springs
64. Owl Canyon/Rainbow
65. Coxey/Van Dusen Road
66. Harry Wade Exit Road
67. Camp Ibis
68. Camp Rice
69. Camp Iron Mountain
70. Lost Arch Inn
71. Amboy Crater
72. Mule Tank
73. Mule Mountain Intagli
74. Corn Springs Rock Ar
75. Arroyo de Cantua
76. New Idria
77. Rock Creek Petrogly
78. Lassen-Applegate Tra
79. Massacre Rim Petrogl
80. High Rock/Lassen-Ap
81. Singer Geoglyphs
82. Yuha Geoglyphs
83. Jackson Gulch Geogly
84. Plank Road
85. Tumco Mining Town
86. Mesquite Mine
87. Indian Pass
88. Patton at Camp Pilot
89. De Anza
90. San Sebastian
91. Bradshaw Trail

CALIFORNIA

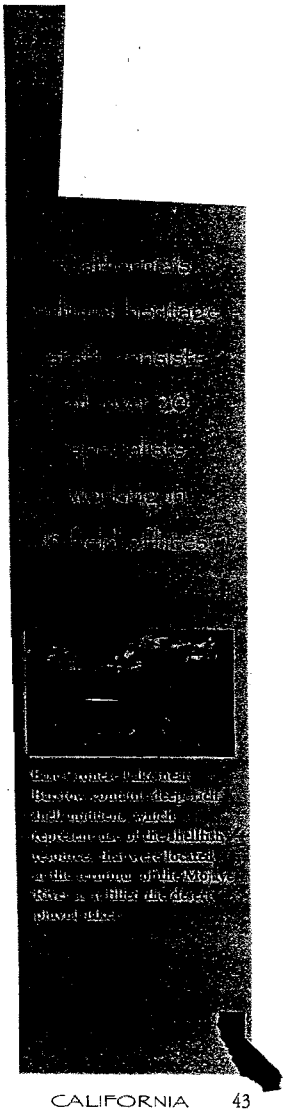
Statistical Overview

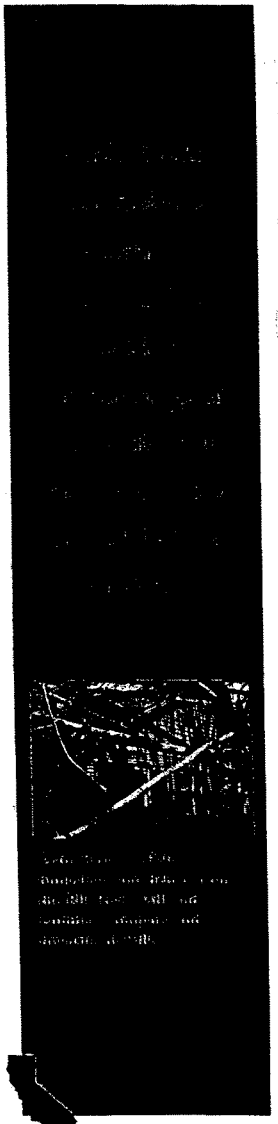
Acres of public land	14.5 million acres
Acres inventoried for cultural properties (FY 2000)	38,450 acres
Acres inventoried for cultural resources (to date)	1,624,974 acres
Cultural properties recorded (FY 2000)	446 properties
Cultural properties recorded (to date)	25,320 properties
Cultural Resource Use Permits in effect (FY 2000)	113 permits
National Register of Historic Places listings (to date)	28 listings
National Register of Historic Places contributing properties	1,118 properties
Section 106 class III undertakings (FY 2000)	363 undertakings
Section 106 data recovery, projects (FY 2000)	19 projects
Section 106 data recovery, properties (FY 2000)	51 properties
Interpreted places	91 places

Cultural Resources

I. Program Summary

California's cultural heritage staff consists of over 20 specialists working in 15 field offices. Seven master degree candidates work alongside BLM staff enhancing their skills, with an eye towards eventually replacing the current generation of archaeologists.





Staff time is focused on processing the huge caseload of land use projects, which include proposals for infrastructure development oil and gas development, sand and gravel extraction, pipelines, rights-of-ways, land exchanges, and much more. While the bulk of the work required to comply with section 106 of the National Historic Preservation Act is conducted by cultural resource use permittees, over 90 percent of BLM staff time is still spent completing work in compliance with section 106. Ideally, cultural resource specialists in each field office should spend at least 20 percent of their time completing work in compliance with section 110 of the National Historic Preservation Act, such as proactive inventory, site evaluation, and site protection, although this target has yet to be attained. California BLM has 28 sites listed in the National Register, but estimates that it has at least 5,000 sites eligible for listing.

Each year, California BLM field offices spend time working with the public during California Archaeology Week. BLM also helps sponsor the California Archaeology Month poster. In the last 2 years, the State of California has sponsored an Archaeological and Cultural Awareness Event with a California Indian group or advocates to maintain aboriginal uses of public lands.

California BLM also works with the State to provide for the protection of the resources through the Site Stewardship program; over 80 site stewards currently monitor and report back on site conditions of archaeological and historic sites all over the State.

California BLM has over 20 memorandums of understanding with in-State Indian tribes, including one with the removed Modoc of Oklahoma. ~~California works closely with the Native American Heritage Commission and has had a memorandum of understanding with them since 1983.~~

Graduate research for theses and field school activities are all a part of a growing program involving universities throughout the State.

2. State Cultural History

Controversy surrounds the question of the earliest occupants of the State. Researchers from the 1930s to the present have focused on the dry lake beds of the Great Basin and California deserts, attempting to discern the earliest site. Public lands near Baker in southern California have yielded archaeological materials from the Paleo-Indian period, before 9000 B.C. Older sites may exist on the coast, but are now submerged below sea levels, which rose as glaciers melted at the end of the ice age.

Archaeology confirms there was a substantial population in California during the Middle Horizon, from about 6000 to 3000 B.C. Like Archaic populations elsewhere, California's inhabitants used stone tools to process vegetable foods and to tip their darts for hunting. Acorns and wild grasses provided a substantial portion of the diet, supplemented by fish and small game.

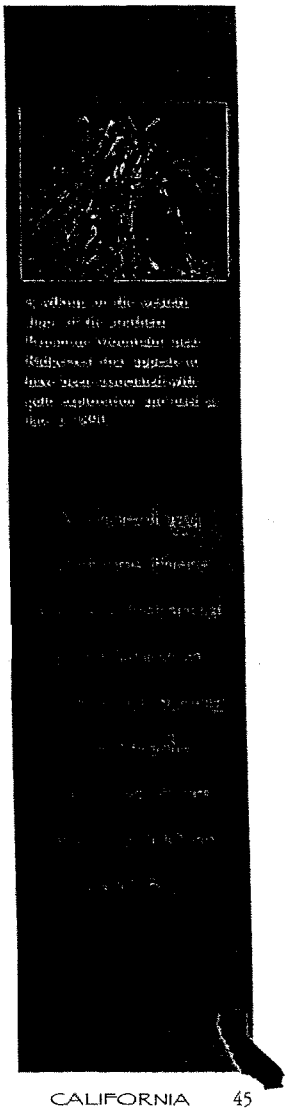
From about 1000 B.C. to A.D. 1000, the deserts in the south and the Great Basin in the east became drier, and the population in California seems to have shifted to inland valleys and the coast, where fishing contributed substantially to the economy. The bow and arrow was introduced during this period, as were ceramic manufacturing, some agriculture, and sedentary villages.

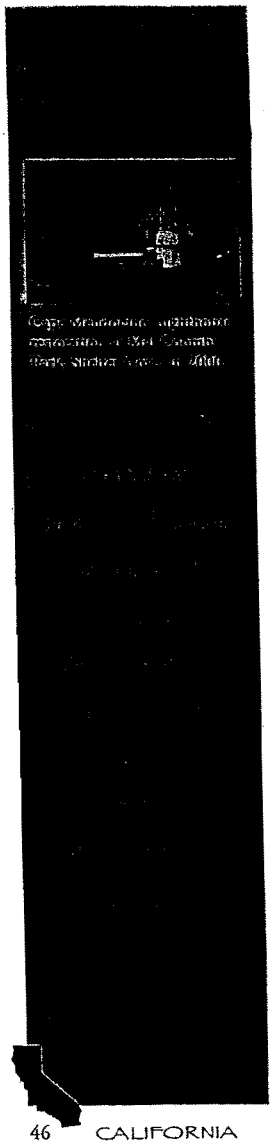
After A.D.1000, until the time of contact with Europeans, population growth throughout the State led to human exploitation of resources in all of the State's ecological zones. Population estimates for this period range from 300,000 to 1 million. The people engaged in a variety of different subsistence tasks, including hunting and gathering, fishing, growing minor crops, and implementing flood plain agriculture. Acorns and other native plants were harvested, and corn, squash, and beans were planted in certain areas of the State.

European contact increasingly displaced and destroyed native peoples between 1540 and 1850 through disease, conquest, and destruction of native resources. By 1900, California's native population was reduced to only 20,000 people, scattered to various parts of the State where they were often unfamiliar with the territory and unable to follow traditional ways of making a living. Beginning in 1882, reservations for tribes and for family groups were established by Executive order. As a result, the approximately 50 tribes in California today are found on over 100 reservations throughout the State.

The Spanish founded the Mission San Diego De Alcala in 1769, which was the first permanent European settlement. California remained a part of Spain throughout the subsequent mission period until Mexican independence in 1834. In 1849, California became an American territory, then in 1850, a State.

The discovery of gold in 1849 brought a flood of prospectors to California. Many stayed to develop the State, contributing to agriculture and other industries. The advent of the railroad towards the end of the 19th century and homestead laws further helped open markets and foster settlement, especially in the desert areas. Major military development, especially during





World War II, bolstered the State's economy and dominated the southern landscape. Rapid urbanization in the post-war years has increased pressures on public lands for recreation.

3. Cultural Resources At Risk

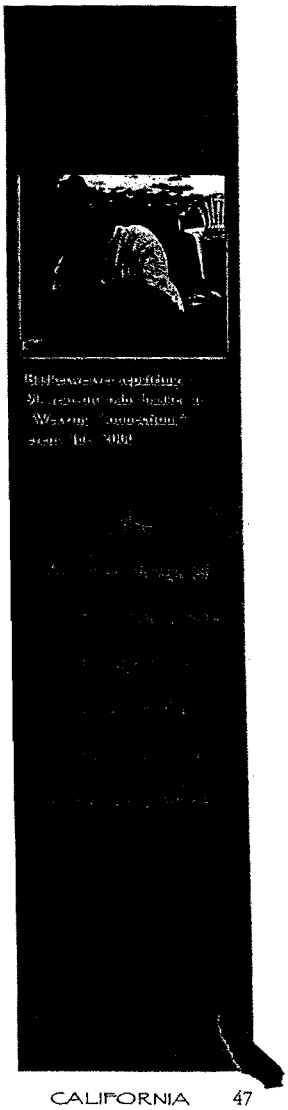
In 1978, a study of the California Desert showed that 36 percent of the archaeological sites had already been damaged, and that the continuing loss of sites was predicted to occur at the rate of 1 percent per year. While regular monitoring, public education efforts, and law enforcement have helped to reduce the rate of loss, site destruction continues. Vandalism, motorized abuse of the land, erosion, deterioration, and casual collecting continue to affect sites in California. Since there is no regular monitoring of sites in California as a whole, the real extent of the problem is unknown.

The major reasons for deterioration of sites are lack of money and staff to stabilize, monitor, and maintain them. A comprehensive heritage education program is needed to reach the 15 million children in the State's school system.

4. Major Accomplishments

- Dedicated time to Section 110 activities, nominated and listed properties on the National Register of Historic Places, developed a Site Stewardship program with approximately 100 site stewards, and hired seven staff specialists and six student trainees to meet State program obligations under the National Programmatic Agreement and State Protocol.
- Included 90 volunteers in the Archaeological and Cultural Awareness Program, in which the public participates in the Bureau's heritage program, at two events preserving archaeological (site excavation) and cultural (native basketry) heritage.
- Trained most California managers, supervisory staff, and cultural resources specialists at a Native American Coordination and Consultation Class sponsored by the BLM National Training Center/Desert Managers Group.
- Contracted for a contextual study of the General George S. Patton Desert Training Center/California–Arizona Maneuver Area, and for the National Register nomination of the Iron Mountain Divisional Camp.

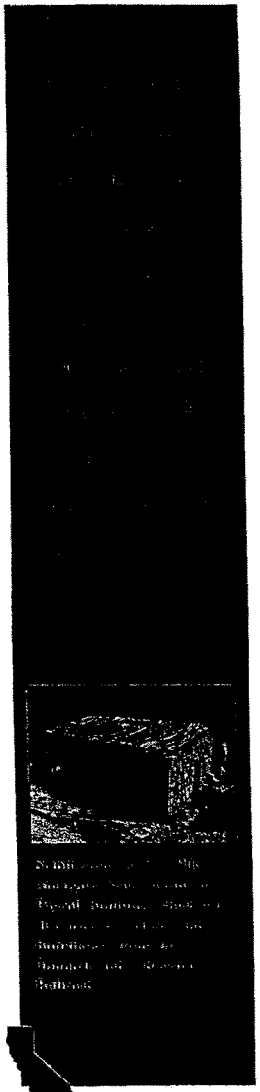
- Developed a list of cultural resource properties that managers and program staff have targeted for purchase or exchange with a willing seller; the Archaeological Conservancy has pledged to assist in the acquisition of some key sites.
- Used site banking techniques at the Bishop Field Office to acquire a significant archaeological resource in exchange for a minor archaeological site, with the concurrence of the State Historic Preservation Office staff.
- Field Offices engaged in numerous activities to stabilize sites, develop historical context studies, protect sites through barriers and fencing, interpret cultural resources, monitor and document rock art sites, inventory land burned in the 2000 fire season, work with the Border Patrol to protect sites from vehicular impacts, acquire a historic Chinese townsite, promote studies of petroglyph sites, and inventory and evaluate cultural resources using field schools, volunteers, and student labor.



5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

Today California has more tribes than any other State in the union. Officially 107 federally recognized tribes are scattered throughout the State. While some of the tribes live on large reservations, such as the Hoopa or the Colorado River Indians, most live on small rancherias consisting of 40 acres or less. They are the poorest segment of California's diverse population, although gaming has allowed these tribes to begin economic development and share their money with nongaming tribes. Tribes are interested in cultural resources on public lands that their ancestors occupied. BLM works closely with many of these tribes in understanding their need for native plant materials to construct baskets and for clay to construct pots. Some of these materials are now found only in wilderness where access is often restricted.

California also has over 50 tribes and Indian groups that are not federally recognized, but have either petitioned for acknowledgment or are expected to do so in the future. These groups are also scattered throughout the State. Many previously were recognized, but lost or gave up their Federal status due to historic events. California BLM works closely with the California Native American Commission to ensure that we are aware of these groups and coordinate with them.



In addition to the native peoples, the Chinese, African-Americans, Mexicans, and Japanese all played an important part in California's history. Current work in both northern and southern California is exposing the deep-rooted connections of Chinese immigrants to sites found on the public lands. Black history is embellished in the El Centro Field Area with the dedication of an interpretive sign honoring the Buffalo Soldiers who patrolled the Mexico-California border from their facilities at nearby Campo in San Diego County. The history of Mexicans in California is widespread and can be enjoyed on much of the public lands. Each year many Mexican families, for example, hold an annual picnic at Joaquin Rocks, the alleged location of the legendary silver and gold acquired by California's "Robin Hood of Eldorado," Joaquin Murrieta. At Tule Lake, the remnants of a Japanese internment camp, where Japanese-Americans suffered through the years of World War II, are being studied for future preservation.

6. Existing Partnerships

- Society for California Archaeology to promote California Archaeology Month, during which field offices give tours and work with local archaeological societies, historical societies, and tribes to foster good and effective site stewardship practices.

  Mendocino National Forest, California State University at Chico and Sonoma, University of California at Davis and Berkeley, State Parks, and Lake County Indian tribes, working with the Ukiah Field Office, for the development of a regional Native American museum and curation facility.

- Multiple academic institutions, including Notre Dame, Shasta Community College, and California State Universities at Humbolt, Fresno, and Sonoma, working with BLM field offices, to document cultural resources, curate archaeological materials, and conduct research.

- California Office of Historic Preservation, through a challenge cost-share agreement, to automate cultural resource records. Accrued approximately $50,000 worth of benefits from State Historic Preservation Office staff and volunteer work on digitizing and scanning records.

- Native American History Project, Inc., through a cooperative agreement, to develop an interpretive

photographic exhibit entitled "Embracing Cultures, Spanning Generations," depicting the lives of indigenous Pomo Indians.

- Shelter Cove Lighthouse Preservation Society, through a cooperative agreement, for the relocation of the Cape Mendocino Lighthouse and development of a public information and interpretive center.

7. Economic Benefits

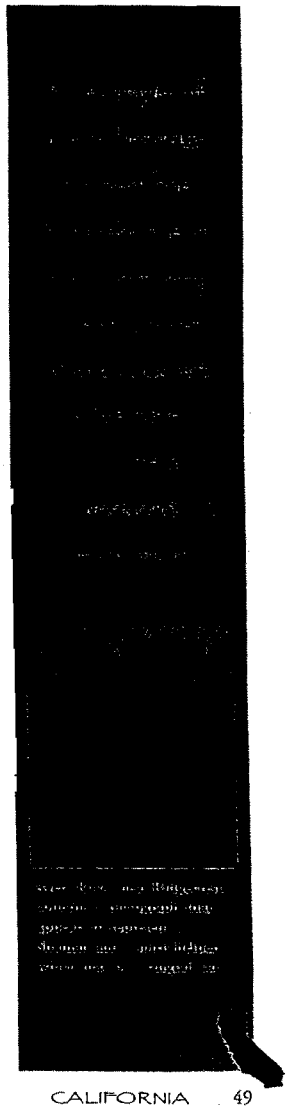
Towns throughout California are encouraging visitation to the remote areas managed by BLM. BLM has designated Backcountry Byways to lure the visitor into these areas. An example of where heritage tourism has flourished is in the community of Ridgecrest, where rock art sites have become a weekend destination. Audited visitation to Little Petroglyph Canyon, which is managed by the Maturango Museum and scheduled through China Lake Naval Weapons Center, brings in over $1.3 million each year to the local economy. A rock art brochure for eastern California serves to enhance the tourist experience and encourages watchful visitors to serve as BLM's "eyes and ears" at these sites.

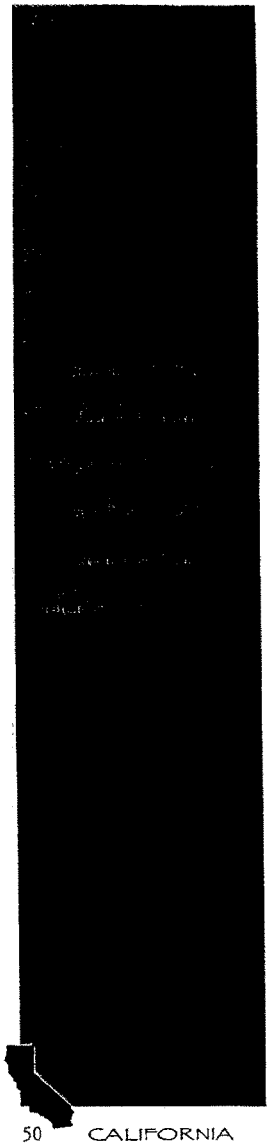
Throughout the State, family-oriented heritage tourism is bringing money into small communities. There has been a resurgence of interest in Route 66, the Old Spanish Trail, the Yreka Immigrant Trail, migration to the West, and local history, all of which are promoting tourism in a significant way.

Paleontological Resources

1. Program Summary

California BLM administers 14.5 million surface acres of public land, including 1.6 million acres in Nevada. Approximately seven Paleontological Resource Use Permits are active in the State for academic researchers, college students, and volunteers working on various types of field investigations and excavations. Some of this activity is based on industrial or development projects that cross large blocks of public lands, such as the Cadiz Water Pipeline in the Mojave Desert and the Equilon Pipeline project that crossed the southern portion of the State, as well as Arizona and New Mexico. Institutions that are active in paleontological research in the State are the L.A. County





Museum; San Bernardino County Museum; University of California, Berkeley; and several others.

California BLM manages several areas for their paleontological values. Among these are three Areas of Critical Environmental Concern: Dinosaur Trackway, Marble Mountain Fossil Bed, and Rainbow Basin. In addition, there are other areas that are the focus of special management: the Maricopa and McKittrick Ice-Age tar-seep fossil beds and the Pyramid Hill–Temblor Formation marine vertebrate bone beds.

2. State Paleontological History

California's landscapes reflect a long and varied geologic and paleontologic history. Some of the rocks now exposed at the surface are among the oldest on Earth. Some of the earliest known Cambrian age fossils, as well as diverse Paleozoic age invertebrates, are found in the southeast California region extending from the eastern Sierra–Inyo–White Mountains to the Marble Mountains–Mojave Desert area. Vast expanses of shallow seas existed where trilobites, corals, and other types of invertebrates thrived.

From about 250 to 65 million years ago, shallow seas were home to an assemblage of large predatory marine reptiles such as mosasaurs, plesiosaurs, and tiny swimming reptiles living alongside exotic invertebrates. Dinosaurs existed along the coastal margins of the seaways. The early Cenozoic era was characterized by vast, semitropical rainforests with a rapidly diversifying mammalian fauna in the coastal and mountain areas, as well as a warm, tropical interior seaway with abundant marine life. The basin and range topography of the Mojave Desert region has yielded an incredible array of Oligocene and Miocene age (40- to 5-million-year-old) terrestrial mammal faunas consisting of horses, camels, predatory cats and dogs, and other forms. One of the most complete records of Miocene-age marine vertebrate life in North America is found in the southern San Joaquin Valley area and includes whales, dolphins, seals, sharks, and a variety of other marine life.

The famous California fossil-bearing tar seep deposits along the west side of the San Joaquin Valley have yielded fossils from mammoths, horses, camels, llamas, bears, bison, ground sloths, saber-toothed cats, dire wolves, and dozens of small rodents, birds, and insects, totaling over 250 species.

3. Paleontological Resources at Risk

Urbanization of large regions in southern, central, and northern California is creating significant impacts to the resource through off-highway vehicle use and unregulated recreational and commercial collecting. In areas such as the Pyramid Hill marine vertebrate bone beds near Bakersfield, the Dinosaur Trackway Area of Critical Environmental Concern near Needles, and the Rainbow Basin Area of Critical Environmental Concern near Barstow, off-highway vehicle activities are heavily impacting the fossil resources. In other areas, California's paleontological resources are being lost through natural processes of weathering and erosion, as well as through vandalism and unauthorized collecting.

4. Major Accomplishments

- Made a major scientific discovery of the first fossil primates in California. These specimens were collected from middle-Tertiary-age sediments in the northern Mojave region under a Paleontological Resource Use Permit and are the subject of ongoing scientific research.

- Supported "The Millennium Conference in California's Desert." A special 1-day session at the March, 2001 conference highlighted recent paleontological investigations within the California Desert District.

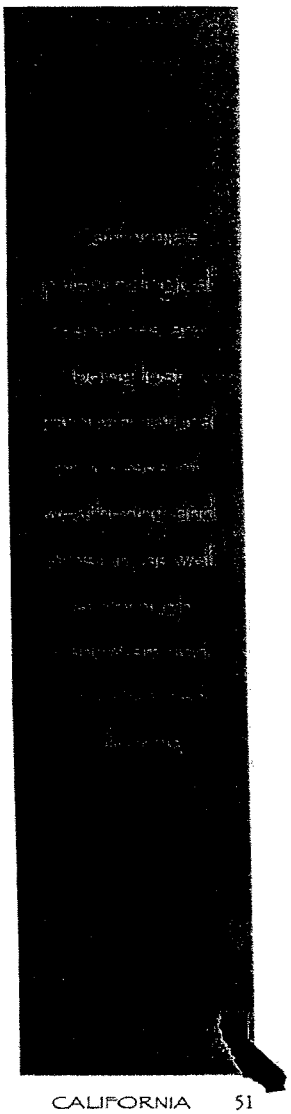
5. Existing Partnerships

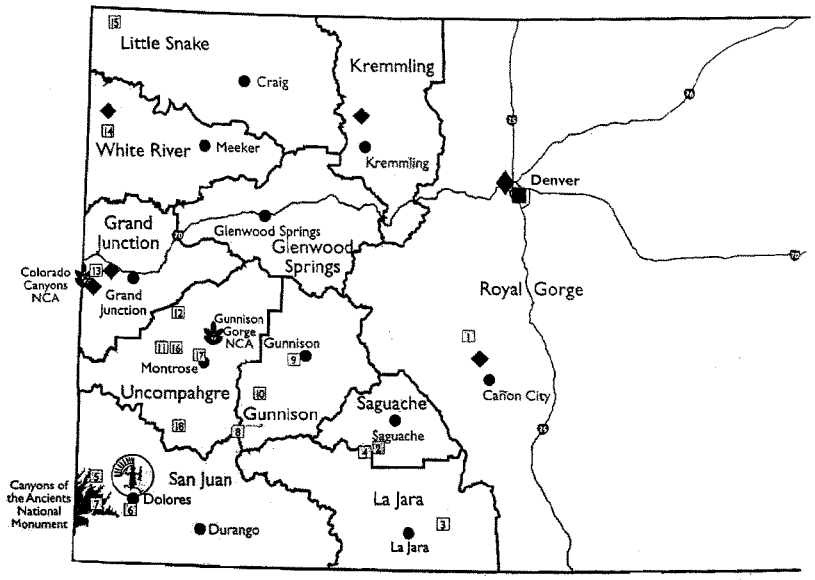
- Buena Vista Museum, working with the Bakersfield Field Office, to preserve and manage Ice-Age fossil resources in the Maricopa and McKittrick tar-seep deposits. The deposits rival Rancho La Brea in the diversity of fossil land mammals.

- Buena Vista Museum, working with the Bakersfield Field Office, to preserve and manage Miocene-age (20- to 25-million-year-old) marine fossil vertebrate resources that include whales, dolphins, seals, sharks, and other fish.

6. Economic Benefits

Unknown.





BLM-managed lands

BLM-administered minerals underlying Federal surface (excluding National Park and Fish & Wildlife Service units)

BLM National Monument

Tribal Lands

BLM National Conservation Area

BLM State Office

BLM Field Offices

BLM's National Centers

BLM Field Office Boundaries

Major Highways

Anasazi Heritage Center

Interpreted Cultural Sites

1. Gold Belt Tour Scenic Byway
2. Penitente Canyon
3. Los Caminos Antiguous Scenic Byway
4. Old Spanish Trail
5. Lowry Pueblo
6. Escalante Pueblo and Dominguez Pueblo
7. Sand Canyon Pueblo
8. Alpine Loop Backcountry Byway
9. Spencer School
10. Carr Ranch
11. Captain Smith Cabin
12. Well's Gulch Historic Roadway
13. McDonald Creek
14. Canyon Pintado Historic District
15. Irish Canyon
16. Walker Cabin
17. Dry Creek Petroglyphs
18. Fall Creek Tram

Interpreted Paleo Sites

- Dinosaur Diamond Byway
- Garden Park Fossil Area
- Kremmling Cretacious Ammonite Locality
- Rabbit Valley Trail Through Time
- Fruita Paleo Area

COLORADO

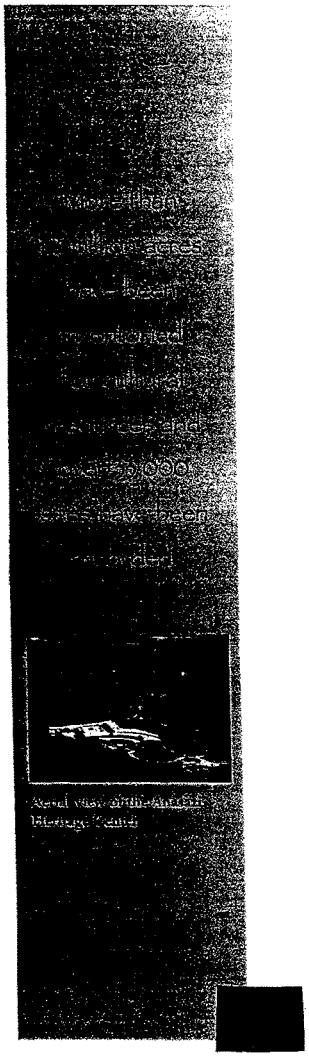
Statistical Overview

Acres of public land	8.3 million acres
Acres inventoried for cultural properties (FY 2000)	25,873 acres
Acres inventoried for cultural resources (to date)	1,233,934 acres
Cultural properties recorded (FY 2000)	943 properties
Cultural properties recorded (to date)	33,258 properties
Cultural Resource Use Permits in effect (FY 2000)	46 permits
National Register of Historic Places listings (to date)	21 listings
National Register of Historic Places contributing properties	209 properties
Section 106 class III undertakings (FY 2000)	470 undertakings
Section 106 data recovery, projects (FY 2000)	31 projects
Section 106 data recovery, properties (FY 2000)	75 properties
Interpreted places	23 places

Cultural Resources

1. Program Summary

Colorado BLM manages over 8 million acres statewide. More than 1.2 million acres have been inventoried for cultural resources and over 33,000 sites have been recorded. The cultural program has a professional staff of 22 archaeologists, 1 regional paleontologist, 1 regional historian, 2 museum specialists, and 1 curator. The Anasazi Heritage Center, one of two Bureau repositories/museums, holds about 3 million objects from the Southwest.



Aerial view of the Anasazi Heritage Center

The Canyon of the Ancients National Monument

Areas of Critical Environmental Concern, comprising 42,997 acres, were designated entirely or partly to provide special management attention to protect paleontological and cultural resources. Two National Conservation Areas, Gunnison Gorge and Colorado Canyons, contain numerous significant cultural properties, including Howell Village, and significant locations of dinosaur fossils. The Canyon of the Ancients National Monument was designated in 2000, providing special protection and recognition for about 164,000 acres of BLM-administered lands containing the highest known density of archaeological sites in the American Southwest. Archaeological and historic resources such as cliff dwellings, villages, great kivas, shrines, sacred springs, agricultural fields, check dams, reservoirs, rock art sites, and sweat lodges are spread across the monument's landscape.

2. State Cultural History

Knowledge of Colorado's first inhabitants is limited, though archaeology shows that Paleo-Indians roamed Colorado's plains and mountains by 9500 B.C. By 6000 B.C., the Archaic period brought new hunting-gathering ways of life to the region, as small, mobile human groups adapted to changing environmental conditions. This way of life lasted thousands of years. Toward the end of this era, horticulture complemented hunting and foraging in many regions and distinct regional cultures appeared.

The Late Prehistoric era began about A.D. 150, with the introduction of the bow and arrow and ceramics. Farming, sedentism, and population also increased during this time. In southeastern Colorado, people following the Plains Village tradition inhabited the upper tributaries of the Arkansas River. In the northwest, Fremont tradition people practiced both agriculture and foraging until they were replaced or absorbed by Numic-speaking hunter-gatherers from the Great Basin about A.D. 1100. The people of the Colorado Plateau in southwestern Colorado followed the Anasazi-Pueblo way of life, with intensive farming practices and multistory masonry pueblos in dense towns. This region was depopulated and abandoned in the late A.D. 1200s.

By the Protohistoric era, from about A.D. 1400 to A.D. 1700, sparse bands of hunters and gatherers roamed central-western and northwestern Colorado. These groups included the Numic-speaking Utes, Paiutes, Shoshones, and Comanches. Athapascan speakers, whose modern-day descendants are the Navajos and

Apaches, lived in the Plains and were later followed by the Comanche, Arapahoe, and Cheyenne. Following conflicts with Euro-Americans in the 19th century, most of the surviving indigenous people of Colorado lived on trust lands set aside by the U.S. Government.

The Spanish first entered Colorado between 1664–1689, though no Spanish settlements are known from this early period. In the early 1800s, fur trappers and traders worked along the Arkansas and Platte Rivers. Following the Mexican War in 1848, the area became American territory. The discovery of gold in the Pikes Peak area spawned a gold rush in 1859, which brought the first large Euro-American population to settle in Colorado.

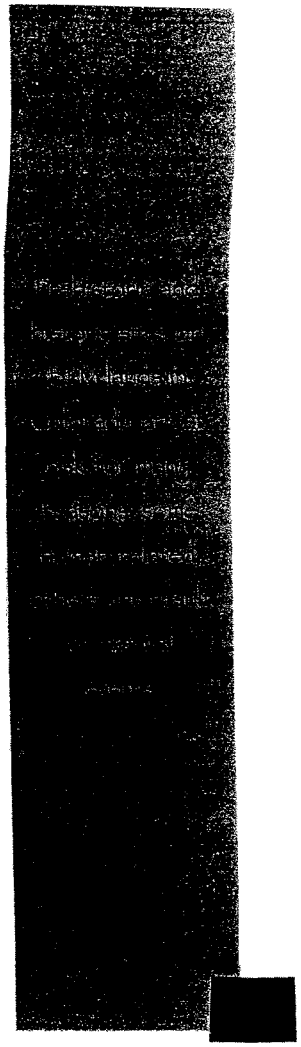
Euro-American settlement rapidly followed, especially after Indians were removed to reservations and the railroad came through the State. Agricultural settlement expanded after the Homestead Act of 1862, creating a late 19th century demand for water and a need for large water delivery systems funded by corporations.

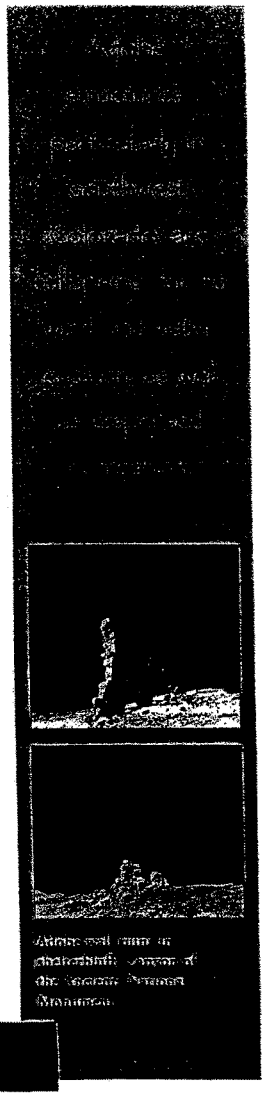
Cattle ranching became a significant industry in the late 19th century. Cattle ranchers feuded with farmers over fencing the range and with sheepherders over ruining grazing land. These conflicts came to a head in the late 1880s and 1890s on the western slope. This cultural conflict lasted until 1920, when the cattle industry declined as an economic force.

The late 19th century was a time of growth and urbanization in Colorado. Mining continued to be a prominent industry into the 20th century to meet the demand for iron ore and coal and the demand for tungsten, vanadium, and molybdenum during World War I. Tourism and natural-resource-related activities became increasingly important and remain so today.

3. Cultural Resources At Risk

Prehistoric and historic sites on BLM lands in Colorado are at risk for many reasons, some human-related, others the result of natural events. Many open-air, prehistoric sites are eroding as a result of wildfires. Livestock are trampling and churning up undisturbed prehistoric resources, damaging historic structures, and rubbing off pictographs. Lowry National Historic Landmark is threatened by natural deterioration as well as overuse. Rock shelters statewide are being disturbed and destroyed by illicit digging. Rock art sites throughout the State are threatened by cattle rubbing, chalking,





deliberate vandalism, and recreational rock climbing. Adobe structures, particularly in southwest Colorado, are collapsing due to wind and water erosion, as well as dispersed recreation. An example is the McIntyre Ranch, home of the ninth Governor of Colorado, which is collapsing from neglect. Yet other areas, such as the Cripple Creek National Historic Landmark, are having the natural setting and structures damaged and destroyed by mining and casino development. Off-highway vehicle use is damaging archaeological resources. Road maintenance is exposing buried prehistoric sites, which are subject to erosion. Historic mining structures are being destroyed by exposure, wildfire, and vandalism.

4. Major Accomplishments

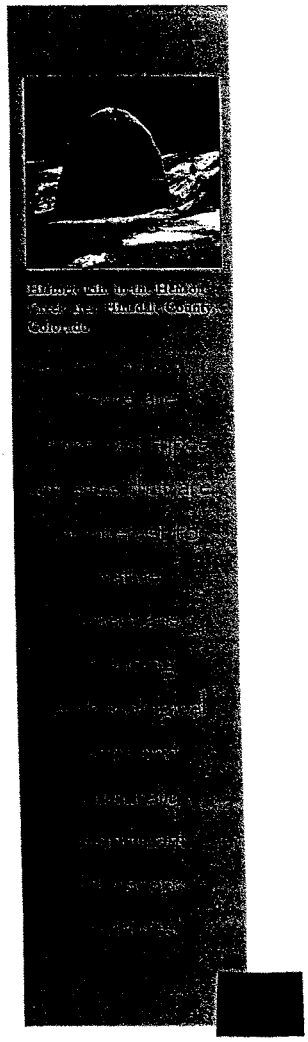
- Sponsored ongoing Paleo-Indian research and geophysical studies of cultural and paleontological resources in Middle Park with the University of Wyom and Colorado School of Mines and at the Cattleguard Paleo-Indian site with the Smithsonian Institution.

  Implemented an award-winning site stabilization and restoration program; stabilized historic mining structur including the Sound Democrat Stamp Mill, Animas Fo townsite, Calamity Camp, Fall Creek Tram, San Juan Mining District, and the Cripple Creek and Victor gol mining areas; conserved earthen architecture in the San Canyon Cultural Resource Emphasis Area, Escalante Pueblo, and Lowry Pueblo National Historic Landmar

- Opened interpretive facilities at the Canyon Pintado National Historic District and along the Alpine Loop Backcountry Byway; produced an interactive CD-RC of the Lowry Pueblo and completed interpretive improvements at the site; created a network of volun dedicated to preserving cultural resources on Federal lands in the San Luis Valley; installed an interactive computer-based exhibit at the Anasazi Heritage Cen created by students at the Santa Fe Indian School; sponsored the Colorado Anti-Vandalism Task Force Colorado Historic Preservation Week.

- Received two Save America's Treasures grants to restc collections at the Anasazi Heritage Center and to res structures in the San Juan Mining District.

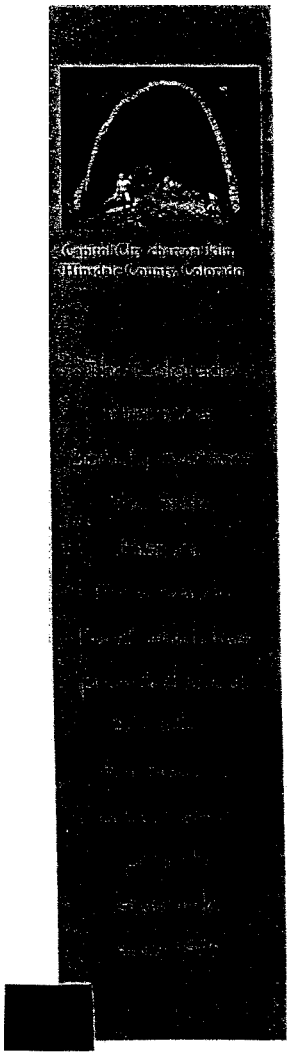
- Assisted the Ute Tribe and the U.S. Forest Service in recording a historic Ute trail and associated sacred sites.



5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

There are numerous types of sites that are of interest to Native Americans, including archaeological sites and culturally significant landscape features. Interested tribes include the Southern Ute, Ute Mountain Ute, and Northern Ute (Uintah and Ouray Ute), who were the permanent residents in Colorado until their removal from the Colorado Basin in the 1880s to reservations in southern Colorado and northeastern Utah. Other potentially affiliated tribes with a more transitory use of lands in Colorado include the Eastern Shoshone, Northern Arapaho, Comanche, and Hopi in the Northern Colorado Basin; the Acoma, Cochiti, Hopi, Isleta, Jemez, Jicarilla Apache, Laguna, Nambe, Navajo, Picuris, Pojoaque, San Felipe, San Ildefonso, San Juan, San Juan Southern Paiute, Sandia, Santa Ana, Santa Clara, Santo Domingo, Taos, Tesuque, Zia, and Zuni in the Southern Colorado Basin; the Hopi, Jicarilla Apache, Navajo, All Indian Pueblo Council, Five Sandoval Indian Pueblos, Ten Southern Pueblo Governors Council, and Eight Northern Indian Pueblo Council in the Rio Grande Basin; and the Jicarilla Apache, Comanche, Cheyenne, Arapaho, Kiowa and Kiowa-Apache in the Arkansas River Basin.

Other ethnic groups with a cultural affiliation to historic resources and landscapes have not been systematically identified through ethnohistoric studies or public scoping. The Hispanic community, particularly in the San Luis Valley, has traditional ties to shrines, rock art locations, ranches, and sheepherder camps. Mining-related cultural resources may have traditional significance to descendants of immigrants from southeastern Europe (Italians, Austrians, Croats, Serbs, Slovenes), where the majority of laborers were from. The Anglo-American population may have interest in cultural resources related to the agriculture, ranching, and mining industries. The Mormon community likely has an interest in cultural resources along the Mormon Trail and near by settlements. The Japanese-American community, particularly in the Front Range, has an interest in World War II internment camps. The Basque community located along the western slope is closely tied to sheepherding.



6. Existing Partnerships

The Colorado Historical Society oversees the State Historic Preservation Fund, which has provided about $75 million for historic preservation projects statewide since 1993. The BLM has been awarded over $730,000 and has used these funds to support partnerships.

- University of Colorado and the Museum of Western Colorado to curate archaeological and paleontological collections and records.
- State Historic Preservation Office and the Colorado Historical Society to automate cultural resource data.
- Colorado Archaeological Society for Colorado Archaeology and Historic Preservation Week.
- Friends of Canyon Pintado to protect and interpret rock art at the Canyon Pintado National Historic District.
- Western State College for Paleo-Indian research at Chance Gulch site.
- University of Wyoming and the Colorado School of Mines to conduct Paleo-Indian research in Middle Park.
- University of Nevada-Reno, Durango Archaeological Consultants, and the Colorado Historical Society for historic mining research.

7. Economic Benefits

BLM's Recreation Management Information System contains visitor use data for fiscal year 1999 for the following six cultural sites: Gold Belt Tour Scenic Byway (333,391 visits); Canyon Pintado National Historic District (4,762 visits); Alpine Loop Backcountry Byway (157,753 visits); Lowry Pueblo (15,700 visits); Sand Canyon Pueblo (18,400 visits); and Fall Creek Tra (75 visits). The number of visits total 530,081. The economic contribution provided by these six sites alone can be estimated more than $30,000,000, using an average per day expenditure for Colorado visitors of $144 and assuming that 40 percent of the visitors are nonlocal residents or are from out of State.

Paleontological Resources

1. Program Summary

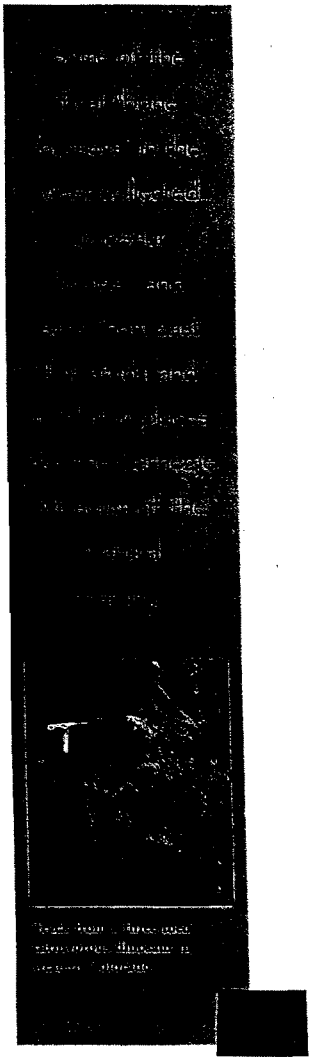
Twenty-eight Paleontological Resource Use Permits are active on the 8.3 million acres of public land administered by BLM in Colorado. Colorado has several interpreted sites that feature various kinds of fossils and other sites under special management prescriptions. These include Kremmling Cretaceous Ammonite Locality, the Garden Park Fossil Area, the Dinosaur Hill and Riggs Hill Trails and the Rabbit Valley Trail Through Time/Mygatt–Moore Quarry. Colorado BLM has one regional paleontologist, headquartered in the Grand Junction Field Office, who is responsible for providing advice and expertise upon request to Colorado, Alaska, and Eastern States Offices.

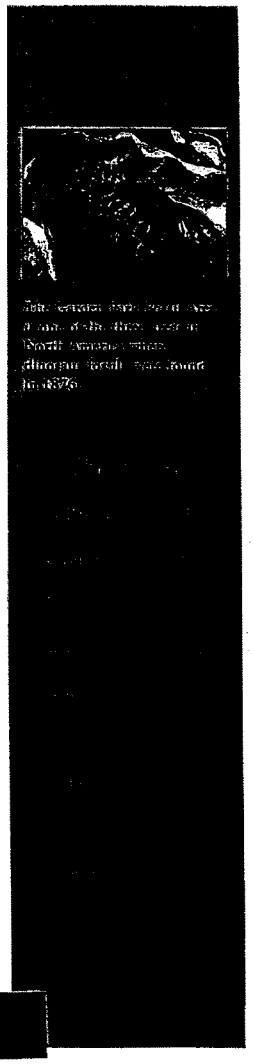
2. State Paleontological History

The oldest known rocks in Colorado predate 2.5 billion years. Colorado was an ocean bottom about 500 million years ago. Marine invertebrate fossils such as brachiopods, corals, and ammonites are well-documented from this time. Permian-age amphibians and reptiles left their tracks along 250-million-year-old tidal flats in the Lyons Sandstone near Boulder, and fish are found in the marine layers of the Fountain Formation near Colorado Springs. Triassic-age (240- to 210-million-year-old) fish and land vertebrates in southern Colorado show that fresh-water lakes and dry land existed there.

Colorado is famous for exposures of the late Jurassic Morrison Formation found in many areas of the State. Some of the first "bone hunters" in the West collected dinosaur bones—*Allosaurus*, *Apatasaurus*, *Stegosaurus*, and many others—in the Morrison Formation and sent them east for study and exhibit in places like the Carnegie Museum of Natural History in Pittsburgh and the American Museum of Natural History in New York.

Finds in younger formations include bird tracks in the Dakota Formation, dinosaur tracks in Boulder, and remains of such familiar Cretaceous dinosaurs like Triceratops, and Paleocene-age (63- to 55-million-year-old) vertebrate fossils from the Denver Formation at Colorado Springs and from Moffat County and Durango. Eocene sediments (55–45 million years old) also





preserve a rich record of primitive mammals, birds, fish, turtles, and other vertebrates in the Raton, Uinta, Sand Wash, and Piceance Creek Basins. By mid-Tertiary times, spreading grasslands supported vast herds of grazing animals such as primitive horses, camels, and rhinoceroses. Many Pleistocene localities document the presence of mammoths, mastodons, musk oxen, horses, camels, and several kinds of carnivores like saber-toothed cats and giant bears.

3. Paleontological Resources at Risk

The fossil resources of Colorado have been collected and studied by paleontologists and hobby collectors alike for over 100 years. Because of the renewed interest in fossils sparked by modern media technology, these resources are vulnerable to many impacts, some beneficial, some harmful. Industrial activities in the form of landfills, sand and gravel quarries, oil and gas development, and other ground-disturbing actions create an urgent need to salvage and mitigate impacts to areas that have potentially significant paleontological resources. Unauthorized collection of vertebrate and other forms of important fossils poses a critical danger to the integrity of the data related to the study of past life. In sum, the need to protect our fossil resources on public land has reached a critical stage.

4. Major Accomplishments

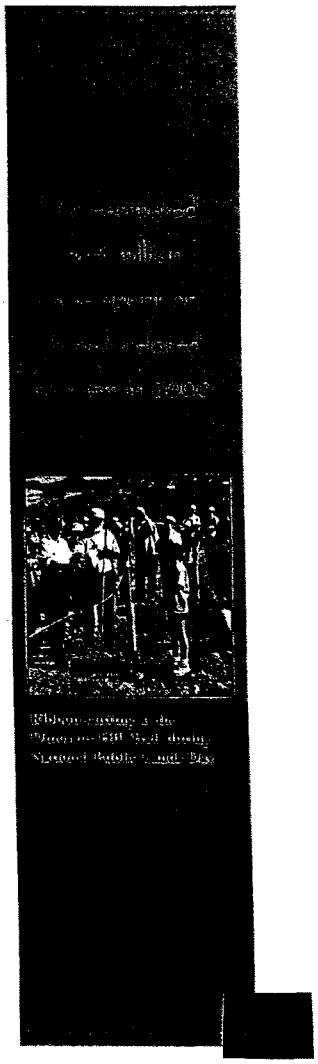
- Continued collection of specimens at risk in Garden Park Fossil Area.
- Continued collection of specimens at risk in Rabbit Valley Research Natural Area.
- Continued collection of specimens at risk in Sharrard Park Gas Field.
- Distributed and implemented 12 "Paleontological Resources Teaching Kits."
- Produced brochures, Web sites, and publications on the management of paleontological resources in Colorado.

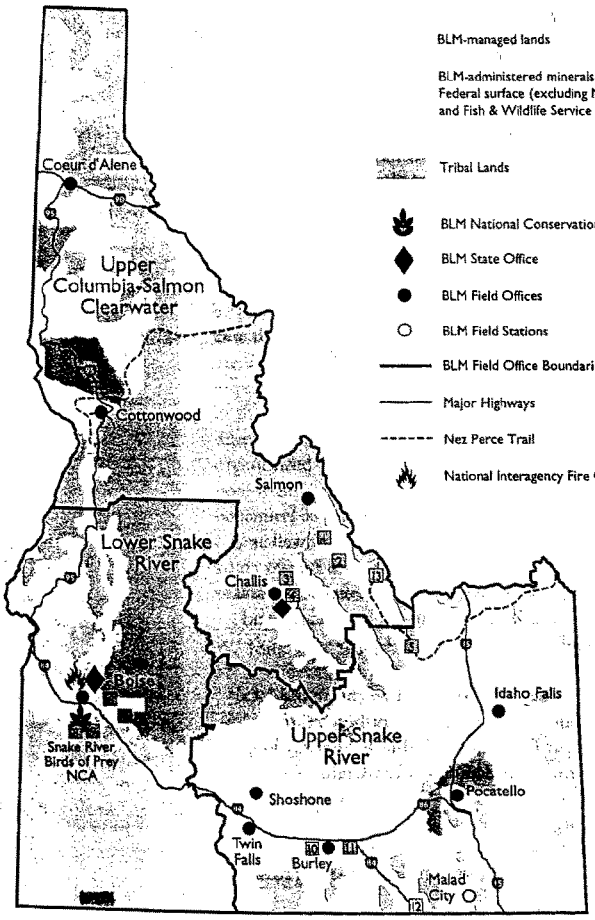
5. Existing Partnerships

- University of Colorado and the Museum of Western Colorado to curate paleontological collections and data.
- Denver Museum of Nature and Science for training of paleontology volunteers.
- Garden Park Paleontology Society for management of paleontological resources at the Garden Park Fossil Area and for curation and preservation at the Dinosaur Depot Museum.
- Western Interior Paleontological Society for research and projects to manage fossil insect collections from the Green River Formation.
- Western State College for curation of the "Morris the Saurus" *Apatosaurus* skeleton.
- Museum of Western Colorado and the City of Fruita for interpretive planning and development for, as well as management of, Dinosaur Hill Trail, Fruita Paleo Research Natural Area, Rabbit Valley Research Natural Area/Trail Through Time/Mygatt–Moore Quarry, and Split Rock Trail.
- A consortium of other Federal agencies, State and local agencies, museums, and travel/tourism bureaus to manage Dinosaur Diamond, a 550-mile highway loop through western Colorado and eastern Utah.

6. Economic Benefits

- There were 544,000 visits to facilities displaying fossils in 1997.
- About 40 percent of visits were by nonlocal or out-of-State visitors.
- An estimated $64 million was spent on fossil-related tourism in 2000.





Interpreted Cultural Sites

1. Clark's Campsite
2. Lewis and Clark Backcountry Byway
3. Challis Bison Jump
4. Bayhorse Historic Townsite Interpretive Wayside
5. Birch Creek Valley Prehistory
6. Boise City/Oregon Trail
7. Bonneville Point Oregon Trail
8. Celebration Park Petroglyphs
9. Halverson Lakes and Bar Placer Mining Community
10. Milner Site/Oregon Trail
11. Raft River Oregon Trail Ruts
12. California Trail/Boise Kelton Rc
13. Nez Perce Trail

Interpreted Paleo Sites

- Malm Gulch ACEC

IDAHO

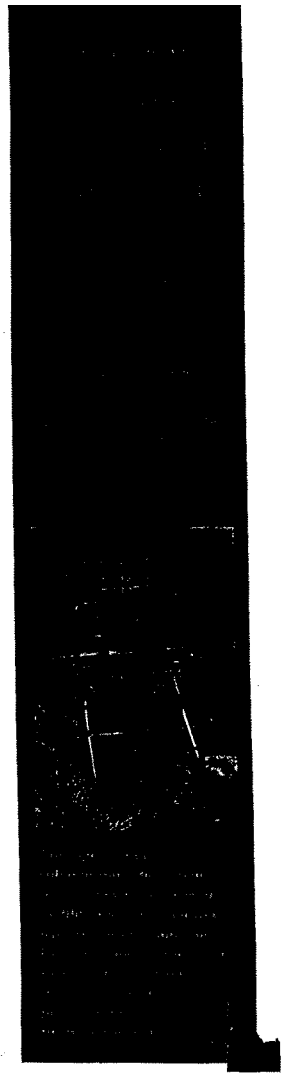
Statistical Overview

Acres of public land	11.9 million acres
Acres inventoried for cultural properties (FY 2000)	72,496 acres
Acres inventoried for cultural resources (to date)	1,746,091 acres
Cultural properties recorded (FY 2000)	811 properties
Cultural properties recorded (to date)	11,029 properties
Cultural Resource Use Permits in effect (FY 2000)	27 permits
National Register of Historic Places listings (to date)	21 listings
National Register of Historic Places contributing properties	823 properties
Section 106 class III undertakings (FY 2000)	302 undertakings
Section 106 data recovery projects (FY 2000)	24 projects
Section 106 data recovery properties (FY 2000)	24 properties
Interpreted places	14 places

Cultural Resources

1. Program Summary

Idaho BLM manages archaeological and historical sites that span human occupation from about 12,000 years ago to the present. Prehistoric sites managed by the BLM in Idaho include Paleo-Indian sites, Archaic and late prehistoric hunting and fishing camps, village sites, rock art, cemeteries, and game drive sites. Historic sites include mining districts, ghost towns,



railroad grades, homesteads, historic trails (including significant portions of the Lewis and Clark Trail and the Oregon Trail). Twenty-one individual properties and districts on BLM lands are listed on the National Register of Historic Places in Idaho. Nearly 1,750,000 acres of BLM lands in Idaho have been inventoried for cultural resources to date, and over 11,000 properties have been recorded.

Thirteen cultural properties have been interpreted and developed for public visitation. Among these are the Lewis and Clark Trail and Clark's Campsite, several sites associated with the Oregon and California Trails, the prehistory of Birch Creek Valley and the Challis Bison Jump, and several sites associated with Idaho's mining history.

2. State Cultural History

Various American Indian peoples over the last 12,000 years hunted and gathered resources in the richly diverse environments found within the present boundaries of the State. These peoples primarily focused on hunting large game animals until approximately 6000 B.C., when a gradually warming climate resulted in a more diverse subsistence base.

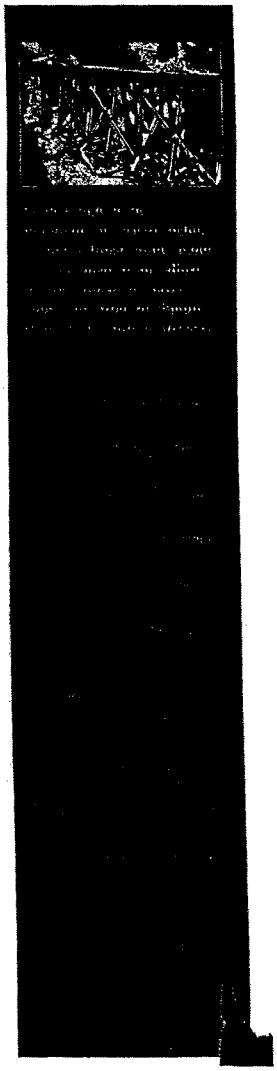
Between approximately 6000 and 1000 B.C., inhabitants followed wide-ranging, hunting and gathering subsistence practices based on the annual occurrence of plant, fish, and animal concentrations that were present in different areas of the State. After 1000–2000 B.C., the climate became cooler and was much the same as it is today. While subsistence patterns basically stayed the same, the introduction of the bow and arrow after 1000 B.C. and the introduction of the horse in the 18th century A.D. represent significant changes during the late prehistoric period in Idaho.

The historic period in Idaho begins with the Lewis and Clark Expedition in 1804, followed by the exploration and discoveries of the fur trade era, emigration and the founding of early Indian missions, and the earliest Euro-American settlements.

Settlement and territorial development of Idaho occurred between 1855–1890 with the initial Mormon settlements in eastern Idaho, followed by the gold rush, the establishment of Idaho as a Territory, the development of the mining industry, and the growth of agriculture. These activities led to conflicts

with American Indians, treaties, and the establishment of reservations. Then in 1890, Idaho became a State.

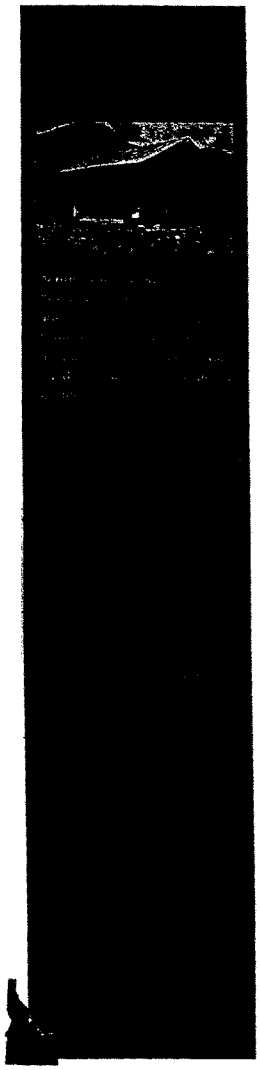
After 1890, Idaho saw continued growth in the mining and timber industries, homesteading and agricultural developments, the beginning of large-scale irrigation networks, and development in the Snake River Plain region. After 1904, the impact of the Carey Act, Reclamation Act, and other irrigation/reclamation efforts resulted in large-scale irrigation projects and caused a boom in agriculture and population growth. Also during this time, the national forest system and timber industry developed, recreation increased, and major flood control and hydropower projects were undertaken.



3. Cultural Resources At Risk

In general, sites on BLM lands in Idaho are being lost to surface collecting, vandalism, and looting in areas that are well-known for rich cultural deposits. Such areas include major river corridors, caves and rock shelters, well-known historic sites such as ghost towns and mining districts, and large natural material sources/quarries. Other factors affecting the loss of cultural resources in the State include off-highway vehicle use in areas containing site concentrations, heavy livestock use that overlaps with cultural deposits, and natural deterioration or erosion of significant structures or archaeological sites. Major sites that are being lost on BLM lands in Idaho include:

- Many rock shelter and cave sites in the State that can provide needed information on regional chronologies and subsistence patterns are being destroyed by illegal excavation.
- Rock art sites that hold special significance to local tribes are being vandalized and looted.
- Significant historic structures important to local historical societies and groups are falling down due to natural deterioration and vandalism.
- Significant sites important for their information potential to regional prehistory are being destroyed by concentrated livestock use. These sites are typically located near water sources that are being heavily used by livestock.



- Segments of National Historic Trails and historic travel routes throughout the State are being impacted by off-highway vehicle use.

4. Major Accomplishments

- Completed interpretive projects including a Nez Perce Trail auto route brochure, interpretive tour of Birch Creek valley, and interpretation of the Oregon and California Trails.

- Completed inventory and recording of various archaeological resources including rock art in the Black Canyon Wilderness Study Area, architectural recording of rare historic mill sites, archaeological inventory of portions of the Lewis and Clark Trail, inventory of the Birch Creek Springs area, global positioning system recording of historic trails and railroads in southern Idaho, and mapping of obsidian sources in southeastern Idaho.

- Completed site preservation activities, including protection of Native American values associated with the St. Joe Divide area, fencing of the Sandpoint Paleontology and Cultural Area of Critical Environmental Concern, acquisition of Oregon Trail sites, and stabilization of two significant historic homestead cabins.

- Developed a Web page for the cultural resource program.

- Developed a data-sharing agreement with the State Historic Preservation Office.

- Conducted research studies including ground-penetrating radar surveys in cooperation with the Natural Resources Conservation Service and pottery analyses of shards from previously recorded sites.

- Completed collections inventories for three sites in the Western Idaho Repository.

5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

There are eight federally recognized Indian tribes that claim rights to traditional lands in Idaho (Shoshone-Bannock Tribes, Shoshone-Paiute Tribes, Nez Perce Tribe, Kootenai Tribe of Idaho, Coeur d'Alene Tribe, Northwest Band of Shoshoni Nation, Confederated Salish and Kootenai Tribes, Kalispel Tribe of Indians). Prehistoric and historic sites managed by the BLM that are associated with American Indian heritage are of special interest to the tribes. On-the-ground protection and management of these sites is one of the main consultation issues addressed with the tribes.

Many historical societies throughout the State have interests in protecting and interpreting the history of Idaho. Topics important to these groups including mining, fur trading era and exploration, homesteading, early agriculture and ranching, wagon roads, and prehistoric sites.

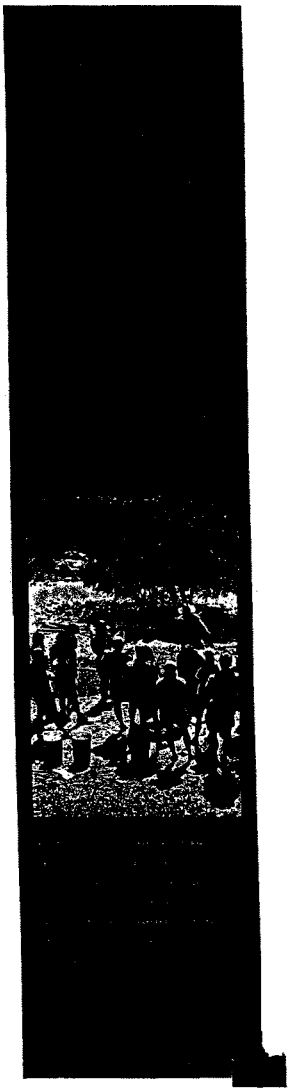
6. Existing Partnerships

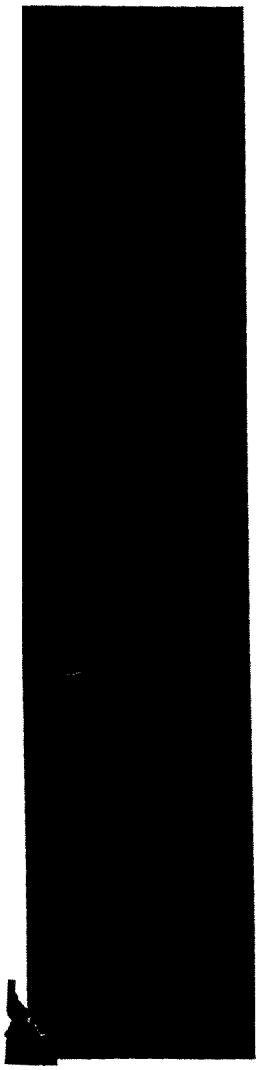
- Idaho State University for research projects, University of Alberta for a predictive model for buried sites along the Salmon River, University of Alaska for faunal analysis, College of Southern Idaho for school teaching trunks, and Boise State University for collections management, all through challenge cost-share agreements.

- Island Park Historical Society for an interpretive brochure, Archaeographics for archaeological inventory and interpretation, and the State of Idaho Land of the Yankee Fork Interpretive Center for interpretive signs and displays, all as challenge cost-share projects.

- University of Oregon and the U.S. Forest Service's Passport in Time program for volunteer and field school projects.

- Shoshone-Bannock Tribe for Chief Tendoy Cemetery and Shoshone-Paiute Tribes for consultation and site surveillance and monitoring through tribal partnerships and agreements.





7. Economic Benefits

For fiscal year 1999, BLM's Recreation Management Information System provides a conservative estimate of 51,360 visitor use days at cultural sites on BLM lands in Idaho. The value of these visits to the State's economy is estimated at $1,604,000.

In fiscal year 1999, 233,312 visitor use days were recorded for environmental education events and 106,733 visitor use days were estimated for interpretive exhibits. About a third of these days can be attributed to the cultural resource program, with the economic value of these programs estimated to be about $930,000.

The total annual economic benefit derived from cultural resources during fiscal year 1999 in Idaho was estimated at $2,534,000.

Paleontological Resources

1. Program Summary

Idaho manages 11.9 million surface acres, which accounts for 22 percent of the State's Federal acreage. BLM administers five Paleontological Resource Use Permits in the State each year. Permittees from the University of Michigan, Idaho State Museum, Kansas State University, and others collect and curate specimens primarily from the Snake River Plain. Idaho has one publicly interpreted area at Malm Gulch Area of Critical Environmental Concern, where huge fossil sequoia trunks are preserved in volcanic ash. Within this Area of Critical Environmental Concern, 2,643 acres are designated as a Research Natural Area.

2. State Paleontological History

Eastern Idaho's Snake River Plain was once covered by sedimen deposited in a series of lakes that waxed and waned over the pa 5 million years. Fossils from zebralike horses, camels, mastodons, hyenalike dogs, saber-toothed cats, water birds suc as swans and cormorants, tiny rodents, salamanders, frogs, and fish are plentiful in the sandy sediments. During the last ice a now-extinct native horses, camels, mammoths, mastodons, gia

sloths, and many smaller animals lived around the receding lakes. Their remains are found in caves that formed in the great sheets of lava that poured out across the landscape during Late Pleistocene geophysical upheavals.

Paleontological Resources at Risk

The fossils of fish, mammals, reptiles, and amphibians have been collected on the Snake River Plain by some of America's great museums, but now this area is a favorite of unauthorized collectors. Illegal removal of vertebrate fossils is eroding this area's potential to answer important research questions. Although Idaho has produced only a few fragmentary dinosaur specimens, fossils from the most recent chapters of geologic history are crucial in revealing how North America attained its present form and fauna.

4. Major Accomplishments

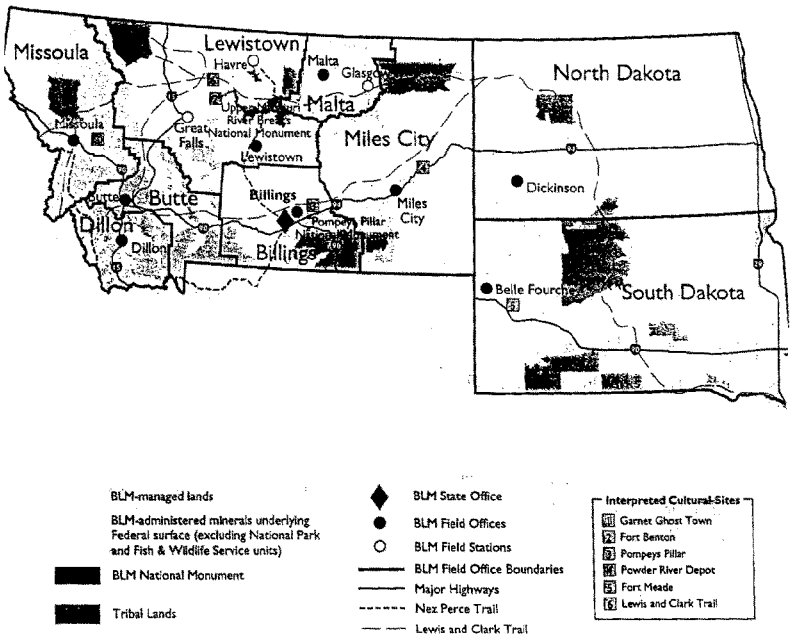
- Collected specimens at risk in Spider Cave.

5. Existing Partnerships

- Idaho State University Museum of Natural History.

6. Economic Benefits

Idaho's public lands are rich in environmental, historical, recreational, and economic values. They also contain culturally significant sites and other natural history attractions. Because of these attractions, it can be assumed that paleontologic resources contribute to the economic well-being of the State, but data from which the extent of the contribution can be determined are unavailable.


Missoula
Lewistown
Havre
Malta
Glasgow
Malta
Great Falls
Lewistown
Miles City
Dickinson
Butte
Dillon
Billings
Miles City
Billings
Belle Fourche
South Dakota
North Dakota
BLM-managed lands
BLM-administered minerals underlying Federal surface (excluding National Park and Fish & Wildlife Service units)
BLM National Monument
Tribal Lands
BLM State Office
BLM Field Offices
BLM Field Stations
BLM Field Office Boundaries
Major Highways
Nez Perce Trail
Lewis and Clark Trail
Interpreted Cultural Sites
1 Garnet Ghost Town
2 Fort Benton
3 Pompeys Pillar
4 Powder River Depot
5 Fort Meade
6 Lewis and Clark Trail

MONTANA

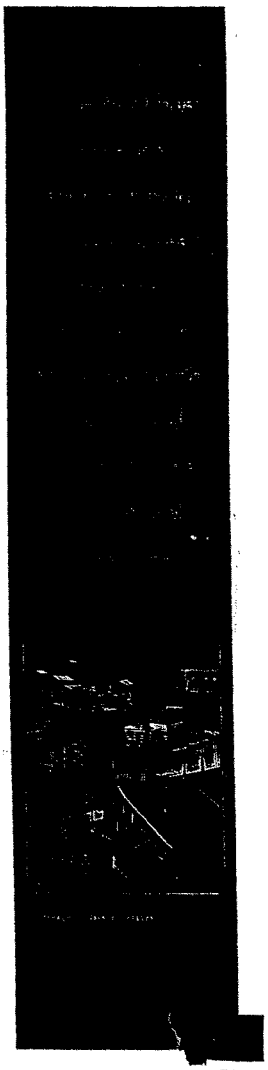
Statistical Overview

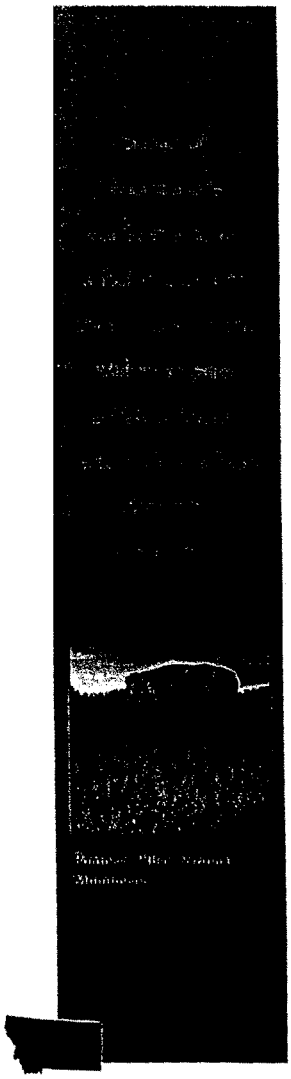
Acres of public land	8.1 million acres
Acres inventoried for cultural properties (FY 2000)	16,015 acres
Acres inventoried for cultural resources (to date)	1,208,177 acres
Cultural properties recorded (FY 2000)	137 properties
Cultural properties recorded (to date)	9,062 properties
Cultural Resource Use Permits in effect (FY 2000)	31 permits
National Register of Historic Places listings (to date)	16 listings
National Register of Historic Places contributing properties	28 properties
Section 106 class III undertakings (FY 2000)	477 undertakings
Section 106 data recovery, projects (FY 2000)	1 project
Section 106 data recovery, properties (FY 2000)	1 property
Interpreted places	6 places

Cultural Resources

I. Program Summary

Since 1975, the BLM has surveyed approximately 1.2 million acres, or approximately 15 percent of the public lands, in the three-State area of Montana, North Dakota, and South Dakota for cultural resources. A total of 9,062 cultural properties were recorded as a result of those surveys. Further, of that total, 16 sites/districts involving 28 individual properties are listed on





the National Register of Historic Places. BLM has also formally designated 17 heritage sites/landscapes as Areas of Critical Environmental Concern, comprising 31,925 acres and including large landscape areas important to Native Americans, as well as individual historic properties.

The Billings Curation Center was established in 1985 in partnership with the Bureau of Reclamation with limited funds and staff. Since 1985, we have added a curator to help manage and process the collections and have moved the Center to a secure environment and appropriate facilities at the new Montana State Office. This move also gave the Billings Curation Center an opportunity to expand our partnership relationships with Custer National Forest and the Bureau of Indian Affairs.

Several heritage site locations are interpreted for public use. These include: Fort Benton and Pompeys Pillar, which focus on the Lewis and Clark Expedition; Powder River Depot, which was a supply depot for Custer's trip to the Little Bighorn Battle; Garnet Ghost Town, which was an 1890s period gold mining town near Missoula, and Fort Meade, which was established subsequent to the Indian wars of 1875–1876 to provide protection for miners working in the Black Hills and was used until 1944. In addition to these substantive interpretive sites, there are many signed Lewis and Clark campsites and kiosks and interpretive signs at other locations having historical significance.

2. State Cultural History

Some of Montana's earliest known inhabitants left their mark at the Mill Iron site, a Paleo-Indian site radiocarbon dated to 9,500 B.C. These early people depended on hunting the large animals of the Pleistocene (ice age), such as mammoth and giant bison, using large, lanceolate-shaped projectile points.

The Paleo-Indian era gave way to the Archaic period about 5,500 B.C., coincident with changing climatic conditions and the hunting of modern bison. The Archaic period lasted until about A.D. 0 and is characterized by increased dependence on upland prairie living, communal bison hunting specialization, and a variety of notched and stemmed projectile point styles.

Although arid conditions seemed to prevail during the early part of the Archaic, a moderating climate led to greater use of

the open prairie by about 3,500 B.C. Tipi rings appear in archaeological sites from this period, and communal bison hunt sites and other open prairie sites dominate the archaeological record. The late prehistoric period lasted from A.D. 0 to the time that European trade goods appear in the archaeological record at about A.D. 1700. During the late prehistoric period, people followed a highly specialized hunting and settlement strategy. Communal and solitary bison hunting, along with focused procurement of other upland game, dominated the subsistence regime of these people.

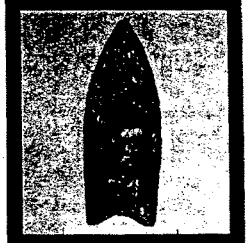
After about A.D. 1700, the introduction of European trade goods such as beads, guns, blankets, and metal artifacts mark the beginning of the Protohistoric period. The introduction of the horse was the most dramatic event of this period. The horse increased mobility, completely changing hunting, warfare, and settlement strategies among the Plains Indian groups.

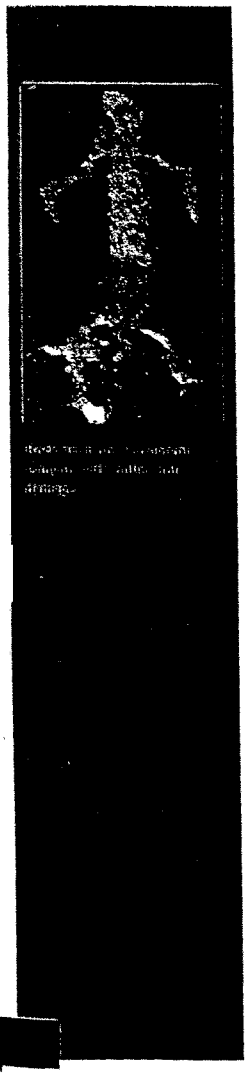
The historic period lasted from 1730 to the early 20th century and covered early Euro-American exploration, the fur trade, westward expansion, the Indian wars, development of the livestock and mining industries, and homesteading in Montana and the Dakotas. Early explorers included Le Verendrye (1734) and Lewis and Clark (1803–1806). A flourishing fur trade economy followed these explorations (1812–1860).

Westward expansion in the mid-19th century brought the livestock industry, which was further encouraged by an influx of miners following gold and silver discoveries in the 1860s. Increasing immigration fueled conflicts with American Indian groups, leading to the Indian wars of 1875–76. The railroad successfully traversed Montana by 1883, helping to set the stage for willing homesteaders to migrate to Montana in the early 20th century (1900–1920).

3. Cultural Resources At Risk

Grazing, mining, and other land use practices during the last 100 years have disturbed, destroyed, or altered heritage resources on BLM-managed lands in Montana. Natural processes such as wind and water erosion have also contributed to the deterioration of our heritage resource base. In addition, use of the public lands by a segment of the recreating public has adversely affected some archeological and historical properties through intentional





vandalism and/or by thoughtless indifference. Many rock art sites have been damaged by bullet holes, historic graffiti, or inappropriate enhancement or preservation methods. Prehistoric camp, bison kill, and processing sites are often the target of vandalism or looting by artifact hunters looking for projectile points, pottery, unusual artifacts, or faunal remains. Tipi ring and other stone and wood structures and features, such as vision quest, hunting blind, war lodge, or cribbed-logged structures, have also been subjected to looting and vandalism. At early mining and Euro-American settlement period sites, wood siding from standing structures and equipment from mines have been removed without authorization.

BLM in Montana has initiated a number of protection programs for archaeological and historical sites. These initiatives include citizen monitoring programs, working with law enforcement, posting signs at archaeological properties, and stabilizing and restoring historic properties, such as those at Garnet Ghost Town. The task of protection warrants a more aggressive program; however, without additional resources or a shifting in priority workload, it cannot be done effectively. Measures undertaken to date have been most successful where BLM has a visible presence.

4. Major Accomplishments

- Developed partnerships with institutions and others to investigate and protect cultural resources in Montana and the Dakotas, resulting in more than 20 proactive cultural resource investigations over 15 years.

- Investigated the Mill Iron site, a Paleo-Indian site dated to 9,500 B.C., through a cooperative agreement with the University of Wyoming. Published studies make this the earliest, well-documented Paleo-Indian site on public lands in Montana and an important contribution to the study of the earliest human groups on the continent.

- Analyzed and reported on materials excavated from Lookout Cave, which was excavated 30 years ago, through a challenge cost-share agreement with a local archaeologist.

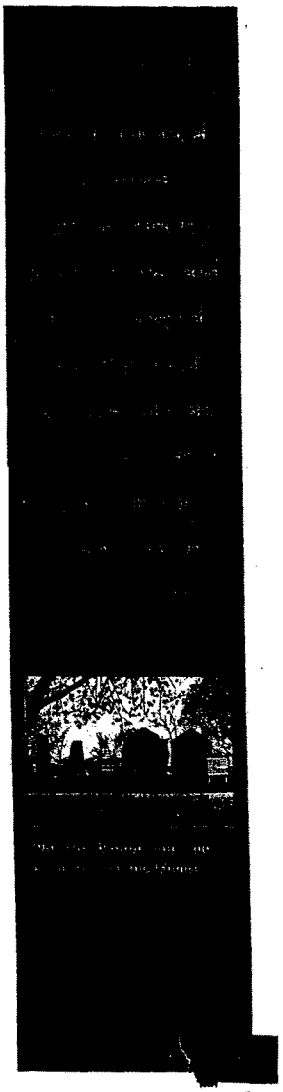
- Protected the Marias bison kill site, which is eroding from the banks of the Marias River and subject to vandalism. The partnership is framed within a long-term assistance agreement between BLM and Montana State University.

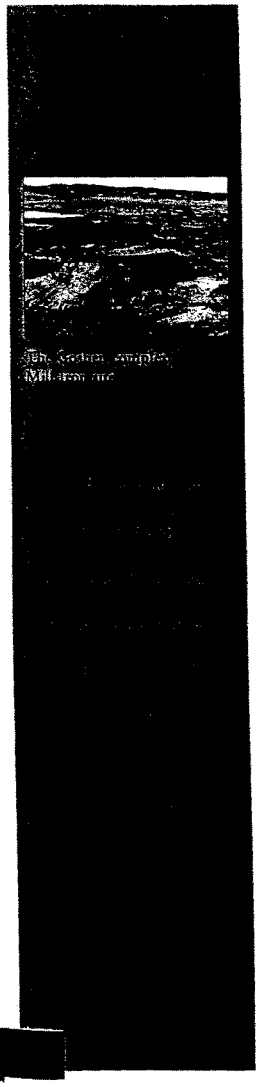
- Established procedures for automated data-sharing, through agreements with the Montana, North Dakota, and South Dakota State Historic Preservation Offices, to facilitate management of cultural resource data and the development of historic preservation plans.

5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

Montana and the Dakotas are the home to 14 distinct tribes within 19 reservations. These tribes regard land as sacred and hold certain beliefs and reverence toward many named and unnamed landforms in the three-State area. The Sweet Grass Hills, for example, are sacred to the Blackfeet, Chippewa-Cree, Gros Ventre, Salish, Kootenai, and Assiniboine Tribes. Some of these tribes view the entire Sweet Grass Hills area as a sacred refuge, a source of spiritual powers, and a place for rites of purification, fasting, vision seeking, and spiritual renewal. There are also specific tribal stories associated with the Sweet Grass Hills. The Blackfeet have a story of how the hills were formed with a piece of Chief Mountain and placed on the lands by the Great Spirit, for example, while a Chippewa-Cree story considers the Sweet Grass Hills as the place where the Creator decided the future of Earth and man.

Interest in BLM's cultural resources is widespread and includes individuals from different ethnic and occupational backgrounds. Local historical societies, preservation associations, and archaeological and historical groups take an active interest in the cultural resources on public lands. The Lewis and Clark Expedition has stimulated national and statewide interest in the bicentennial of the event scheduled for 2003–2006. Montana will be a focal point of the event, with individuals and public organizations assisting in planning for the celebration. BLM is also fortunate to have a group of volunteers who patrol public lands and monitor sensitive archaeological sites. Their assistance helps curb and identify illegal activities on the public lands.





6. Existing Partnerships

- Museum of the Rockies, Montana State University, to develop archaeological and paleontological investigations of all kinds. Current task orders concern paleontological collection management and archaeological documentation at several sites.

- University of North Dakota to study American Indian rock art at Pompeys Pillar, which is also an important historic site recording William Clark's signature from th Lewis and Clark Expedition.

- Garnet Preservation Association, a private, local preserv tion group, to stabilize and restore historic buildings at the 1890s gold mining town of Garnet. The town now serves as an interpretive site with a visitors station and other facilities.

- Pompeys Pillar Association for assisting with the manag ment and development of Pompeys Pillar and for supporting a new visitors center and the Lewis and Clark bicentennial celebration.

- Local, State, tribal, and Federal partners for the Lewis and Clark Bicentennial Celebration. BLM and its par ners share the common goal of making this celebration landmark event and establishing a long-term legacy at specific interpreted locations. These partnerships will benefit the BLM heritage program through better pres vation, understanding, and interpretation of Lewis an Clark campsites in Montana and through consideratic of tribal views on the expedition.

7. Economic Benefits

The public is interested in visiting heritage resources and tha interest results in economic benefits. In Montana, our four r visited historic resources are as follows: Fort Meade, with 50,289 visits; Pompeys Pillar, with 45,000 visits; Garnet Gh Town, with 23,231 visits, and Fort Benton Visitors Center, 4,625 visits. Receipts from Fort Meade, Pompeys Pillar, and Garnet Ghost Town have resulted in additional funds to sup

those facilities, offsetting the cost of their management. In addition, the communities and the State economy benefit because visitors need lodging, food, goods, and services while visiting these sites.

Paleontological Resources

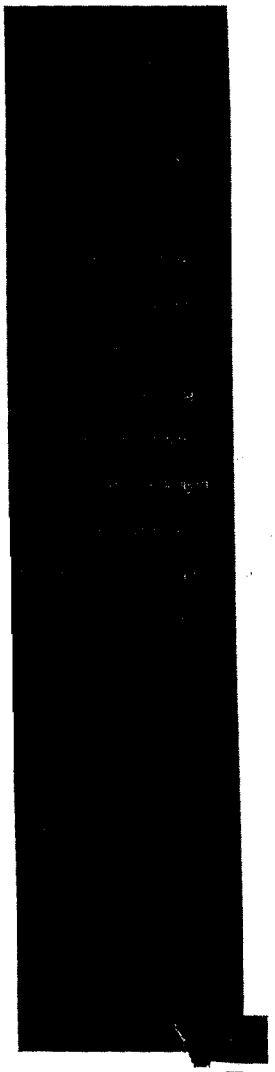
1. Program Summary

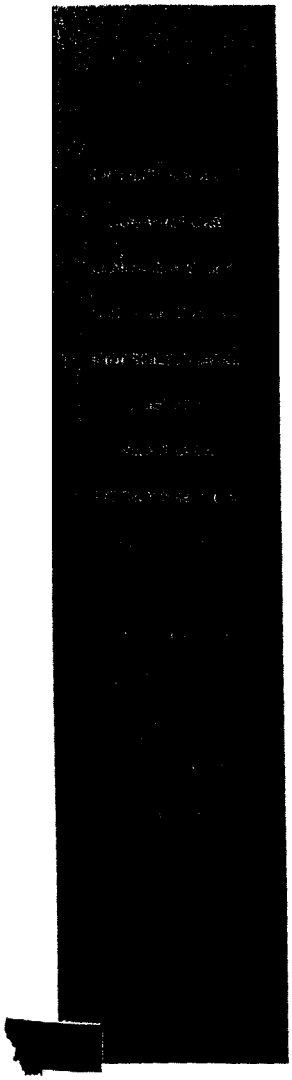
Montana BLM manages approximately 8 million acres of public land in the Montana, 59,000 acres of public land in North Dakota, and 279,700 acres of public land in South Dakota. BLM administers about 20 Paleontological Resource Use Permits annually. Researchers from the Museum of the Rockies; University of California, Berkeley; Carnegie Museum; and other major institutions add hundreds of specimens from BLM lands to their collections each year. While there are no special management areas specifically for paleontological resources, BLM maintains a strong working relationship with the Museum of the Rockies in Bozeman so that fossils from public lands can be collected, preserved, studied, and displayed. Montana has five Areas of Critical Environmental Concern that were established to recognize dinosaurs and other fossils.

2. State Paleontological History

Montana is a place where most of its geologic history is on display in the mountain ranges, badlands, and deep canyons. Ancient rocks laid down in the oceans contain the fossils of invertebrate animals and fish revealing what life was like 350 million years ago. Until about 150 million years ago, Montana was largely under oceans that advanced and retreated, but left little record of land life.

By the middle of the age of dinosaurs, the oceans had retreated, and Montana had become home to the giant dinosaurs popularly depicted in recent movies, TV documentaries, and books for adults and children alike. The controversy about dinosaur extinction continues to play out based on rocks and fossils from the famous Hell Creek Formation in northeast Montana. The modern study of dinosaur eggs, nests, and behavior has its basis in specimens from Montana as well.





Montana also has an excellent record of mammals and other small vertebrates and plants that lived after the dinosaurs. In the southwest corner of the State, deposits derived from volcanic ash preserve mammals and other small vertebrates from about 25–30 million years ago.

3. Paleontological Resources at Risk

Montana has many important areas where dinosaurs, early mammals, and other small fossils may be collected. Unfortunately, public lands in Montana often occur in scattered tracts of badlands with very poor access; patrolling them is difficult. Unauthorized commercial collectors are very active in northern and eastern Montana, removing not only dinosaur bones, but also rare and potentially important invertebrate fossils. Most problems are the result of collectors not knowing that they are on BLM-administered land; others reflect the rapidly growing dollar values of dinosaurs bones and other attractive fossils. Dinosaur tourism also becomes a threat to the integrity of fossil sites when tour leaders stray onto public lands or lead tours to view specimens in the ground, thus compromising the confidentiality of ongoing work by legitimate researchers.

4. Major Accomplishments

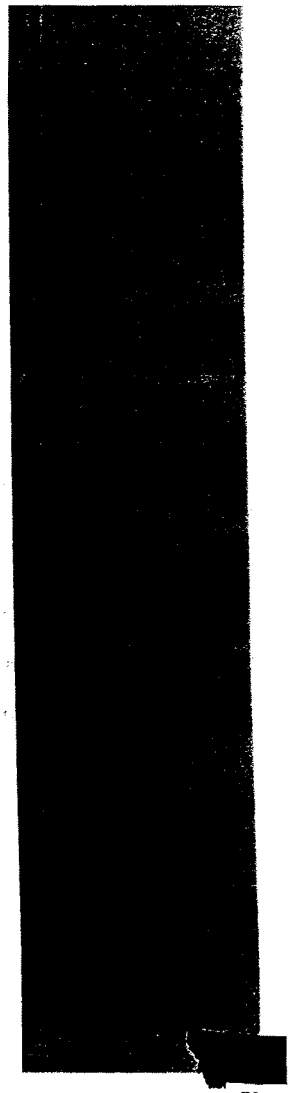
- Established five Areas of Critical Environmental Concern for world-class dinosaur sites.
- Protected areas where dinosaur skeletons and eggs occur
- Recovered a complete skeleton of the duckbilled dinosaur, *Pachylophosaurus*, with a skeleton of a gar fish inside the carcass.
- Cleaned up and restored areas where vandalism and illegal collecting occurred.
- Conducted law enforcement training for rangers, Fish and Wildlife Service, and State/local officers.

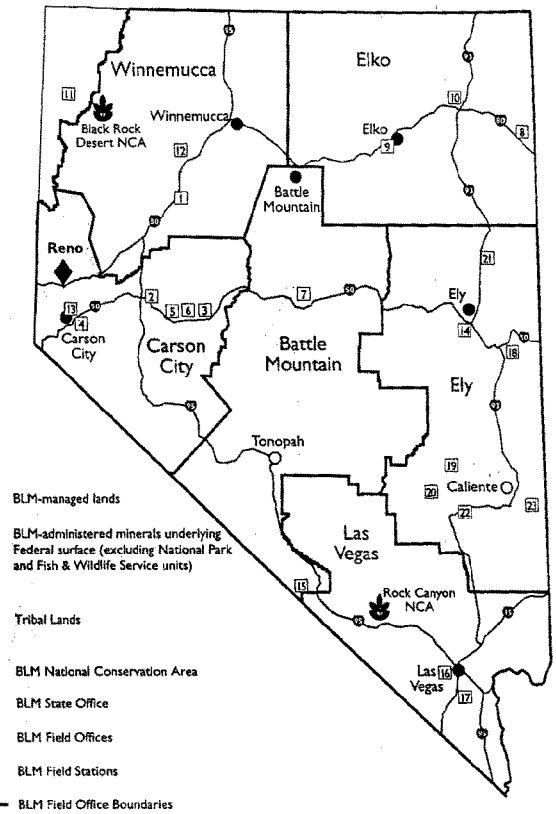
5. Existing Partnerships

- Cincinnati Museum for excavation, storage, and display of specimens from BLM-administered lands and for educational programs.
- Museum of the Rockies in Bozeman for excavation, curation, and educational programs.

6. Economic Benefits

Not available.





Interpreted Cultural Sites

1. Martden House Museum/Lovelock Cave Backcountry Byway
2. Grimes Point/Hidden Cave Archaeological Area
3. Rock Creek Stage/Telegraph Station
4. Silver Saddle Ranch
5. Sand Springs Pony Express Station
6. Cold Springs Pony Express Station
7. Hickison Summit Petroglyphs
8. Wendover-Hastings Cutoff
9. Southfork Dam-Hastings Cutoff
10. California Trail Backcountry Byway
11. Stevens Camp/High Rock Canyon-Lassen-Applegate Trail
12. Imlay-Lassen-Applegate Trail
13. Virginia City-Comstock National Historic Landmark
14. Ward Charcoal Ovens/Cemetery/Townsite
15. Rhyolite Historic Area
16. Red Rocks National Conservation Area
17. Sloan Petroglyphs
18. Baker Village Site
19. White River Narrows P
20. Mt. Irish Rock Art Site
21. Schellbourne Pony Expr
22. Crystal Wash Rock Art
23. Panaca Summit Charcoa

NEVADA

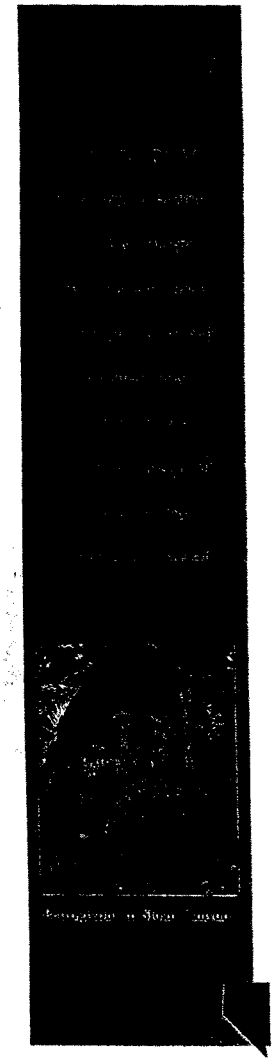
Statistical Overview

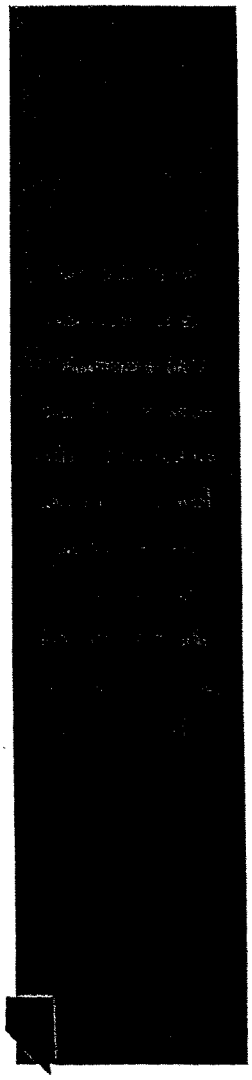
Acres of public land	47.8 million acres
Acres inventoried for cultural properties (FY 2000)	61,605 acres
Acres inventoried for cultural resources (to date)	1,767,604 acres
Cultural properties recorded (FY 2000)	737 properties
Cultural properties recorded (to date)	38,004 properties
Cultural Resource Use Permits in effect (FY 2000)	64 permits
National Register of Historic Places listings (to date)	30 listings
National Register of Historic Places contributing properties	236 properties
Section 106 class III undertakings (FY 2000)	348 undertakings
Section 106 data recovery, projects (FY 2000)	13 projects
Section 106 data recovery, properties (FY 2000)	26 properties
Interpreted places	23 places

Cultural Resources

1. Program Summary

Nevada BLM manages some of the most important and best preserved prehistoric and historic archaeological sites in the American West. These sites span the entire range of human occupation in the New World, from 13,000 years ago to the present. They include properties as diverse as Paleo-Indian mammoth kill sites, Archaic hunting camps, giant ground figures





(intaglios), pueblo ruins, rock art, ghost towns, historic ranches, and numerous historic trails and wagon roads such as the Pony Express Trail and the California Trail. Thirty individual properties and districts are listed on the National Register of Historic Places, and one is a National Historic Landmark. About 1,767,604 acres of Nevada public land have been inventoried for cultural resources and over 38,000 sites recorded. Twenty-three of these have been interpreted for public visitation, including rock art, historic trails, and Pony Express sites.

Nevada BLM Areas of Critical Environmental Concern designated entirely or partly to provide special management attention to protect cultural resources include High Basins, Rhyolite, and Sloan Canyon. Congress has designated two BLM-managed National Conservation Areas in Nevada: Red Rocks Canyon and High Rock Canyon–Black Rock Desert Immigrant Trail. Both of these contain numerous significant historic and prehistoric cultural properties.

2. State Cultural History

Cultural resources in Nevada represent prehistoric and historic cultures and archaeological regions (Fremont, Anasazi, Northwest Plateau, Great Basin, Southern California Desert, and California Sierra) that span the entire history of human occupation in North America. This diversity of cultures ranges from American Indian hunters and gatherers through village-dwelling agriculturalists, and includes the historic and modern developments of the 19th and 20th centuries. Nevada BLM manages large numbers of significant sites related to Native peoples, as well as to historic pioneer and immigrant trails, mining, ranching, and railroads.

In Nevada, the prehistoric period covers human habitation in the Great Basin dating back some 12,000 years and stretching to the early 1800s. The tools, weapons, and dwellings of the prehistoric Paiute, Shoshone, and other Indian groups testify to these peoples' remarkable adaptability and to that of the people who came before them. Significant prehistoric sites in Nevada include hundreds of dry caves that preserve textiles, food remains, and wooden artifacts usually lost in other sites; numerous rock art sites; and numerous Anasazi and Fremont agricultural and pueblo sites. Among the archaeological treasures associated with these sites are a wealth of stone artifact numerous ancient baskets, and extensive panels of rock art.

The historic period in Nevada generally began with the arrival of trappers and immigrants in the early 1800s and continues through the boom-and-bust cycle of Nevada's mining camps to the present day. Historic resources include remains such as old bottles, weapons, and tools, as well as buildings and other structures, important trails, and mining districts. Historic photographs and written accounts of western life supplement the archaeological evidence and help to bring the period alive, both for scholars and the modern public. Significant historic sites in Nevada include the remains of numerous mining towns, camps, and mine works; Pony Express stations; and immigrant trails.

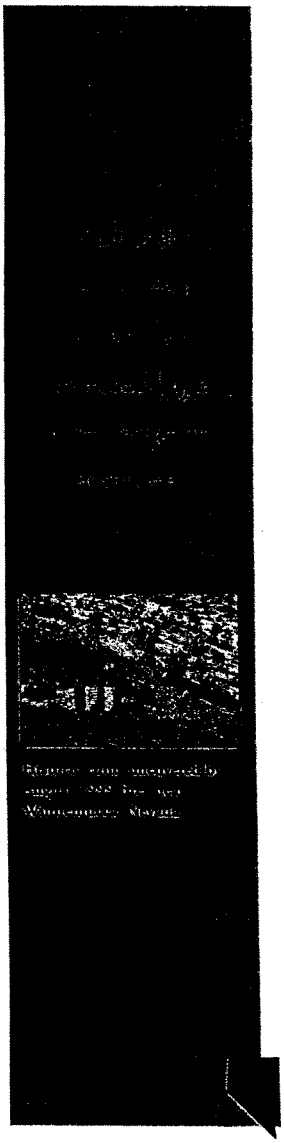
Cultural resources in Nevada also include numerous traditional cultural properties that are significant to Native American tribes and other groups. Spirit Mountain in southern Nevada has been listed on the National Register of Historic Places as a significant traditional cultural property.

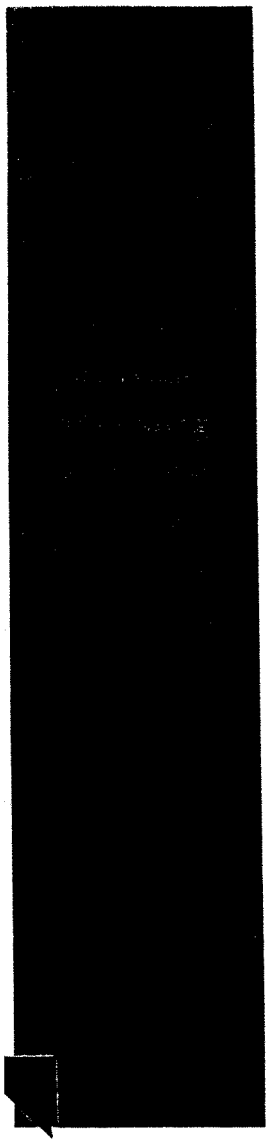
3. Cultural Resources At Risk

Cultural resources in Nevada are affected by a wide range of activities. Rock art sites and historic cemeteries are being vandalized. Many caves and rock shelters are being systematically looted and illegally excavated. Native American traditional use sites, as well as standing historic and prehistoric structures, are being affected by catastrophic wildfires and natural erosion. Illegal collecting is taking place on many open prehistoric sites, as well as on numerous historic mining sites. Recreational activities and heritage tourism are also taking their toll on sites as people are unknowingly abusing historic trails, rock art sites, and other remnants of the past.

4. Major Accomplishments

- Completed five tribal data-sharing agreements.
- Initiated statewide data automation with a BLM/ State Historic Preservation Office data management agreement.
- Completed interpretive projects at Silver Saddle Ranch and the Baker Village Site; completed Crystal Wash Rock Art brochure and Pony Express Trail driving guide.





- Nominated the Pah Rah High Basins Petroglyph District as an Area of Critical Environmental Concern.
- Conducted Pony Express site condition survey.
- Completed Sloan Canyon Petroglyph Management Plan.

5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

There are numerous tribes having an interest in cultural resources on BLM-managed lands in Nevada:

> Shoshone Tribes: Duck Valley Shoshone-Paiute Tribal Council; Duckwater Shoshone Tribe; Ely Shoshone Tribe; Te-Moak Tribe of Western Shoshone; Battle Mountain Band of the Te-Moak Band of Western Shoshone; Elko Band of the Te-Moak Tribe of Western Shoshone; South Fork Band Council of the Te-Moak Tribe of Western Shoshone; Wells Band of the Te-Moak Tribe of Western Shoshone; Yomba Shoshone Tribe; Timbisha Shoshone Band.
>
> Paiute Tribes: Fort McDermitt Tribal Council; Pahrump Paiute Indian Tribe; Lovelock Paiute Colony; Pyramid Lake Paiute Tribe; Summit Lake Paiute Tribe; Walker River Paiute Tribe; Moapa River/Paiute Tribe; Yerington Paiute Tribe.
>
> Other Tribes: Goshute Tribal Council; Washoe Tribal Council; Reno-Sparks Indian Colony; Winnemucca Colony of Paiute and Shoshone Indians; Fallon Paiute-Shoshone Tribe; Ft. Hall Shoshone-Bannock Tribe.

Other groups potentially interested in BLM's cultural resources include descendants of the Hispanic, Basque, Chinese, and Japanese peoples who worked and lived on Nevada's public lands in the past. Various amateur and professional archaeological groups, historical societies, and others with an interest in the past also may find BLM's cultural resources of importance.

6. Existing Partnerships

- University of Nevada, Las Vegas, for rock art management and University of Nevada, Reno, for historic and prehistoric archaeology field schools;

Hamilton College for Paleo-Indian research; and Great Basin College for prehistoric archaeology field schools in Elko.

- Nevada State Museum for long-term curation, museum exhibits, and basic research; American Museum of Natural History for interpretation of Hidden Cave; Marsden House Museum for management of Lovelock Cave; and Churchill County Museum for management of Hidden Cave.
- Washoe Tribe and Pyramid Lake Paiute Tribe for data sharing.
- Nevada State Historic Preservation Office for data automation.
- Desert Research Institute for paleoenvironmental research and Beta Mu for archaeological research.
- Society for California Archaeology for rock art interpretation, Nevada Historical Society for archival research, Oregon-California Trail Association for historic trails interpretation and management, Comstock Cemetery Foundation for cemetery management of the Comstock National Historic Landmark, Friends of Sloan Petroglyphs for management of the Sloan site and rock art in Clark County, Old Spanish Trail Association for historic trails research, Great Basin Natural History Association for management of the Baker site, and Nevada Archaeology Association for rock art management and public involvement.
- Nevada Division of State Parks for management of Ward charcoal ovens and Great Basin National Park for interpretation of the Baker site.
- Nevada Mining Association for historic mining interpretation.

7. Economic Benefits

There is no direct evidence of the economic benefits of heritage tourism and other recreational uses of cultural resources from BLM-managed lands in Nevada.

Paleontological Resources

1. Program Summary

The BLM manages nearly 48 million acres of public land in Nevada, comprising 68 percent of the State's land base. Approximately five Paleontological Resource Use Permits are active each year in the State. These permits involve university students, volunteers, and professional paleontologists conducting all aspects of research associated with the study of fossils.

Nevada BLM has established one Area of Critical Environmental Concern to recognize the fossils of the Stewart Valley area. This area contains finely detailed botanical fossils, delicate remains of fossil fish, and extinct mammals. Researchers from the University of California, Berkeley; the University of Nevada, Reno; and the Nevada State Museum in Las Vegas participate in the study of Nevada's fossil fauna.

2. State Paleontological History

Nevada has a tortured geologic history. Some of the rocks now exposed on its surface are among the oldest on Earth. For much of its history, Nevada was an area of volcanoes spewing out ash and other debris. During its long geologic history, Nevada was covered several times by oceans and inland seas containing trilobites, corals, and other exotic invertebrates, and later was home to primitive fish and large ichthyosaurs (marine reptiles that resembled dolphins) and other swimming reptiles.

The basin and range landscape of Nevada is the result of millions of years of violent activity in the Earth's crust, which eventually created the distinctive pattern of mountain ranges and valleys in the State. More recently, huge lakes occupied the spaces between the mountain ranges where Ice-Age animals and the environment looked very much like the African savannas of 50 years ago.

3. Paleontological Resources at Risk

Nevada's paleontological resources are being lost primarily to the natural processes of weathering and erosion. However, the State's population is growing faster than any other State in the nation. As towns and cities expand, they reach Federal land that surrounds all of Nevada's major cities. As a result, planners and

developers in Las Vegas, Reno, Sparks, Henderson, and Carson City look to BLM land as they deal with the pressures brought by this rapid growth. As these areas grow, public uses of the land will increase, bringing recreational and other kinds of uses to areas that have potentially important fossil values.

4. Major Accomplishments

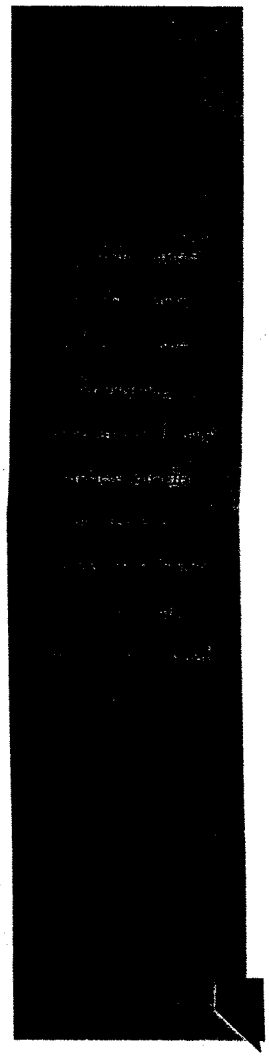
- Collected Ice-Age fossils of the giant short-faced bear, American cheetah, horses, camels, and more than 50 other species, which were estimated to be as young as 9800 years, in Mineral Hill Cave.
- Collected a mastodon skeleton, which was discovered by local residents, with the assistance of the University of Nevada, Reno.
- Published the "Trilobite Trail" brochure (Caliente Field Office).
- Salvaged a mammoth skeleton in the Black Rock Desert with the assistance of the Desert Research Institute.

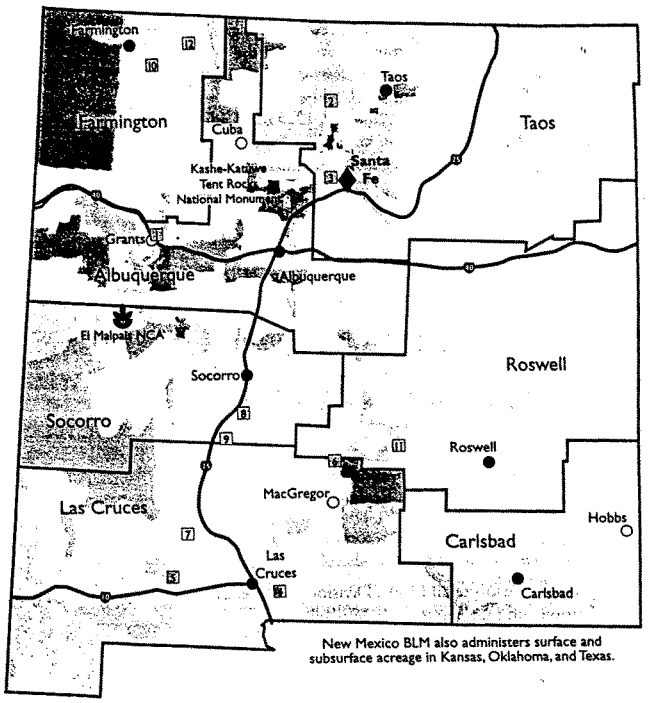
5. Existing Partnerships

- Desert Research Institute and Utah Division of Minerals for excavation and interpretation of Mineral Hill.
- Keck Museum for curation and Carson City mammoth site excavation.
- University of Nevada, Reno, for Black Rock mammoth research.
- San Bernardino County Museum for Pleistocene ground sloth research.
- U.S. Geological Survey for mapping.
- Northeastern Nevada Museum for a mammoth exhibit.

6. Economic Benefits

Not available.





BLM-managed lands

BLM-administered minerals underlying Federal surface (excluding National Park and Fish & Wildlife Service units)

BLM National Monument

Tribal Lands

BLM National Conservation Area

BLM State Office

BLM Field Offices

BLM Field Stations

BLM Field Office Boundaries

Major Highways

Interpreted Cultural Sites

1. Casamero Chaco Outlier
2. Ojo Caliente Pueblos: Hupovi and Posi
3. La Cieneguilla Petroglyphs
4. Dripping Springs
5. Fort Cummings
6. Three Rivers Petroglyph Site
7. Lake Valley Townsite
8. Fort Craig
9. Camino Real International Heritage Center
10. Twin Angels Chaco Outlier
11. Rio Bonito National Petroglyph Trail
12. Navajo Pueblitos Group:
    - Simon Ruin
    - Frances Ruin
    - Shaft House
    - Crow Canyon Site
    - Crow Canyon Petroglyphs
    - Largo School Ruin
    - Hooded Fireplace Site
    - Tapacito Ruin
    - Split Rock Ruin

NEW MEXICO

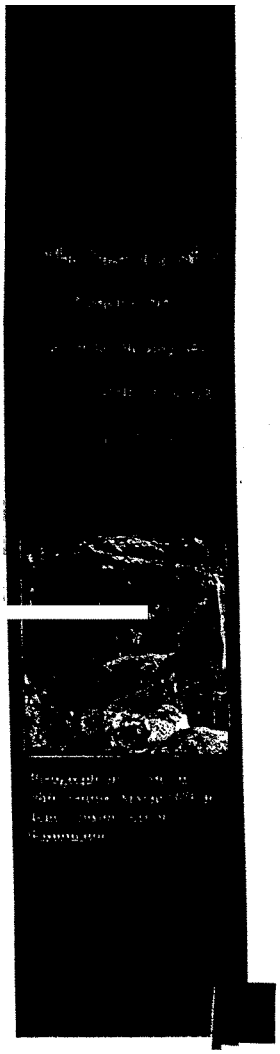
Statistical Overview

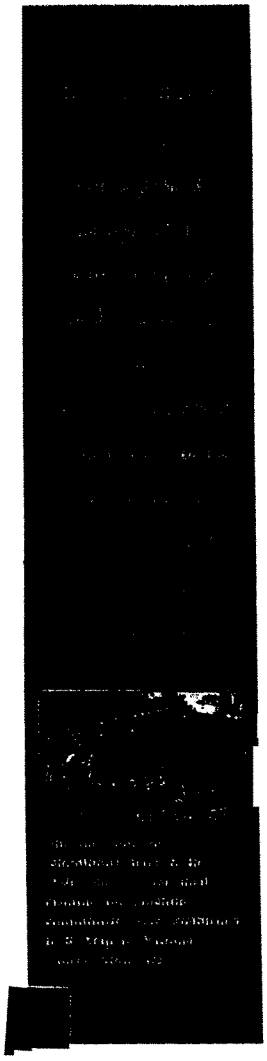
Acres of public land	12.8 million acres
Acres inventoried for cultural properties (FY 2000)	37,489 acres
Acres inventoried for cultural resources (to date)	1,214,883 acres
Cultural properties recorded (FY 2000)	866 properties
Cultural properties recorded (to date)	30,231 properties
Cultural Resource Use Permits in effect (FY 2000)	85 permits
National Register of Historic Places listings (to date)	27 listings
National Register of Historic Places contributing properties	127 properties
Section 106 class III undertakings (FY 2000)	2,548 undertakings
Section 106 data recovery, projects (FY 2000)	10 projects
Section 106 data recovery, properties (FY 2000)	31 properties
Interpreted places	12 places

Cultural Resources

I. Program Summary

The history of American archaeology is inexorably linked to New Mexico. From the discovery and verification of Paleo-Indian sites at Clovis and Folsom, New Mexico, to the landmark studies on archaeological chronology and stratigraphy, this State has been at the forefront of American archaeology. Because of its numerous prehistoric populations and the high visibility of





sites in the desert, New Mexico yields the densest concentration of archeological sites in the United States. On average, one site is found on every 40 acres of public lands in New Mexico. Approximately 1,000 newly recorded BLM sites are added yearly to a total that now exceeds 30,000.

BLM's cultural resource management program in New Mexico is well-balanced between project-oriented compliance work and proactive outreach and education initiatives. New Mexico frequently leads the nation in the number of Federal undertakings authorized each year, often in the 2,500- to 3,000-project range. This is due to the presence of coal, oil and gas, potash, helium, uranium, and copper reserves in New Mexico and Texas. At the same time, New Mexico has aggressively pursued the use of assistance agreements and challenge cost share agreements to leverage funding for proactive program developments. Proactive areas of emphasis include developing major traveling exhibits; expanding partnership and training opportunities by forging links to our colleagues in Mexico's National Institute of Anthropology and History; working in partnership with the State Monuments division to plan, staff, and operate the Camino Real International Heritage Center; and underwriting the costs of developing new Project Archaeology lesson plans, bilingual materials, and courses for New Mexico. In addition, New Mexico BLM has adapted the strategy of packaging and promoting groups of like sites. Some of the featured site types have included: 1) historic military forts; 2) El Camino Real de Tierra Adentro; 3) historic mining towns; 4) rock art sites; 5) Chacoan Outliers; 6) Navajo Pueblitos; 7) historic homesteads; 8) Chama Valley protohistoric pueblos; and 9) Galisteo Basin pueblos south of Santa Fe.

2. State Cultural History

New Mexico has a rich, deep, and well-preserved cultural history that places it in the center of cutting edge research in American archaeology. Two of the most famous Paleo-Indian sites, the Folsom and Clovis sites, occur in the State. The Paleo-Indian cultures—often recognized by their elaborate stone blades—existed from about 10,000 to 5500 B.C. Sites from these mammoth and bison hunters are well-known in Eastern New Mexico, and are found in central and western New Mexico as well.

During the subsequent Archaic period (5500 B.C. to A.D. 1) hunters and gatherers adapted to changing environmental

conditions and the extinction of the large mammals of the earlier era. The adoption of agriculture occurred at different rates throughout the Southwest and happened quite rapidly during the middle Archaic at certain locations. Archaic tool kits included smaller projectile points, atlatls, manos, metates, pestles, mortars, and nets and traps. These sites are found in caves, rock shelters, canyon bottoms, springs, canyon heads, and sand dunes in close proximity to a variety of plant resources.

Archaeologists divide the time after A.D. 1 into several periods, marking the development of regional agricultural societies:

A.D. 1–900
Ancestral Pueblo (Basketmaker II to Pueblo I)
Anasazi and Mogollon appear, with distinctive architectural, ceramic, food processing technologies; bow and arrow and large, pit-house villages appear.

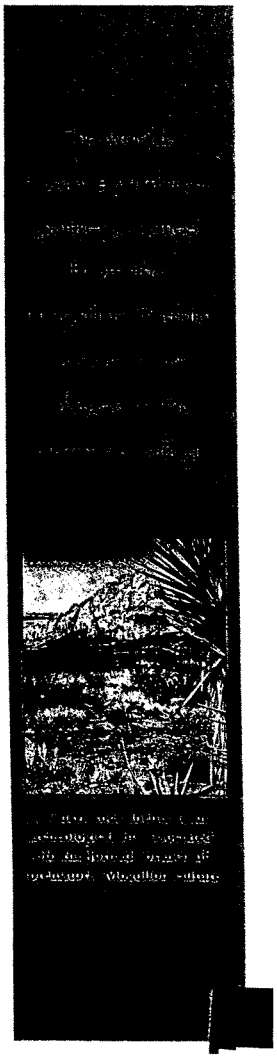
A.D. 900–1150
Pueblo II
Chaco Canyon, center of a dozen Great Houses and large regional network of outlier settlements connected by roads; small pueblos surround outlier communities, about 100 known in the Four Corners area.

A.D. 1150–1300
Pueblo III
Eclipse of Chaco Canyon and rise of Mesa Verde with large sites at Zuni, El Malpais, along the Rio Grande; pueblos are huge—over 100 rooms each, apparently defensive sites. Drought-forced abandonment of Four Corners region at the end of 1200, with movement into Rio Grande and north-central New Mexico, and the establishment of many of today's Pueblo communities.

A.D. 1300–1540
Pueblo IV
New pueblos along the Rio Grande and tributaries; large population centers and sophisticated agriculture. Pattern of rapid construction of large settlements, short-lived occupations, and rapid abandonment.

The world-famous Mimbres pottery comes from the Mogollon Pueblo period, from villages in the Mimbres Valley. This pottery features designs of people, animals, mythical creatures, and scenes from daily life. Village locations shifted about A.D. 1350 to the fringes of the traditional Mimbres culture area, and the entire region was largely abandoned after that time.

The Navaho and Apache of New Mexico have a different history than that of the Pueblo people. These Athapascan-speaking people entered New Mexico in the early 1400s, settling in the



northwest part of the State. After the Indian wars of the 19th century, they were deported to resettlement camps and permitted to return to their homelands only after many had died.

The Spanish Entrada and Early Spanish Colonial Period lasted from A.D. 1540–1700. Juan de Onate established the first Spanish settlement in 1598 at San Juan Pueblo. The route he established became known as El Camino Real, and for over 300 years, it served as an economic lifeline for the community. Spanish settlements grew along the Camino Real, and towns such as Albuquerque and Santa Fe trace their histories to this trail.

3. Cultural Resources At Risk

Vandalism, weather and erosion, development, recreational use, grazing, and other activities all are taking a toll on BLM's cultural resources in New Mexico. For example, Chacoan Outliers and Navajo Pueblitos are losing masonry fabric due to weather and erosion, and erosion along the La Plata River is undercutting and washing away sites; vandalism is affecting Rio Grande style rock art sites in the La Cienega and La Cieneguilla areas southwest of Santa Fe; looting threatens large adobe pueblos in the Galisteo Basin as population expands in that area; off-road vehicle use is eroding sites in southwestern New Mexico that have never been fully documented; cattle are knocking over homestead cabins and trampling artifacts in the Malpais region; recreationists collect artifacts at the surface at archaeological sites, removing diagnostic pieces; rapid oilfield development is damaging sites from road and pipeline maintenance, crew vandalism, and errors in facility siting; unauthorized road construction associated with saltcedar eradication is adversely affecting pithouse villages along the Pecos River.

4. Major Accomplishments

- Implemented a BLM pilot Site Stewardship program in northwest New Mexico. As a result of its success, the New Mexico State Historic Preservation Office agreed to establish a statewide Site Stewardship program.

- Expanded the international aspects of New Mexico's cultural resource management program by sponsoring six international conferences on the Camino Real and producing publications and interpretive products in partnership with Mexico.

- Incorporated data synthesis and heritage education into the protocol agreement with the State Historic Preservation Office, resulting in the production of regional overviews, geomorphological studies, research designs, lesson plans, newsletters, and standards and benchmarks publications for Project Archaeology.

- Held numerous field schools cosponsored by New Mexico BLM and New Mexico State University, University of Texas, University of New Mexico, Eastern New Mexico University, and San Juan College on threatened BLM sites.

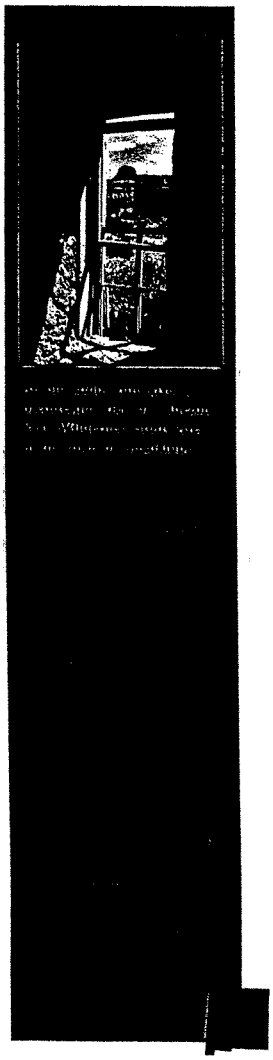
- Released 13 volumes of the New Mexico cultural resources series of historical essays, research, and interpretive reports that are provided to libraries, schools, and universities and sold in Public Lands Information Centers.

- Completed major Historic American Buildings Survey recordation and stabilization projects at 5 Chacoan Outliers and 12 Navajo Pueblitos.

- Completed major exhibits on the Mimbres and Navajo Pueblitos in partnership with Museum of Indian Arts and Culture that travel throughout the Western U.S., Spain, and Mexico.

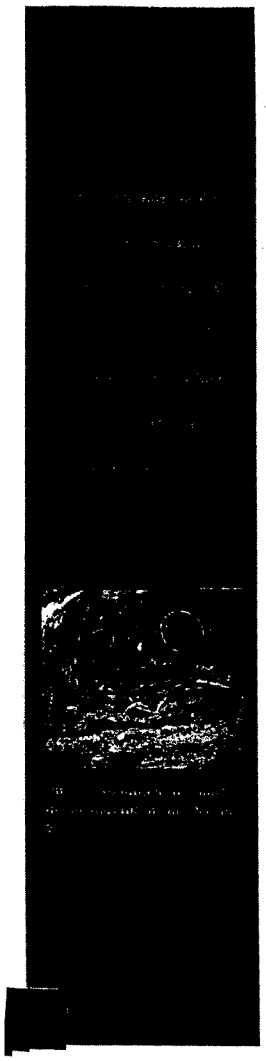
- Planned, built, and staffed the multimillion dollar Camino Real International Heritage Center in partnership with the State Monuments Division.

- Developed innovative interpretive products through a partnership with Santa Fe Indian School, including interactive computer programs, CD-ROMs, lesson plans, and a guide to multimedia instruction.



5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

Almost without exception, the management of particular cultural resources is of vital interest to some traditional community in New Mexico. Indian communities believe their ties to the land began in time immemorial, and Hispanic towns can date back to the late 1500s. Whether the BLM is preserving ancestral Tewa pueblo ruins that are tied to current pueblos of San Juan or San



Ildefonso, interpreting the influence that the Camino Real had on the customs and animal husbandry of rural towns in the Rio Abajo, or stabilizing dramatic defensive Navajo refuge sites, traditional communities feel that they have a stake in the outcome. Cultural resources management in New Mexico, thus, must constantly balance the need to preserve and protect resources of national and international significance with the interests, beliefs, and political agendas of traditional communities with deep ties to the land.

The management of heritage resources is of vital interest to numerous Indian tribes within New Mexico. These include the Apache Tribes at Jicarilla and Mescalero and the Rio Grande Pueblos (Cochiti, Isleta, Jemez, Nambe, Picuris, Pojoaque, San Felipe, San Juan, Santas Ana, Santa Clara, Santo Domingo, Tesuque, Taos, and Zia). Other Pueblo Tribes with whom we consult include the Acoma, Hopi, and Zuni. The Navajo Nation maintains a strong Historic Preservation Division and is very active in consultation. These Native Americans consider many landscapes and cultural resources managed by the New Mexico BLM to be ancestral, sacred, and vital to ongoing ceremonies and rituals. Shrines, sacred salt lakes, mountain peaks, and lava flows represent means to communicate with spirits and perform renewal ceremonies; they are locations where the gods currently reside or they may preserve epic battles and struggles of deity heroes. Such places are held in the utmost reverence and their preservation is considered essential to the maintenance of harmony and positive relations with the spirit world.

New Mexico BLM is also responsible for public lands and minerals in Texas, Kansas, and Oklahoma. At times, some of the Plains Tribes and Apache Tribes consult regarding Native American Graves Protection and Repatriation Act and Section 106 issues. Of course, the Oklahoma offices have over 100 tribes they consult with regarding land and mineral management issues.

Hispanic communities within New Mexico were established as early as the late 1500s along the Camino Real. These communities today take a great deal of pride in being able to trace family histories back some 20 generations, and they are keen to learn more about the Camino Real, Spanish colonial encampments, and early colonial settlements.

Southeast New Mexico witnessed very early industrial development. Some of the earliest oil and gas and potash

developments in the United States occurred here, and local communities are proud of and fascinated by evidence of early industrial history preserved on the public lands.

New Mexico has been a haven for writers such as D.H. Lawrence and artists since the 1920s. Even today, preservation of public landscapes, immortalized by such painters as Georgia O'Keefe, is considered vitally important by residents and visitors alike.

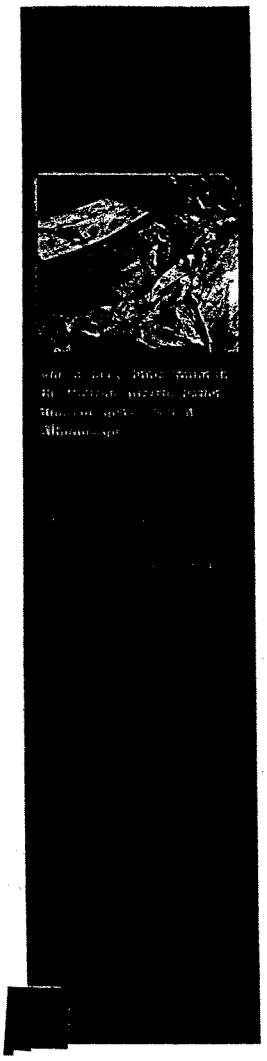
6. Existing Partnerships

- Archaeological Records Management Section and New Mexico Museum of Natural History to automate archaeological and paleontological data for use in planning, modeling, and research.
- Four Corners Heritage Council for Heritage Tourism Conference and traveling Navajo Pueblitos exhibit.
- State Historic Preservation Office for Project Archaeology, including production of newsletters, development of advanced teacher-training seminars, and research.
- New Mexico Office of Cultural Affairs to develop fresh traveling exhibits and other interpretive products.
- University of Texas for a field school to determine the research potential of a badly looted Classic Mimbres village site.
- Mexico's National Institute of Anthropology and History, through a Joint Declaration, to develop cooperative programs to better protect, manage, and interpret cultural resources in northern Mexico and the southwestern United States.

7. Economic Benefits

According to the New Mexico Office of Cultural Affairs report "On Fertile Ground: Assessing and Cultivating New Mexico's Cultural Resources" (1995):

- In 1995, $1,352,225 was generated by just 13 National Parks and Monuments and 5 State Monuments in New Mexico that emphasize historic and prehistoric sites.



- In 1994, international visitors to New Mexico spent $104,000,000.
- Of the overseas visitors to New Mexico, 71 percent participated in visits to historic sites and 54 percent in visits to American Indian sites.
- Direct dollars flowing into the New Mexico economy directly from cultural resources exceeds $300,000,000 annually.
- Direct and indirect expenditures related to cultural resources in New Mexico are $1.6 billion annually.
- Over 21,000 jobs can be attributed to cultural resources.
- More New Mexicans are employed in cultural resources and cultural tourism than in manufacturing, construction, or eating and drinking establishments.
- Local and State government tax revenues related to cultural tourism total $35 million and $74 million, respectively.

Paleontological Resources

I. Program Summary

New Mexico BLM administers over 12 million surface acres. Lands administered by BLM comprise about 16.6 percent of the total surface area of New Mexico. The acreage of fossiliferous surface exposures is estimated to be approximately 1.5 million acres. There are approximately nine Paleontological Resource Use Permits active at this time. Researchers from the University of Nebraska, State Museum of Pennsylvania, Mesa Southwest Museum, New Mexico State University, and New Mexico Museum of Natural History and Science conduct field work and collection year-round in the State. Within the past 3 years, five new types of dinosaurs have been discovered and named. These and other discoveries have received national attention. In New Mexico, there are 12 special management areas that focus on the protection of paleontological resources, one of which is a Research Natural Area.

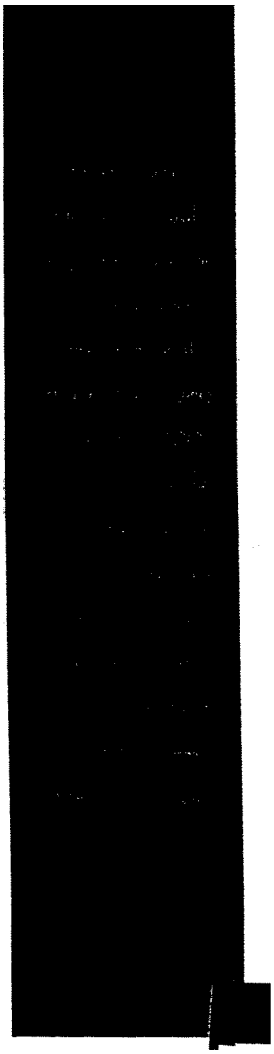
2. State Paleontological History

New Mexico has a fossil record that includes almost all of the geologic periods from the Cambrian (500+ million years ago [mya]) to the recent (the last 10,000 years), and nearly every imaginable ancient environment. Many New Mexico fossil deposits are of national and international importance, and close to 1,000 different kinds of fossils were made known to the scientific world from specimens first found in New Mexico rocks.

In the northwest portion of the State, the San Juan Basin, Late Cretaceous and early Tertiary sediments produce an abundant and diverse fossil vertebrate assemblage. The basin is one of only a few places in the world where continental sediments containing Late Cretaceous dinosaurs are immediately overlain by rocks bearing some of the earliest Tertiary mammals. The temporal interval represented in these sediments is of great importance to the scientific community because of its bearing on the question of the extinction of dinosaurs and other species at the end of the Mesozoic era and the almost explosive rise of primitive mammals at the beginning of the Cenozoic era.

Formations of early Tertiary age (58–63 mya) contain fossils considered to be the standard for two North American land mammal ages, the "Puercan" and "Torrejonian" of the early and middle Paleocene. The younger San Jose Formation (55 mya) also contains important vertebrate fossils. It has yielded two classic North American early Eocene vertebrate faunas and still produces important fossil vertebrate specimens including those of primitive primates. The majority of knowledge about the nature and structure of the first Tertiary mammals has been based on the study of specimens from these formations.

Older Mesozoic and Paleozoic rocks are exposed in areas further south. These rock units and the fossils they contain record the evolution of the dinosaur groups from reptiles and amphibian-dominated communities to a diverse dinosaur community. The Permian Abo Formation in southern New Mexico has yielded a world-class trackway site that dwarfs all other known sites in quantity, quality, and diversity of ichnotaxa (animal forms identified from tracks), and undoubtedly represents the most important Early Permian tracksites known to date. The trackway preserves a unique record of the lives and behavior of reptiles, amphibians, insects, and other invertebrates that lived 280 million years ago.



Triassic-age rocks in central New Mexico have produced the most complete record of theropod evolution in the world. Trackway sites are also recorded in the flood plain deposits of this rock unit. These rocks appear in large areas of BLM-administered land in west-central New Mexico.

The Jurassic-age rocks (about 140 mya) have yielded scientifically significant dinosaur remains from a number of sites near Albuquerque. One site has produced bones representing a new genus and species of dinosaur named *Seismosaurus*, soon to achieve worldwide fame at the "Gigantic Dinosaurs Expo 2002" in Japan. Another locality, known as the "Peterson Quarry," is New Mexico's strongest candidate to yield a large and important sample of Jurassic-age dinosaurs.

Along the Rio Grande drainage lie geologically young formations. Those of particular significance are the Miocene, Pliocene, and some Pleistocene deposits. Within these rock units there are fossils of mammoths, mastodons, bison, horses, camels, bears, dogs, and saber-toothed cats.

3. Paleontological Resources at Risk

Increasingly diverse types of land use, the financial value of fossils, and increasing populations have the potential to disturb or destroy fossils. Because of the visibility and accessibility to fossiliferous areas on public lands in New Mexico and the history of unauthorized collecting and vandalism, a strong monitoring program is needed. Excavation and collection by unauthorized personnel, such as unsupervised amateurs, commercial collectors, and other recreationists, has, in the past, caused long-term adverse impacts to scientific research and protection of these resources. Fossil collection without chronological control has minimal value when their contextual matrix ranges over thousands, or even millions, of years. Sites which are at risk from these factors include:

- The Peterson Site - For many years, New Mexico's record of Jurassic vertebrates lacked the rich Morrison Formation quarry faunas known from other Western States. With the Peterson Quarry, New Mexico's has its first Morrison Formation dinosaur bone bed, with multiple elements preserved of several different individuals.

- Paleozoic Trackways - The Paleozoic trackways of Permian age in the Robledo Mountains north and west of Las Cruces dwarf all other known tracksites in quantity, quality, and diversity of ichnotaxa (animal forms). They are arguably the most important Early Permian tracksites known to date worldwide.

- Bisti/De-na-zin Wilderness Area - Scientifically, the most important attributes of this area are the geologic structures and the associated paleontologic values.

4. Major Accomplishments

- Located 110 new fossil sites.

- Cataloged over 30,000 specimens.

- Published over 50 abstracts.

- Published over 100 articles in professional scientific journals.

5. Existing Partnerships

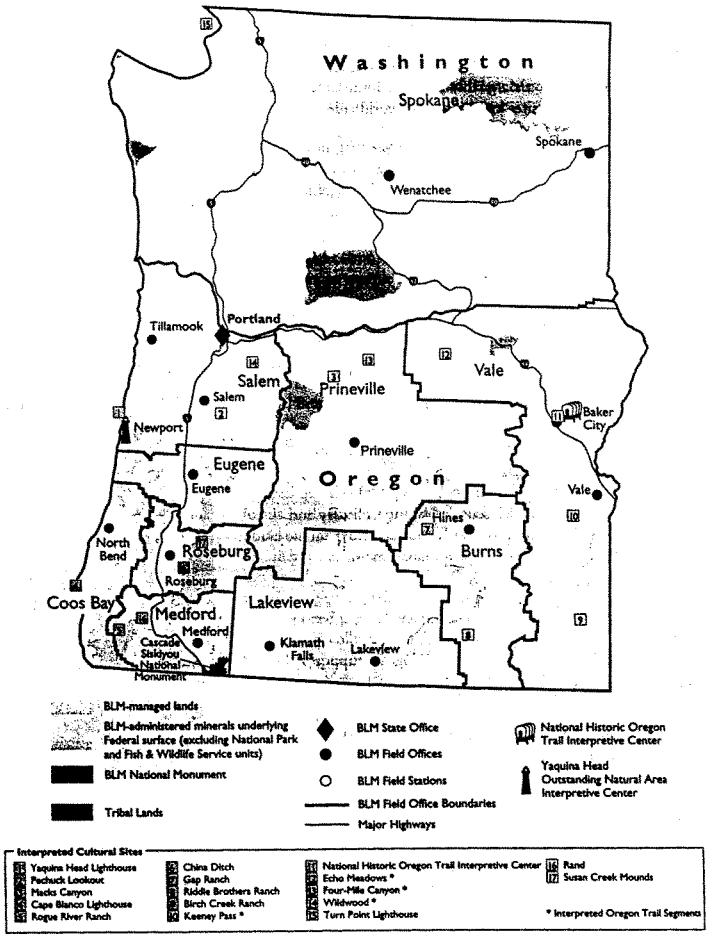
- The New Mexico Museum of Natural History and Science for curation of fossils collected from public lands in New Mexico and for data management.

- The State Museum of Pennsylvania for joint research and publication of paleontological data.

- The Friends of Paleontology for logistic support of field work and collection at specific sites.

6. Economic Benefits

Three quarters of a million visitors a year from New Mexico, the U.S., and foreign countries see fossil exhibits that display material from BLM lands at the New Mexico Museum of Natural History and Science. The economic effects of such visitation on the economy of Old Town and Albuquerque is thus not insubstantial. The benefits to public education, scientific knowledge, and public awareness and good will for the BLM are invaluable.


Washington
Spokane
Spokane
Wenatchee
Tillamook
Portland
Salem
Salem
Prineville
Vale
Baker City
Newport
Prineville
Eugene
Eugene
Oregon
Vale
Hines
Burns
North Bend
Roseburg
Roseburg
Coos Bay
Medford
Medford
Lakeview
Klamath Falls
Lakeview
Cascade Siskiyou National Monument
BLM-managed lands
BLM-administered minerals underlying Federal surface (excluding National Park and Fish & Wildlife Service units)
BLM National Monument
Tribal Lands
BLM State Office
BLM Field Offices
BLM Field Stations
BLM Field Office Boundaries
Major Highways
National Historic Oregon Trail Interpretive Center
Yaquina Head Outstanding Natural Area Interpretive Center
Interpreted Cultural Sites
Yaquina Head Lighthouse
Pechuck Lookout
Macks Canyon
Cape Blanco Lighthouse
Rogue River Ranch
China Ditch
Gap Ranch
Riddle Brothers Ranch
Birch Creek Ranch
Keeney Pass *
National Historic Oregon Trail Interpretive Center
Echo Meadows *
Four-Mile Canyon *
Wildwood *
Turn Point Lighthouse
Rand
Susan Creek Mounds
* Interpreted Oregon Trail Segments

OREGON/ WASHINGTON

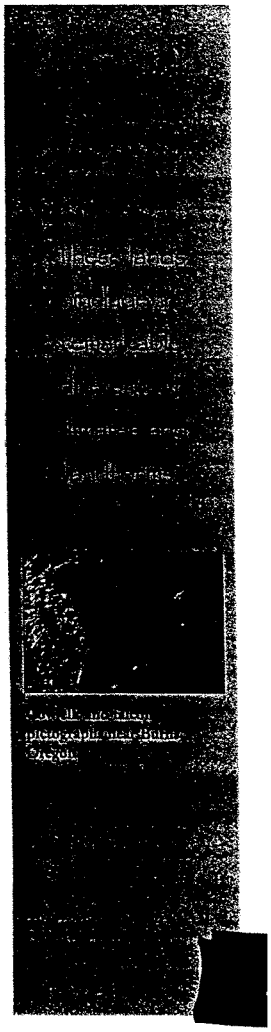
Statistical Overview

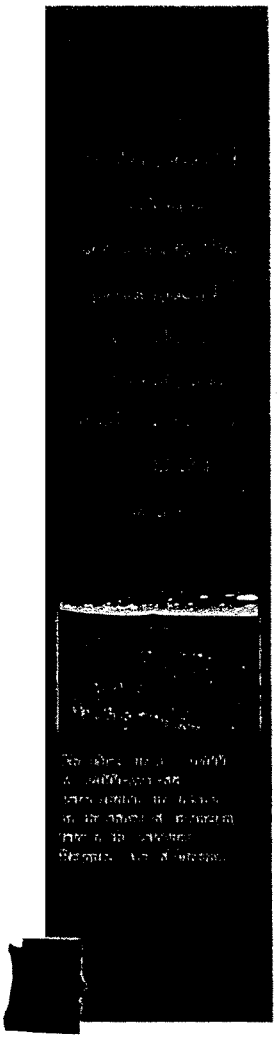
Acres of public land	15.7 million acres
Acres inventoried for cultural properties (FY 2000)	48,286 acres
Acres inventoried for cultural resources (to date)	1,279,791 acres
Cultural properties recorded (FY 2000)	430 properties
Cultural properties recorded (to date)	10,323 properties
Cultural Resource Use Permits in effect (FY 2000)	10 permits
National Register of Historic Places listings (to date)	19 listings
National Register of Historic Places contributing properties	62 properties
Section 106 class III undertakings (FY 2000)	242 undertakings
Section 106 data recovery, projects (FY 2000)	5 projects
Section 106 data recovery, properties (FY 2000)	23 properties
Interpreted places	17 places

Cultural Resources

1. Program Summary

The BLM manages 15.7 million acres of public lands in the States of Oregon and Washington. These lands include a remarkable diversity of climates and landforms. Basic physiographic provinces include high desert basins of the Great Basin, lava plains of the Columbia River Plateau, forested





mountains of the Cascade Mountains and Coast Range, and the Pacific Ocean coastline. Consequently, the history of human adaptations and resource use are diverse and plentiful, contributing to a broad range of physical remains and culturally influenced landscapes. Correspondingly, sites managed and protected by the BLM in Oregon and Washington are varied geographically representing over 10,000 years of human use and settlement of the Northwest landscape.

More than 1.2 million acres of public lands in Oregon and Washington have been inventoried for cultural resources and over 10,300 cultural resource sites recorded. The inventory and recordation program has resulted in 19 sites and districts listed on the National Register of Historic Places. Cultural or historic values associated with 17 designated Areas of Critical Environmental Concern include five segments of the Oregon National Historic Trail, the Snake River Archaeological District, the Sterling Mine Ditch in southwestern Oregon, the Biscuitroot Cultural area in eastern Oregon; the Spanish Gulch Mining District in central Oregon, and the Yakima River Canyon in central Washington. The 52,000-acre Cascade/Siskiyou National Monument was established in 2000 and contains a rich record of cultural resources.

2. State Cultural History

Archaeological evidence documents the presence of people in Oregon and Washington for over 10,000 years. Hunters following the big game of the Pleistocene camped along the large, inland lakes that occupied much of eastern Oregon. Archaeological finds from sites such as Fort Rock Cave and the Dietz site document this early history. Scattered Clovis points—uniquely fluted Paleo-Indian spear points—also attest to the presence of these early hunters in the western part of the States before 8000 B.C.

By 6000 B.C., environmental changes associated with the ending of the ice ages and the beginning of the Holocene brought about the development of the Archaic tradition in the Pacific Northwest. This hunting-gathering way of life persisted throughout Oregon and Washington until Europeans came to the continent a few hundred years ago.

Through this long, 8,000-year period, significant environmental differences fostered different Archaic traditions within the region. In the West, and especially along the Columbia River,

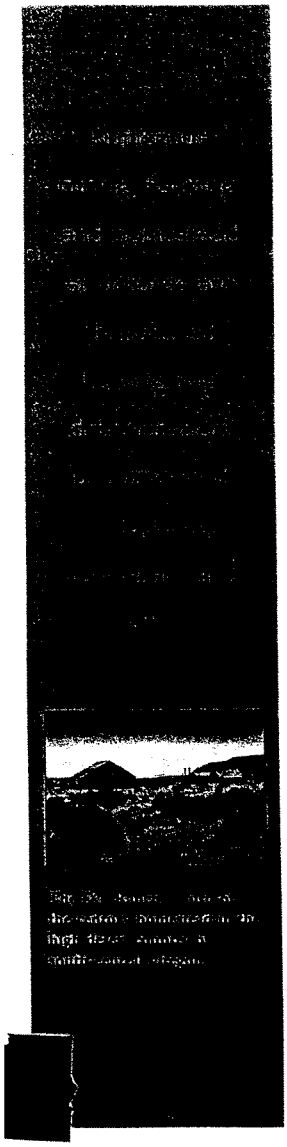
the rich, temperate environment fostered populous, sedentary villages based in large part on fish and other abundant and predictable resources from the rivers and the sea. This subsistence base extended upstream along the Columbia River and its tributaries, on the high and dry Columbia Plateau. These prolific fisheries drew tribes from many areas, allowing local tribes to control major centers for regional trade. People living in the arid southeast part of Oregon roamed across great distances in an annual round to collect and store foods and materials necessary for survival.

Lewis and Clark reached the Columbia River, near the present city of Portland, in 1805. Fur traders followed Lewis and Clark, bringing with them devastating diseases and a struggle among European countries for control over the Pacific Northwest.

In 1846, the region became an American territory, and settlement in the temperate and fertile Willamette Valley of northwest Oregon was well underway. Many pioneers braved the hazards of the Oregon Trail for the promise of wealth in the new land. In the early 1850s, the discovery of gold in southwestern Oregon, as well as the passage of the Oregon Donation Land Claim Act, brought a new flood of immigrants. Around the State, disease and depredations on the region's indigenous population and their lands fostered bloody conflicts that resulted in the confinement of surviving Native peoples to reservations.

Throughout the 19th century, a town-and-country way of life, based on farming, mining, and fishing in the west and ranching in the east, characterized the Northwest. The Northern Pacific Railway and the Great Northern Railway, completed in the last quarter of the 19th century, made westward migration cheaper, easier, and faster. However, because of national economic problems in the 1890s major new markets for Northwest goods were not realized until after the turn of the century.

Just as it had been since the financing of the Lewis and Clark Expedition, the Federal Government continued to be a major player in the region's development in the 20th century. By the middle of the century, over half of the land in Oregon was held by the Federal Government and managed by various agencies, including the U.S. Forest Service, National Park Service, and Bureau of Land Management. During the Depression era, New Deal policies brought the Civilian Conservation Corps and conservation policies—as well as the development of infrastructure, including Grand Coulee Dam—to these lands.



The government was instrumental as well in industrial development in the region, funding major dams and, during World War II, defense industries. Today national policies and politics continue to have significant effects in the State.

3. Cultural Resources At Risk

- Looting and vandalism threaten numerous sites. Pictographs near recreation areas are threatened and have been damaged by vandalism, illegal dumping, and unauthorized occupation. Vandalism and arson threaten historic structures and archaeological sites across the region.

- Erosion threatens many sites such as coastal shell middens, prehistoric campsites, burials, and historic period sites, including numerous standing structures. Erosion is particularly damaging along island perimeters and the Pacific coast due to seasonal storms and vegetation loss in popular recreation areas, and along streams, arroyos, and roadbeds in other parts of the State.

- The increasing population and recreational use of public lands threaten many sites. Urban interface areas in central Oregon and eastern Washington are receiving a rapid increase in use. Off-highway vehicle use and rock hounding threaten numerous archaeological and cultural sites, and recreation areas developed on or near archaeological sites hasten the destruction of the sites through increased erosion or excavation by placement of fire rings, picnic tables, and trails.

- Numerous mining, farming, and homestead structures are threatened by ongoing deterioration, unauthorized occupancy, vandalism, and wildfire. Many other structures and abandoned mine features and landscapes are threatened by public safety issues, including reclamation and mitigation measures and occupancy concerns.

- Numerous sites remain undocumented and unevaluated due to time and budgetary constraints. Inventories are conducted in high-use areas, but public use and proposed development outpace inventories, evaluation, and cultural resource management plans. Furthermore, the cost of active protection and stabilization, especially fo standing structures or popular archaeological sites, is high. The Deschutes and John Day National Wild and Scenic River corridors, for example, have many sites from the las

10,000 years that possess outstandingly remarkable values. However, systematic surveys and site documentation and evaluation have not been completed due to fiscal restraints. Each year the integrity of those undocumented sites, and by extension their significance, is compromised due to *authorized* public uses such as recreation and livestock grazing, as well as illegal activities that include artifact collecting and deliberate vandalism.

- Benign neglect of historic structures is another key issue in the Northwest. Not all of the known historic structures have been fully inventoried, had their significance determined, and had written condition assessments and restoration plans developed. Even for those with plans, budgetary limitations sometimes keep the BLM from completing approved restoration.

- Cultural resources, including Indian rock art sites, are threatened by mining activity. BLM has limited opportunity to protect sites located within proposed mining activities. A unique rock art site in southwestern Oregon may be eliminated to meet Mine Safety and Health Administration requirements for benching and safe operations of an adjoining mine.

4. Major Accomplishments

- Developed the Oregon Archaeology project, distributing the *Exploring Oregon's Past* curriculum guide to teachers statewide through teacher in-service training.

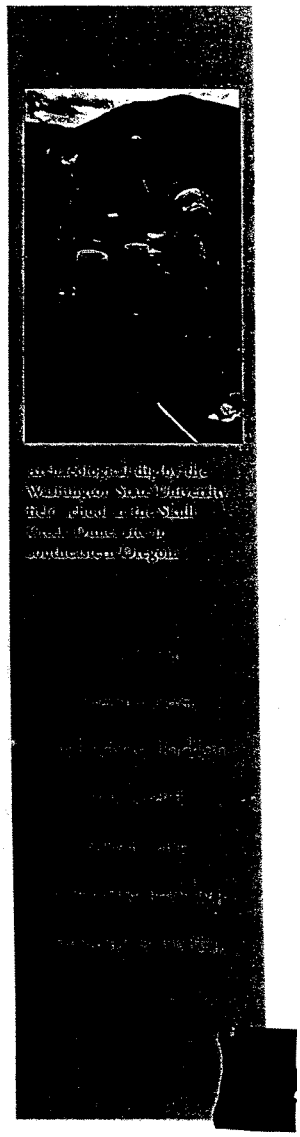
- Developed an interagency automated database system.

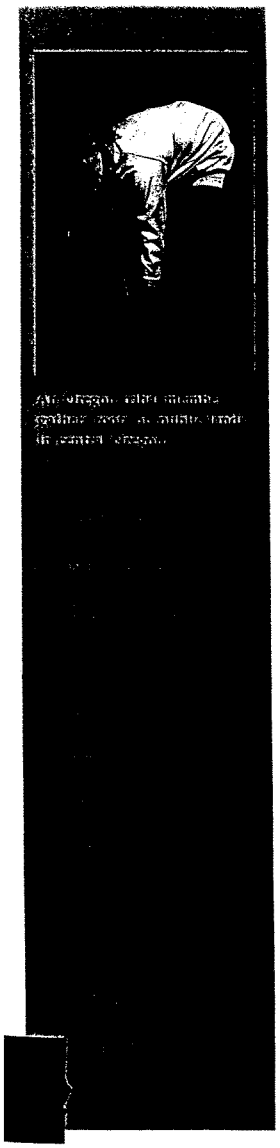
- Participated, with the States of Oregon and Washington, in annual public archaeology celebration events.

- Developed Oregon/Washington statewide cultural program Web site.

- Developed cultural resource themed exhibits that will be produced for the BLM Oregon State Fair cabin and other traveling exhibits in cooperation with such partners as the High Desert Museum of central Oregon and the Oregon Historical Society.

- Developed interpretive brochures that will be produced for Riddle Brothers Ranch National Register District and Gap Ranch CCC Camp.





- Continued restoration of an 1888 cabin located on the Canyon City/Fort Harney Military Wagon Road.

5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

Coordination with a number of Indian tribes on heritage preservation issues is a key facet of the cultural resource management program in the Pacific Northwest. There are 38 federally recognized tribes in Oregon and Washington. Large reservations in proximity to public lands are held by the Colville, Yakama, Umatilla, and Warm Springs Tribes. Many retain off-reservation treaty rights to public lands and public resources, serving to maintain a long-term link to the lands. The reserved rights and economic growth experienced since the 1980s has placed the tribes in a key position to influence public land issues.

The ongoing link to public lands involves concerns over how cultural sites, traditionally used places, and burials are treated. Of particular importance to Oregon and California tribes is the treatment of human remains and funerary objects of their ancestors. In the early 1990s, Oregon BLM completed its inventory of Native American human remains and funerary objects in repositories and published a Notice of Inventory Completion in the Federal Register. All those human remains and funerary objects in repository collections for which cultural affiliation with present day tribes could be ascertained were repatriated.

Asian populations also have a long history in the Pacific Northwest. That history is also reflected in cultural resources identified on public lands. These cultural resource sites are commonly associated with historic mining and railroad construction. It is expected that a closer working relationship with Asian American groups in the Northwest will develop in the future.

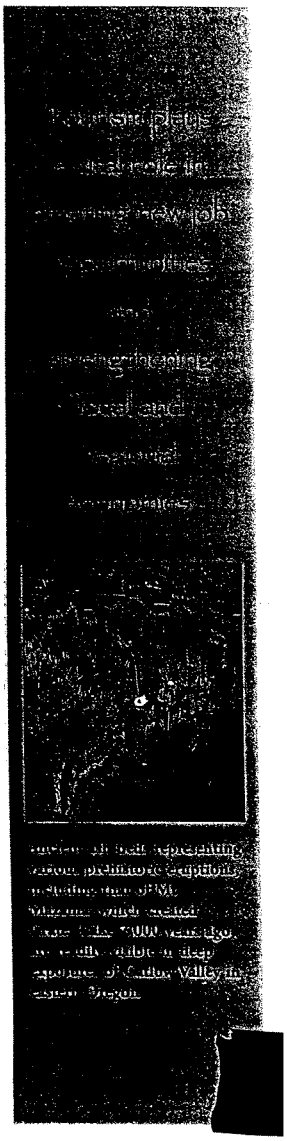
Several socioeconomic traditions have grown in the Pacific Northwest following U.S. acquisition of the region. Mining first led to the settlement of southwest Oregon in the early 1850s and northeast Oregon in the early 1860s. Farming and ranching operations followed, with the timber industry expanding in the 20th century. Each of these industries have established longstanding associations to public lands and have left a physical record of their growth. Mining, logging, and ranching museums and museum displays have become standard fare in rural communities.

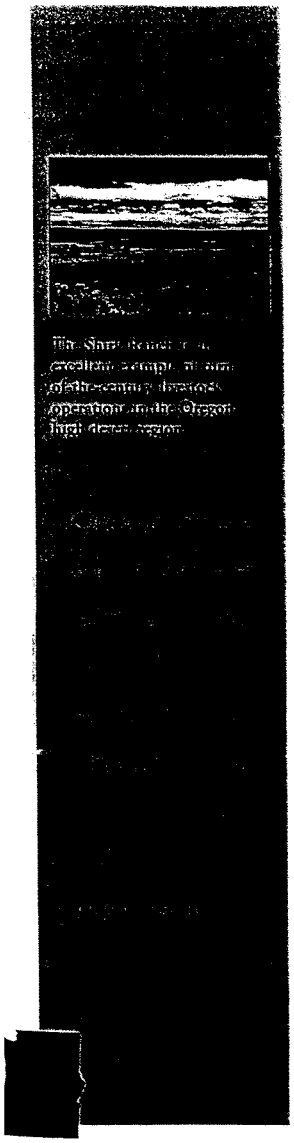
6. Existing Partnerships

- Two subregional interagency long-term workgroups—the Central Oregon Heritage Group (COHG) and the Western Zonal Group—as a basis for local data sharing, design of inventory strategies, and development of historic context statements.
- University of Nevada, Reno, in Harney Basin and Alkali Basin for First Americans cost-share project, which focused on material remains older than 8,000 years.
- University of Oregon, Washington State University, Central Washington University, Eastern Washington University, Southern Oregon University, and Portland State University, through ongoing cost-share projects, for a wide variety of field and research projects, several of which include tribal participation.
- Tribes, including the Klamath Tribes, the Cow Creek Band of Umpqua Tribe, and the Coquille Tribe, for site protection and monitoring projects.
- Chemawa Indian School, through a cooperative agreement, to conduct studies on school acreage related to forest and wetlands management and to provide additional teaching expertise to existing school staff.
- University of Oregon Continuing Education Program to provide ongoing training opportunities for BLM cultural staff.
- Archaeological Society of Central Oregon for site stewardship, outreach, and education.

7. Economic Benefits

Tourism plays a vital role in creating new job opportunities and strengthening local and regional economies. Oregon's greatest draw is its clean, pristine, natural environment. Much of the economic impact is generated by visitors recreating, sightseeing, and relaxing in the State's mountains, meadows, rivers, deserts, and oceans. A number of heritage tourism facilities have been developed to enhance the tourist experience, including BLM's National Historic Oregon Trail Interpretive Center at Flagstaff Hill near Baker City.





BLM interpreted historic sites host many visitors:

- The Oregon Trail Interpretive Center had 87,684 visitors in 1999 and has had 1,480,000 visitors since opening in May of 1992.
- Yaquina Head Interpretive Center had 284,994 visitors in 1999.
- Rogue River Ranch had 11,000 visitors in 1999.
- Rand National Register site had 7,000 visitors in 1999.

Paleontological Resources

1. Program Summary

Oregon BLM administers over 15 million surface acres. In any given year, there are between three and five Paleontological Resource Use Permits active in the State. Researchers from institutions such as the University of California, Berkeley; University of Nebraska; University of Florida; South Dakota School of Mines and Technology; and University of Oregon conduct their activities in the State to study the ecological and evolutionary changes over the past 50 million years. Specimens collected by these institutions are usually taken out of the State to be studied and stored elsewhere.

2. State Paleontological History

Much of the fossil record in Oregon represents time periods a little later than other States in the interior. For the most part, fossils are Cenozoic in age (40 million years to present). Oregon offers one of the best settings in the world for the study of biotic change over a long period of time on a regional scale. Fossil deposits in eastern Oregon represent a time when primitive mammals began to change and adapt to new environments and show a slow transition into faunas that we recognize today.

3. Paleontological Resources at Risk

There are two designated areas in the State dedicated to the protection of paleontological resources: Logan Butte and Fossil Lake Areas of Critical Environmental Concern. These and other fossil localities are experiencing a number of impacts. Natural forces have the most constant impact on the resource, both positively and negatively. Due to the increase in population growth and the associated use of public lands for development

and recreation, many areas, including fossil-bearing outcrops, have become more accessible. Many areas are experiencing vandalism and unauthorized collection of fossils on a recurring basis.

4. Major Accomplishments

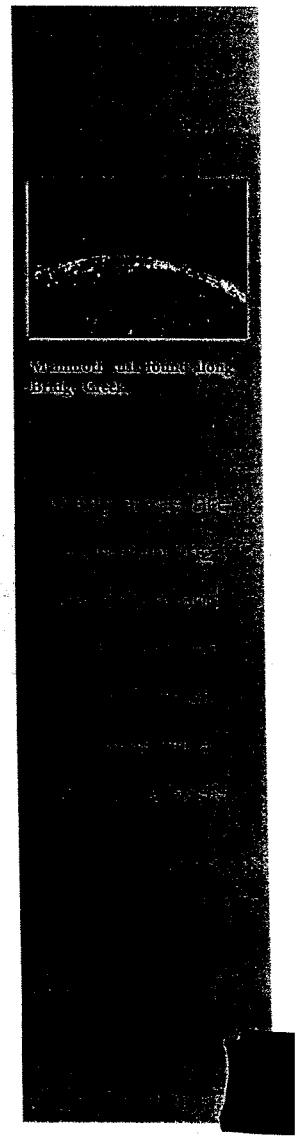
- Provided support for the geologic mapping and dating of Logan Butte and Fossil Lake Areas of Critical Environmental Concern.
- Established, trained, and funded a part-time statewide paleontology program coordinator position to assist districts in the management of fossil resources.

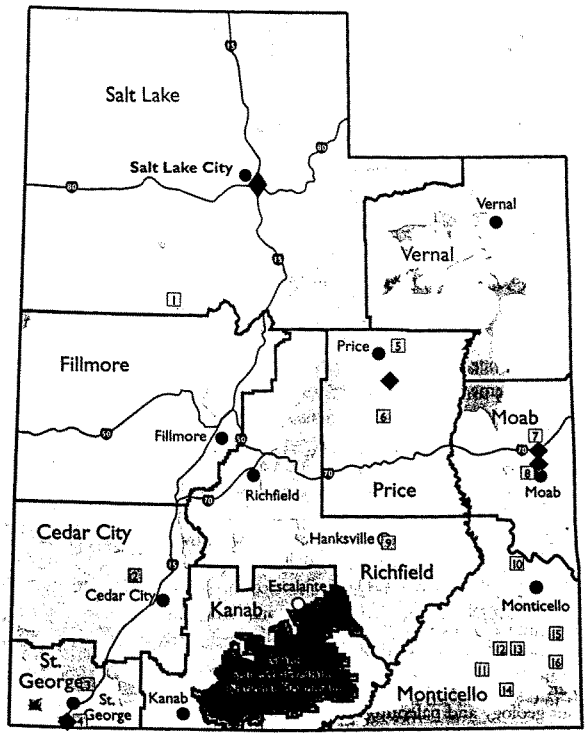
5. Existing Partnerships

- National Park Service, through a cooperative management agreement, to co-manage fossil resources on public lands in central and eastern Oregon.
- Oregon Museum of Science and Industry, Hancock Field Station, for education and outreach.

6. Economic Benefits

Under a long-term agreement, BLM and the National Park Service have worked together to make the John Day Fossil Beds National Monument one of their primary curatorial and interpretive facilities. Currently, units of this facility draw approximately 18,000 visitors a year. Students and groups from elderhostels are attracted to BLM-administered lands to learn more about geology and paleontology through a partnership with the Oregon Museum of Science and Industry, Hancock Field Station. The community of Fossil is currently allowing visitors to quarry leaf fossils on the high school grounds. Though unregulated, this activity demonstrates that interest in fossils may provide economic diversity. Central Oregon is a premier location for rock hounding, drawing about 10,000 visitors annually according to chamber of commerce estimates. Many of the rock types desired are directly or indirectly related to fossil resources, such as petrified wood, leaf fossils, and limb casts, that are found on public lands. Approximately 10,000 visitors a year are attracted to the area surrounding BLM's Fossil Lake Area of Critical Environmental Concern. Discoveries in other Pleistocene localities have attracted local and regional paleontologists, as well as the media.





BLM-managed lands

BLM-administered minerals underlying Federal surface (excluding National Park and Fish & Wildlife Service units)

BLM National Monument

Tribal Lands

BLM State Office

BLM Field Offices

BLM Field Stations

BLM Field Office Boundaries

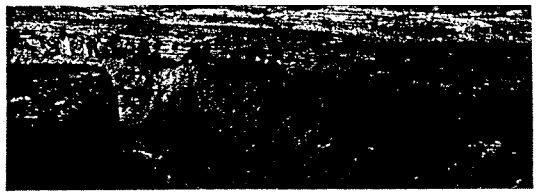
Major Highways

Interpreted Cultural Sites

1. Simpson Springs Pony Express Station
2. Parowan Gap Rock Art
3. Red Cliffs Archeological Sites
4. Fort Pearce
5. Nine Mile Canyon Arch. District
6. Buckhorn Wash Rock Art
7. Sego Canyon Rock Art
8. Potash Road Rock Art
9. Wolverton Historic Mill
10. Newspaper Rock (Rock Art)
11. Kane Gulch Ranger Station (Grand Gulch)
12. Mule Canyon Arch. Ruins
13. Butler Wash Ruins
14. Sand Island Petroglyphs
15. Three Kiva Ruin
16. Alkali Ridge National Historic Landmark

Interpreted Paleo Sites

- Cleveland-Lloyd Dinosaur Quarry
- Copper Ridge Sauropod Dinosaur Tracks
- Mill Canyon Dinosaur Trail
- Warner Valley Dinosaur Tracksite



UTAH

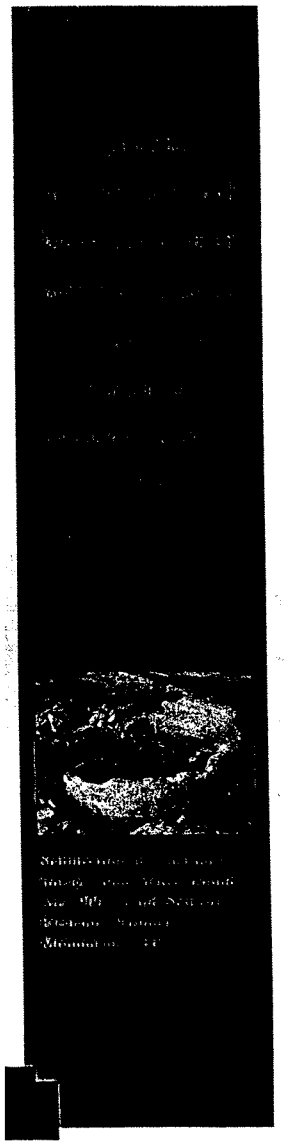
Statistical Overview

Acres of public land	22.9 million acres
Acres inventoried for cultural properties (FY 2000)	47,684 acres
Acres inventoried for cultural resources (to date)	1,459,254 acres
Cultural properties recorded (FY 2000)	899 properties
Cultural properties recorded (to date)	32,566 properties
Cultural Resource Use Permits in effect (FY 2000)	40 permits
National Register of Historic Places listings (to date)	33 listings
National Register of Historic Places contributing properties	618 properties
Section 106 class III undertakings (FY 2000)	470 undertakings
Section 106 data recovery, projects (FY 2000)	29 projects
Section 106 data recovery, properties (FY 2000)	167 properties
Interpreted places	20 places

Cultural Resources

1. Program Summary

The Bureau of Land Management in Utah manages more than 22,000,000 acres of public lands, approximately 42 percent of the State's surface. Existing records indicate that of these lands, only 1,459,254 acres (6 percent of total) have been inventoried for cultural resources. Despite the low inventory levels, 32,566 sites have been recorded on public lands in Utah to date,



including at least 899 sites recorded in fiscal year 2000. Figures available at the Utah State Historic Preservation Office (Division of State History) indicate that 55 percent of all sites recorded within the State are on BLM-managed lands.

BLM lands in Utah include two National Historic Landmarks: Desolation Canyon and Alkali Ridge. Thirty properties, a combination of individual sites and districts totaling 618 sites, have been listed on the National Register of Historic Places. Each year, a few hundred additional sites are determined eligible for inclusion on the National Register.

2. State Cultural History

There is no firm date for the earliest entry of humans to the Utah environment. However there is firm evidence that Paleo-Indians occupied the shorelines of the ancient Lake Bonneville in late Pleistocene (Ice-Age) times, with relict marshland sites comfortably dated at 8000 B.C. or older in northwest Utah. Clovis complex sites also document these Paleo-Indian inhabitants at several locations across the State.

The subsequent Archaic tradition was based on hunting and gathering a wide range of resources. This way of life lasted thousands of years in Utah and is represented by sites such as Danger Cave and Juke Box Cave. In some parts of Utah, Native peoples followed the Archaic traditions until contact with Euro-American explorers and settlers in the 19th century.

In southern and southeastern Utah, the Archaic tradition was gradually incorporated into other ways of life. By about 1000 B.C., preceramic Basketmaker complex sites were well-established with clear evidence of agriculture. During the Formative Period, beginning about A.D. 700–750, pueblo architecture and kivas associated with the Anasazi or ancestral Puebloan peoples appear in the archaeological record. Prehistoric roads connecting evenly placed settlements and activity centers, attributed to the Chacoan culture, also appear.

During this time period, the Fremont culture also emerges. Th people associated with this culture adopted maize agriculture, p houses and stone architecture, and a strong ceramic tradition. Their sites are found north of the Puebloan areas, throughout much of central and eastern Utah and in western Colorado an parts of Nevada.

Between A.D. 1300 and 1350, Fremont and Anasazi people seemed to abandon their villages and pueblos. After a brief hiatus, Late Archaic hunting-gathering traditions replaced these agricultural societies. Although some tribes do not agree, archaeological evidence suggests that today's Puebloan tribes are descended from the Anasazi, while Numic-speaking tribes (Paiute, Shoshone, Goshute) and the Navajo arrived in this area after the abandonment of Anasazi and Fremont villages.

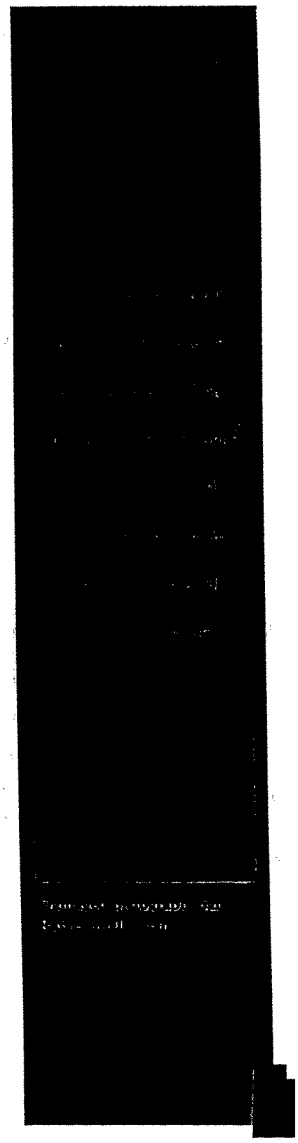
The Spanish entered Utah in 1776–77, led by Fathers Dominguez and Escalante. They were followed by explorers, mountain men, and trappers, such as Jim Bridger and Peter Skene Ogden, and by western emigrants passing through to California and Oregon.

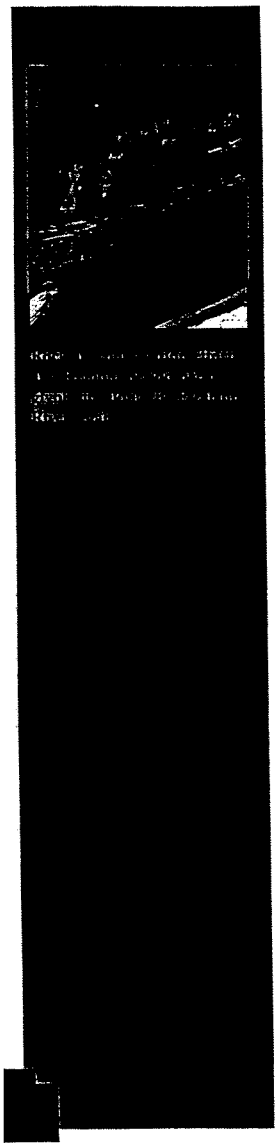
By 1847, a small party of Mormon settlers led by Brigham Young had come to stay. By 1860, 30,000 Mormons, members of the Church of Jesus Christ of Latter-Day Saints, had migrated to the Utah Territory from elsewhere in the United States and from countries across Europe. Salt Lake City became a major hub for travel east and west, north and south. Railroads, gold, iron, and coal mines all served to attract new waves of immigrants to Utah throughout the 19th and 20th centuries. World War II efforts brought renewed industrial vigor and burgeoning military bases to Utah, and spurred an additional influx of people.

3. Cultural Resources At Risk

Vandalism and theft continue to be issues in the preservation and protection of archaeological and historic sites in Utah. In northwest Utah, a series of caves along the ancient shorelines of Lake Bonneville continues to be a target for looters. Caves in Millard, Juab, Tooele, and Box Elder Counties have been impacted despite efforts by BLM and the State of Utah to close the highest profile sites with steel gratings. Vandals have smashed a monolith at an important rock art complex with implications for archaeo-astronomy. Rock art sites have been defaced and partly destroyed by modern graffiti and bullets; BLM has engaged in several restoration projects to repair some of this damage.

Portions of the extant Transcontinental Railroad grade across BLM lands in northwestern Utah are deteriorating. Portions of the grade are well-maintained for recreational bicycling, but





wooden culverts and trestles are in need of documentation, protection, and stabilization.

Development threatens resources in southwest Utah as Washington County and Iron County experience unparalleled growth. Growing visitor demand for recreational opportunities, and the demand for access to lands for development and infrastructure, threaten Virgin Anasazi villages, which occupy locations highly sought for land exchange and development.

In southeast Utah, an extraordinary and continuous influx of visitors is contributing to degradation of some of the world's most interesting archaeological remains. These remains comprise a rich tapestry of sites stretching from the San Juan River to the north. Vandalism and theft also continue to be problems in this area.

In central and northeast Utah, visitor use is also increasing, with off-highway vehicle activity burgeoning in some areas. In other areas, oil and gas development and development of other resources are sources of conflict with the preservation and protection of cultural resources.

4. Major Accomplishments

- Published 24 volumes in the cultural resource series and planned 2 new volumes for publication.
- Inventoried BLM collections held in several repositories in Utah and completed agreements with three repositories; plans are in place to update these inventories and secure additional agreements in fiscal year 2001.
- Established a formal intern training program with Washington and Lee University, resulting in a series of publications and professional papers prepared by the interns.
- Inventoried and evaluated almost 400 sites during reseeding and revegetation of over 100,000 acres burned during the 1996 fire season.
- Documented nearly 500 archaeological sites in Nine Mile Canyon over the years in partnership with volunteers and academic institutions.

5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

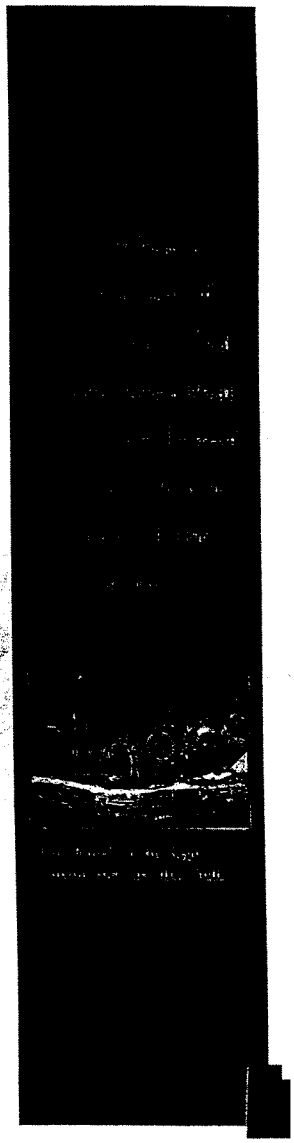
Utah has a diverse set of ethnic and tribal communities that have contributed to the cultural fabric of the State, and that may be recognized in archaeological sites, historic sites, and other places valued for their representation of Utah culture. The contribution of numerous tribes must be recognized first and foremost. Today, seven tribes recognized by the United States as sovereign tribes reside either entirely or in part within the State of Utah. These include the Ute Tribe (northern Ute), White Mesa Band of the Ute Mountain Ute, Navajo, five bands of the Paiute Tribe of Utah, Skull Valley Goshute, Confederated Goshute Tribes of Utah and Nevada, and Northwest Shoshoni.

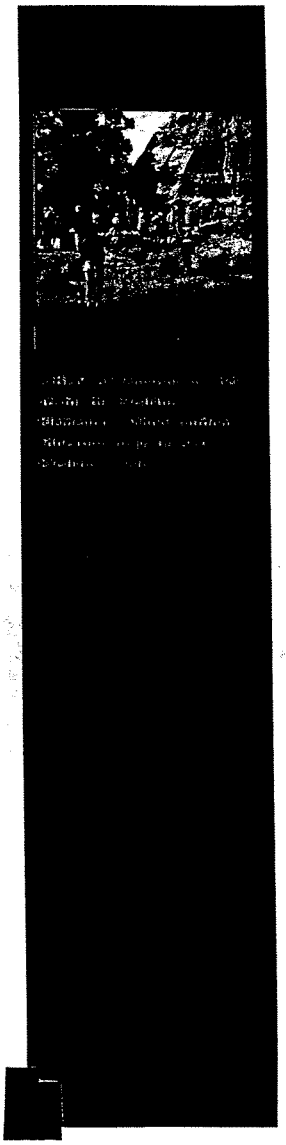
In addition, tribes currently residing in other States either occupied lands in Utah at one time or have some level of cultural affiliation to lands and places within Utah. These include all of the Puebloan tribes (21 tribes) currently living in Arizona, New Mexico, and Texas. Most notable among the Pueblos in terms of ongoing involvement in Utah lands are the Hopi, Zuni, Jemez, Zia, Nambe, and Laguna.

The Southern Ute Tribe, Eastern Shoshone (Fort Washakie), Shoshone-Bannock (Fort Hall), Shoshone-Paiute (Duck Valley), Ely Shoshone Tribe, Te-Moak Tribe of Western Shoshone (with four bands), Duckwater Shoshone Tribe, Moapa Band of Paiute Indians, Kaibab Paiute Tribe, and the San Juan Southern Paiute Tribe have either occupied or traditionally used lands in Utah, or have otherwise indicated cultural affiliation to lands and resources within the State or an affiliation to prior occupants of the State at some time in the past.

Members of these 38 tribes have varying degrees of affinity for the lands, natural resources, and places of Utah, ranging from traditional use areas to places of deeply held religious and sacred values, places in use today and for all time for ceremonial and spiritual purposes.

No discussion of culture, ethnicity, and tribal issues within the State would be complete without mention of more recent history. In 1847, the Latter-Day Saints (Mormons) arrived under the leadership of Brigham Young and began a process of Mormon emigration to Utah which lasted for nearly 30 years.





Utah is rich with place names and historical sites imbued with the traditional, community, and spiritual values of the Mormon people.

More recently, immigrants from Mexico, other Latin American countries, and Europe have left their marks on Utah's lands. Of particular interest for Utah public lands are the labor gangs recruited from Greece, the Slavic countries of eastern Europe, Italy, Mexico, and other countries to work in various mines and related industries across the State. Like the tribes and the early pioneers who preceded them, descendants of these people remain in the State today, contributing to the cultural diversity of Utah.

6. Existing Partnerships

- Earthwatch International to document over 200 rock art sites in San Juan County and record and evaluate numerous sites in Mill Creek Canyon.

- Interagency Task Force on Cultural Resources, which includes participants from BLM and the State of Utah, National Park Service, U.S. Forest Service, and other agencies at the State and Federal level. The task force has operated since 1986 for the protection and enhancement of cultural heritage resources across the State and has supported Utah's Intrigue of the Past, now the national Heritage Education program known as Project Archaeology; developed the ZiNj Educational Project including ZiNj Magazine and ZiNj TV; developed the popular Utah Preservation Magazine; and supported the State History Fair, heritage tourism, heritage education, and efforts to promote stewardship and protection of cultural resources.

- Four Corners Heritage Council, of which BLM is a charter member. Formed as a result of a task force symposium in 1990, the council works to develop and promote heritage tourism initiatives that serve to protect and enhance the spectacular archaeology in the Four Corners States. The council works actively with Federal agencies, local governments, and Indian tribes to promote Native American perspectives in the interpretation of resources to the public.

- Data Management Committee of the Interagency Task Force on Cultural Resources to manage and operate an automated database of cultural resource information.

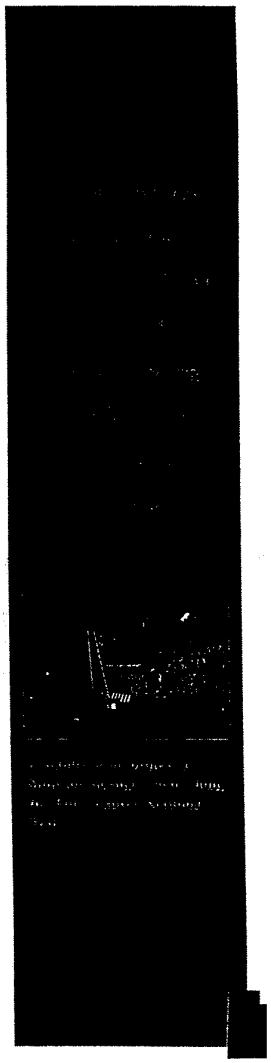
- Nine Mile Coalition, a multiyear partnership involving BLM, Brigham Young University, Utah Statewide Archaeological Society, and other members to inventory and document hundreds of sites in the Nine Mile District.

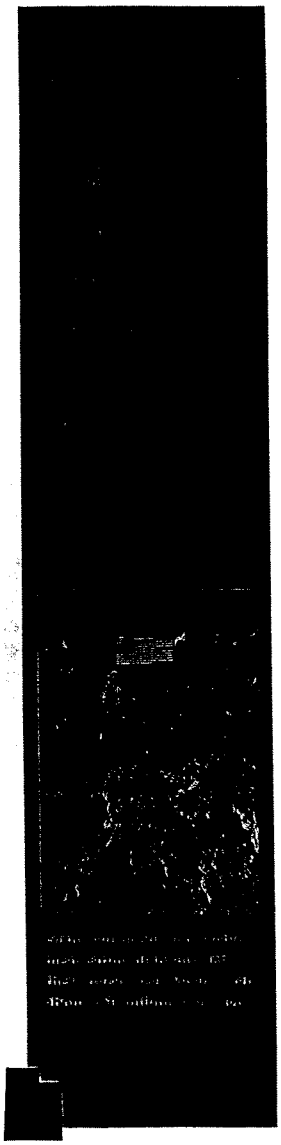
- Various museums and academic institutions, with which BLM maintains multiple, ongoing partnerships, for exhibits and displays, research, student training, and other activities that promote and protect BLM's cultural resources.

7. Economic Benefits

There is little primary data available on the impacts of cultural resources on the local economy. However, scientific polls indicate that more than 90 percent of visitors to the region intend to visit one or more historic or archaeological properties during their stay, and we know that heritage tourists are more likely to stay in motels/hotels than other visitors, with average family visits lasting 3–4 days at a cost of $215 per day.

Visitor use days at the Cedar Mesa/Grand Gulch complex alone have increased to over 100,000. If one-fourth of these visitors spends a single night in a motel, the contribution to the economy would be more than $5,000,000. Factor these conservative numbers by the dozens of BLM venues available, and the numbers climb rapidly. Add in gasoline purchases, convenience store purchases, groceries, gift shop sales, and other sales developed just for this tourist industry, and it is obvious that heritage tourism on BLM lands in Utah helps to bring in millions of dollars of revenue. It would be extremely reasonable to suggest that heritage tourism on public lands in Utah is directly responsible for an estimated $10,000,000 of economic benefits in Utah.





Paleontological Resources

1. Program Summary

Utah BLM manages approximately 23 million surface acres. Fossils have been collected and documented from thousands of localities on public land since the 1800s. Researchers and students from all parts of the country come to observe or collect from areas that are known to have rich deposits of fossils. Utah BLM issues an average of 40 Paleontological Resource Use Permits every year. Many of these are for consulting on projects that have potential impacts to areas where fossils may be found.

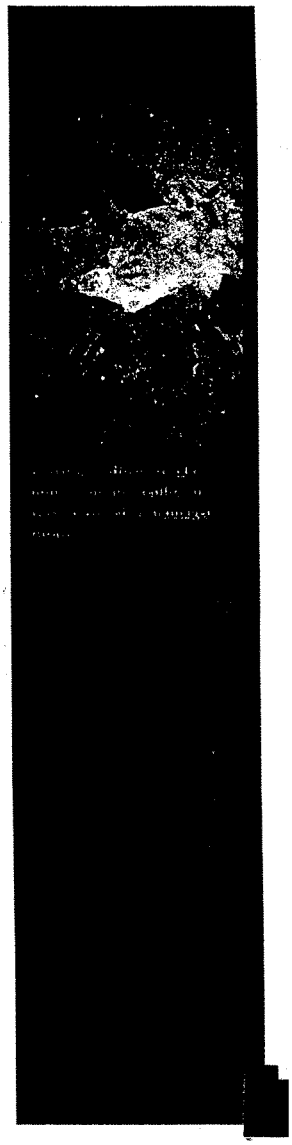
2. State Paleontological History

Utah has a rich paleontologic history that begins over 500 million years ago with fossils of invertebrates such as trilobites and sponges that were common in the Cambrian period. During the early Paleozoic, the record of terrestrial vertebrates begins with reptile skeletons and footprints and skeletons of giant amphibians. Early Mesozoic tree trunks and cycad stumps are evidence of warm, wet climatic conditions. Later deposits of sediments during Jurassic times contain an extremely rich and diverse dinosaur fauna that have yielded such icons as *Allosaurus*, *Stegosaurus*, *Apatosaurus*, and even some fossils of very early mammals. Cretaceous-age rocks contain not only dinosaur fossils, but fossils of turtles, crocodiles, fish, mammals, invertebrates, and botanical remains. Utah has a diverse record of Ice-Age faunas that include mammoths and mastodons, horses and camels, saber-toothed cats, giant wolves, musk oxen, and ground sloths.

3. Paleontological Resources at Risk

Some of Utah's oldest fossils are also some of its most sought after. Many instances have been recorded where casual collecting has been pursued over enthusiastically and resulted in major surface disturbance with significant impact to the resource. Unauthorized collecting by commercial collectors has also been a major factor in the loss of potentially important paleontological specimens. Urban growth in Utah is concentrated along the

Wasatch Front, and people seeking recreational opportunities such as mountain biking and off-highway vehicle use, even hiking and camping, also intentionally or inadvertently threaten fossil resources.



4. Major Accomplishments

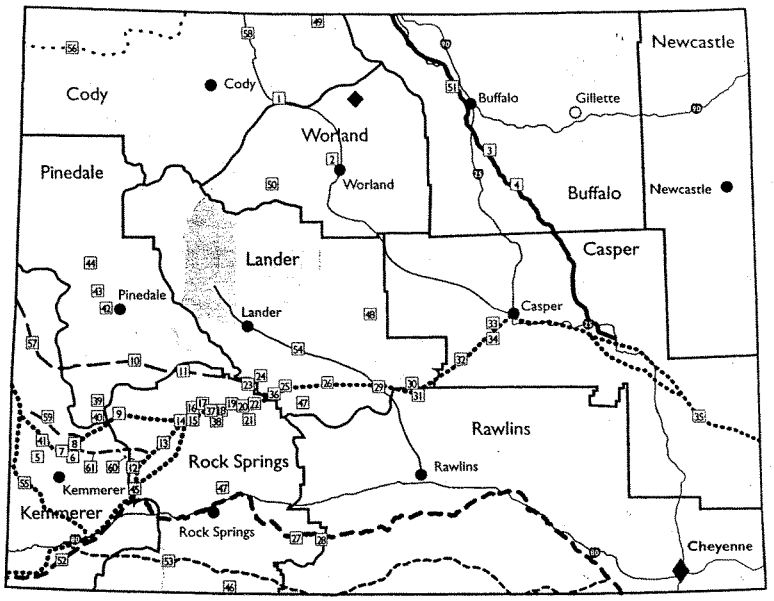
- Continued research and interpretation at the Cleveland-Lloyd Dinosaur Quarry, which is the major source of *Allosaurus* dinosaur fossils for museums all over the world and remains a major focus of ongoing research; the visitor center, which opened in 1968, is a major site for public visitation today.
- Returned Cleveland-Lloyd Dinosaur Quarry specimens to the University of Utah Museum of Natural History.
- Discovered the world's only articulated skull, jaws, and neck of an Apatosaur (*Brontosaurus*-like dinosaur).
- Discovered three new dinosaurs at Grand Staircase-Escalante National Monument.
- Completed preparation of new species of sauropod dinosaur.

5. Existing Partnerships

- Utah Geological Survey for the maintenance of locality data.
- Cincinnati Museum Center for curation of significant specimens.
- Utah Field House of Natural History for curation of specimens.

6. Economic Benefits

Unknown.



BLM-managed lands

BLM-administered minerals underlying Federal surface (excluding National Park and Fish & Wildlife Service units)

Tribal Lands

BLM State Office

BLM Field Offices

BLM Field Office Boundaries

Major Highways

Bozeman Historic Trail

Overland Historic Trail

Cherokee Historic Trail

Rawlins to Fort Washakie Stage Road

Mormon Pioneer National Historic Tr

Nez Perce National Historic Trail

Lander Trail

Jim Bridger Historic Trail

Dempsey-Hockaday Cutoff

Kinney Cutoff

Slate Creek Cutoff

Interpreted Cultural Sites

1 Jim Bridger Trail Historic Marker
2 Jim Bridger Trail Historic Marker
3 Crazy Woman Battlefield
4 Cantonment Reno
5 Nancy Hill Grave
6 Emigrant Spring
7 Johnston Scout Rock
8 Pine Grove
9 Lucinda B. Wright Grave
10 New Fork Crossing
11 Buckskin Crossing
12 Green River (Lombard) Ferry
13 Simpson's Gulch
14 Little Sandy Crossing
15 Parting of the Ways
16 Dry Sandy Swales
17 Plume Rock
18 South Pass Overlook
19 Pacific Spring
20 South Pass
21 Oregon Buttes
22 Twin Mounds
23 South Pass City
24 Miner's Delight
25 Rocky Ridge
26 Ice Slough
27 Fort LaClede Stage Station
28 Dug Springs Stage Station
29 Split Rock
30 Martin's Cove
31 Devil's Gate
32 Prospect (Ryan) Hill
33 Emigrant Gap
34 Bessemer Bend
35 Old Bedlam
36 Willie's Handcart Disaster
37 False Parting of the Ways
38 Big Sandy Crossing
39 Names Hill
40 Holden Hill
41 Alfred Corum Grave
42 Father Pierre DeSmet Site
43 Upper Green River Rendezvous/ Trapper's Point
44 Astorian Campsite
45 Daniel Lantz Grave
46 Melinda Armstrong Grave
47 White Mountain Petroglyphs
48 Castle Gardens Petroglyphs
49 Little Mountain Caves
50 Legend Rock Petroglyphs
51 Bozeman Historic Trail
52 Overland Historic Trail
53 Cherokee Historic Trail
54 Rawlins to Fort Washakie Stage Road
55 Mormon Pioneer National Historic Trail
56 Nez Perce National Historic Trail
57 Lander Trail
58 Jim Bridger Historic Trail
59 Dempsey-Hockaday Cutoff
60 Kinney Cutoff
61 Slate Creek C

Interpreted Paleo Si

Red Gulch Dinosau Tracksite ACEC

WYOMING

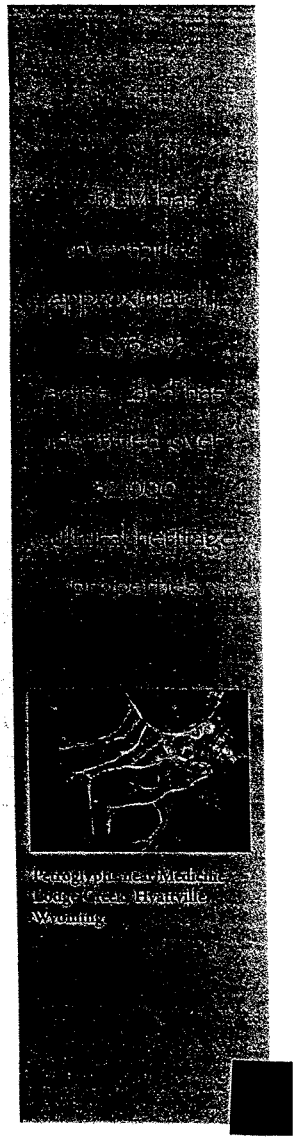
Statistical Overview

Acres of public land	18.4 million acres
Acres inventoried for cultural properties (FY 2000)	142,016 acres
Acres inventoried for cultural resources (to date)	2,073,893 acres
Cultural properties recorded (FY 2000)	2,117 properties
Cultural properties recorded (to date)	32,471 properties
Cultural Resource Use Permits in effect (FY 2000)	88 permits
National Register of Historic Places listings (to date)	30 listings
National Register of Historic Places contributing properties	39 properties
Section 106 class III undertakings (FY 2000)	1,420 undertakings
Section 106 data recovery, projects (FY 2000)	9 projects
Section 106 data recovery, properties (FY 2000)	13 properties
Interpreted places	62 places

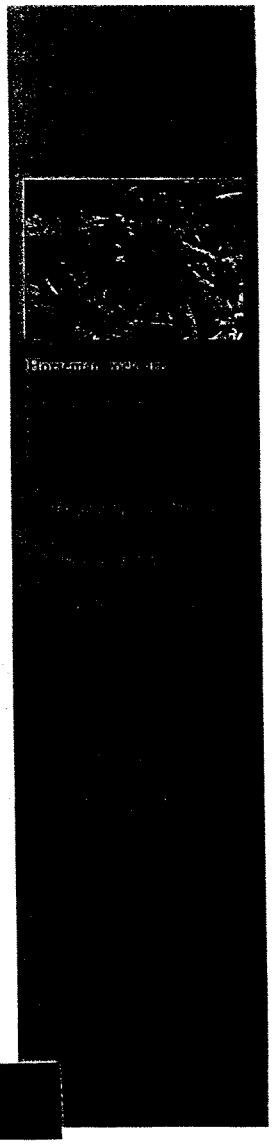
Cultural Resources

1. Program Summary

BLM manages 18.4 million surface acres of land in Wyoming. Of this, BLM has inventoried approximately 2,073,893 acres (11.3 percent) and has identified over 32,000 cultural heritage properties. Some 5,799 (18 percent) of these properties have been determined eligible for inclusion on the National Register of Historic Places. Currently, there are 30 sites in Wyoming that



Petroglyphs near Medicine Lodge Creek, Hyattville, Wyoming



are listed on the National Register of Historic Places, including three multiple properties and two National Historic Landmarks. BLM meets its education and public outreach responsibilities through numerous partnerships with public, academic, and private institutions, and as cosponsor of the annual Island in the Plains Conference on Black Hills prehistory and history.

The State displays a unique portrait of prehistoric cultural resources representing some of the earliest and most diverse hunting and gathering cultures in North America, ranging from 13,000 years ago up to the Indian horse cultures of the historic period. Associated with these hunting/gathering cultures is a complete timespan of Native American rock art ranging from dated Paleo-Indian petroglyphs and pictographs up through horse culture iconography of the historic period.

Wyoming, with its harsh high sage desert, rolling plains, and rugged mountains, has historically been known as a place to pass through or exploit for its natural resources rather than as a region desirable for settlement and population growth. The State has more emigrant trails and transportation corridors than any other part of the country.

Wyoming BLM manages over 1,500 miles of historic trails and expansion-era stage and freight roads. There are over 315 miles of Oregon, Mormon Pioneer and California Emigrant, and Pony Express Trails on public land in the State of Wyoming, all of which are demarcated with trail monuments and interpretive signs for the benefit of the public. Additionally, there are numerous trail-associated emigrant camp areas managed by the BLM.

Late 19th and 20th century resource extractive industries and ranching are reflected by a landscape dotted with early mines (gold and coal), oil field camps and townsites, timber and tie camps, and sheep and cattle ranches. Some of these sites are interpreted for public visitation.

2. State Cultural History

Wyoming has a diversity of ecological niches and topographic relief ranging from grassy plains, sage desert, buttes, seasonally dry arroyos, and riverbeds to foothills, dissected mountain slopes, canyons, mountain conifer forests, and high-altitude alpine tundra. Never a friendly place for agriculture, this harsh

land always favored hunters and gatherers since it supported a variety of grazing and browsing animals as well as seeds, roots, tubers, berries, greens, and fruit.

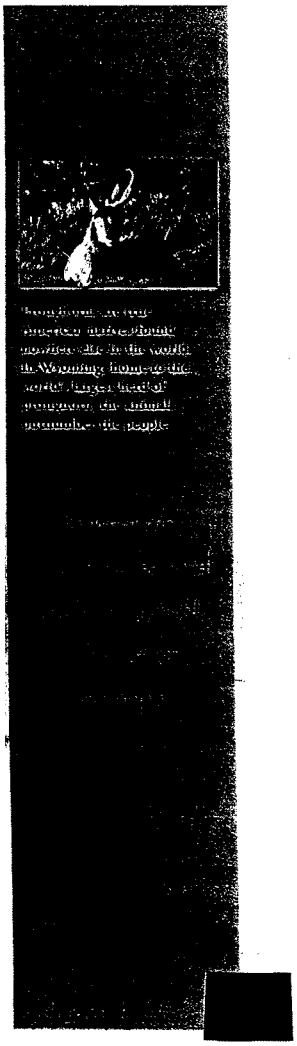
Paleo-Indians hunted large herbivores, such as mammoths, horses, camels, and giant bison, that roamed the lush grasslands at the end of the Pleistocene (ice ages). Archaeological evidence solidly documents this early period beginning about 10,000 B.C. and lasting until the early Archaic, which appeared with warmer and drier climatic conditions around 6500 B.C.

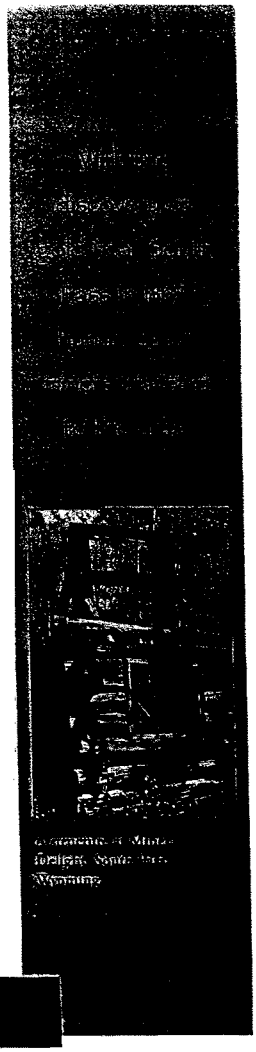
Extinction of the large Pleistocene mammals and the increasing diversity of plant communities led the early Archaic people to focus on smaller game and a variety of different plant resources. These diversified subsistence strategies are reflected in the archaeological record by a proliferation of different technological traditions such as projectile point styles and the increasing use of ground stone tools to process plant foods. In eastern Wyoming, bison kills still occurred, but they were infrequent. In western Wyoming, several sites document reliance on antelope. An important development was the construction of house pits, which indicated that people had more substantial house structures than archaeologists had earlier suspected.

About 2300 B.C. a wetter climate led to environmental conditions similar to those of today. Human groups of this middle Archaic period adapted to these changes by increasing their reliance on large mammals for food, especially bison, but also deer and antelope.

The late Archaic, beginning about 1000 B.C., is a time of a marked increase in communal bison hunting, including the use of elaborate wood corrals as traps. Most late Archaic house structures identified to date are tipi rings rather than house pits.

The late prehistoric period, beginning about A.D. 500, is distinguished by technological innovation and a significant surge in population. The bow and arrow and pottery appear at archaeological sites from this time, and in southwestern Wyoming, there is a distinct change in house types. People continued to follow Archaic subsistence practices based on seasonal movements through the basins and foothills in response to availability of floral and faunal resources. Yet intensive use of seeds implies a notable change in subsistence strategy, which appears





to be accompanied by increased social complexity. In eastern Wyoming, communal bison driving continued to be a dominant subsistence strategy throughout the late prehistoric and into the historic period.

Sometime around 1700, the first European trade goods reached the tribes in this region. The introduction of horses produced significant cultural changes on the Plains. The greater mobility changed hunting strategies, led to increased raiding and warfare, and enabled people to transport greater loads in moving camp. The need to provide grass and water for horses changed settlement strategies. The exact date for the arrival of horses is not clear, but the Shoshone and Crow both had significant numbers of horses by the first half of the 18th century.

Between 1800 and 1840, the fur trade sent explorers and trappers into the area, greatly increasing Indian contact and connection with Euro-Americans. In 1840, Marcus and Narcissa Whitman traversed the area, opening the Oregon Trail. The year 1846 saw the beginning of the Mormon (members of the Church of Jesus Christ of Latter-Day Saints) emigration to what they referred to as the land of "Zion"—the valley of the Great Salt Lake in Utah Territory. By 1860, the Bozeman and Bridger Trails diverged from the Oregon Trail, accommodating the many westward immigrants. Soon the transcontinental telegraph, Overland mail, and eventually, transcontinental railroad (in 1868) all followed the initial route across Wyoming, providing lifelines between the settlements of the west coast and the populous East. Military installations, placed at regular intervals, protected the route.

The railroad finally provided the impetus needed for the development of cattle and sheep industries in Wyoming. With the discovery of gold near South Pass in 1867, hundreds of miners traveled to the area. Historic sites document this era at Sweetwater Mining District, South Pass and Atlantic Cities, and Miners Delight.

3. Cultural Resources At Risk

Numerous factors are affecting cultural sites in Wyoming, including:

- Artifact collecting and impacts from tourism at the Bozeman Trail/Crazy Woman Battle site/Cantonment

Reno, Keyhole Bison Jump, and numerous other sites. Casual collecting damages sites by completing altering surface data to the point where the manifestations of hundreds of hunter-gatherer sites have literally been stripped away.

- Casual use from recreation, which affects sites such as the Oregon/California/Mormon Pioneer/Pony Express National Historic Trails.

- Weathering and erosion, as at the Wardell Buffalo Trap, Holden Hill Emigrant Inscriptions, and other sites.

- Cattle damage and natural erosion at Johnston Scout Rocks Emigrant Inscriptions.

- Vandalism and theft, as at the Bridger Antelope Trap where remnants of a juniper fence trap are being removed for firewood, and at various petroglyph sites, including the Castle Garden petroglyph site.

- Illegal excavations at various sites. The Amee Eaton buffalo kill site has been 80 percent destroyed from illegal excavations and artifact collecting.

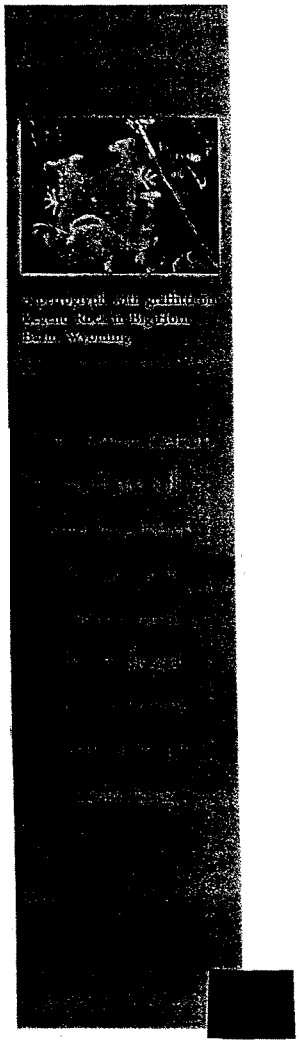
Major Accomplishments

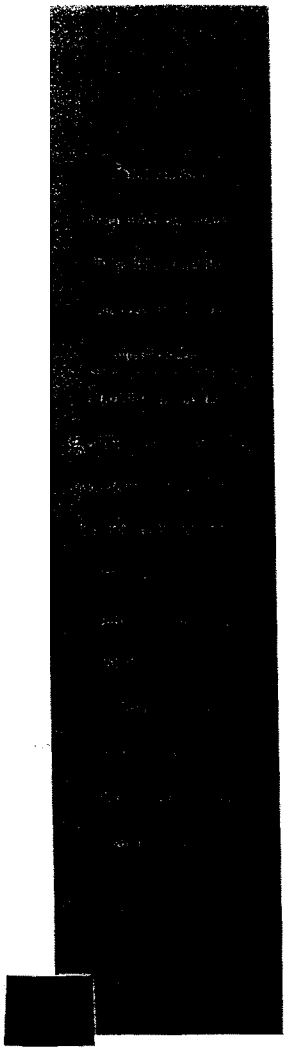
- Completed Rocky Gap interpretive site along the Oregon-California Trail.

- Completed Wyoming's Project Archaeology supplement Discovering Archaeology in Wyoming; provide annual Project Archaeology teachers' workshops.

- Initiated a 4-year data recovery project at the multicomponent Bozovich site under a cost-share partnership with Western Wyoming Community College, the Wyoming Archaeological Society, and rancher Joseph Bozovich.

- Coordinated trail activities and events for the Mormon Pioneer National Historic Trail Sesquicentennial Wagon Train.





- Completed a rock art condition evaluation and stabilization project in partnership with the U.S. Army Corps of Engineers to assess the condition of rock art sites, experiment with stabilization methods, and develop a rock art management manual for Federal agency managers.

- Completed a large land exchange in the Newcastle Resource Area, which will add 1.5 sections of land to the Whoopup Canyon Petroglyph Site Area of Critical Environmental Concern and bring additional petroglyph panels and associated archaeological sites into Federal protection.

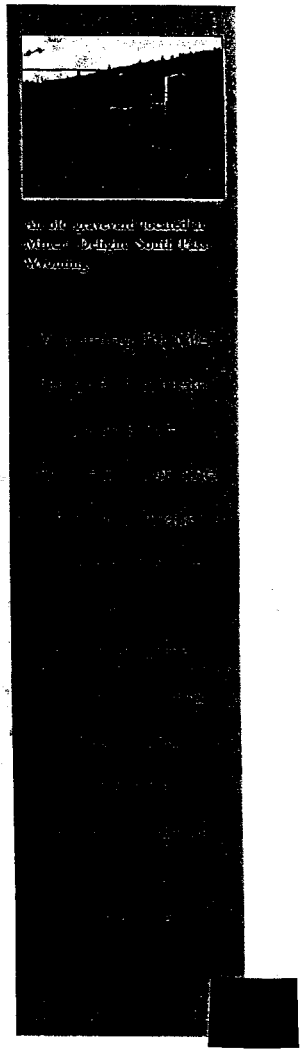
- Developed interpretive sites for Pilot Butte, South Pass Overlook, Lombard Ferry, and Simpson's Hollow along the Oregon/California–Mormon Pioneer–Pony Express National Historic Trails. Also replaced trail markers along approximately 100 miles of trail segments.

5. Ethnic, Tribal, and Other Groups to Whom BLM Cultural Resources Are Important

Because Wyoming was traditionally occupied by nomadic hunting-and-gathering bands, numerous tribes, both within the State and in surrounding States, have historical connections to the Wyoming landscape. These include the Eastern Shoshone and Northern Arapaho in Wyoming (Wind River Indian Reservation); the Nez Perce (Colville Confederated Tribes) and Shoshone Bannock in Idaho; the Crow, Blackfeet, and Northern Cheyenne in Montana; the Oglala Nation (Pine Ridge), Rosebud Sioux, Cheyenne River Sioux, and Lower Brulé Sioux in South Dakota; the Standing Rock Sioux and Three Affiliated Tribes (Mandan, Hidatsa, and Arikara) of North Dakota; the Northern Ute (Uintah and Ouray Tribes) of Utah; the Southern Cheyenne, Southern Arapaho, Pawnee, and Comanche Tribes located in Oklahoma. Because BLM also administers public land and is responsible for conducting surveys of Indian reservations in Nebraska, we also occasionally consult with the Winnebago, Santee Sioux, Omaha, Ponca, Iowa, Sac, and Fox Tribes.

Other ethnic groups occasionally consulted include the Chinese, the Japanese, and the Basque. While they are not specifically an ethnic group, the Mormons (Church of Jesus Christ of

Latter-Day Saints), who have strong historical ties to and own land along the Mormon Pioneer Trail, are commonly consulted. Because significant events associated with the historical formation of their religion occurred along the trail (Martins Cove Disaster, Willie's Handcart Disaster, Rock Creek Disaster, and the Sixth Crossing of the Sweetwater River Disaster and Rescue), and because of the numerous grave sites associated with Mormon families, many areas of the trail are treated as traditional cultural properties due to annual church pilgrimages.



6. Existing Partnerships

- Wyoming State Historic Preservation Office, through cost-share assistance agreements, for automating current and backlogged cultural resource records and for promoting Wyoming Archaeological Awareness Month and Project Archaeology.

- Two facilities, through cost-share assistance agreements, for BLM collections inventory and curation facilities improvement.

- Academic institutions, through multiple cost-share assistance agreements, for data recovery work, ethnohistoric studies, artifact analysis, and research.

- Over 20 separate organizations, including various Stakes of the Latter-Day Saints Church, the Oregon-California Trails Association, the U.S. Forest Service, and the National Park Service, to establish permanent trail markers along the Oregon/California–Mormon Pioneer–Pony Express National Historic Trails.

- Various museums, through ongoing partnerships, to display, exhibit, and interpret BLM cultural resources.

- U.S. Army Corps of Engineers to conduct leading-edge research on the effects of lichen on rock art and methods to mitigate damage.

7. Economic Benefits

- Wyoming BLM's largest tourism draws are derived from the historic trails system, Native American petroglyphs,

historic mining sites, and ongoing archaeological excavation projects. By far, however, the trails receive the most attention. Wyoming BLM has established an extensive and significant interpretive program on the main routes of the National Historic Trails. Best estimates based on figures from the Wyoming Department of Tourism and various chambers of commerce studies are that Wyoming receives about 1,000,000 visitors per year using trails-related sites. These figures will likely increase dramatically when the BLM's National Trails Center opens in Casper.

- Petroglyph sites receive less publicity, but still manage to draw considerable visitation, with various sites drawing an estimated 29,000 visitors per year.

- Historic mining sites are also an attraction for cultural tourism in Wyoming. Approximately, 90,000 people visited historic mining sites last year, of which 61,000 of them went to the South Pass Historic Mining District.

- Visitors are also attracted to public lands by both recreational caving and hunting. Almost all of the caves for which recreational visitation data are kept are also prehistoric archaeological sites. BLM's Recreation Management Information System data for fiscal year 2000 show that Horse Thief Cave alone received almost 700 visitors. Many other caves and rock shelters show recent use by hunters for campsites. On the west slope of the northern Big Horn Mountains, where most of the archaeological cave sites and rock shelters managed by BLM are situated, it is estimated from Recreation Management Information System data that this area receives close to 55,000 backcountry visitors.

Paleontological Resources

I. Program Summary

Within the 18.4 million surface acres that the BLM administers in Wyoming, there are approximately 40 active Paleontological Resource Use Permits each year. As a result, it is estimated that about 400 people are involved in the collection and analysis of fossil material and data annually from these activities.

Paleontologists work to answer complex questions, not only about the fossils themselves, but also about ancient environments, the position of drifting continental plates, and the relationships of plant and animal groups to each other over time.

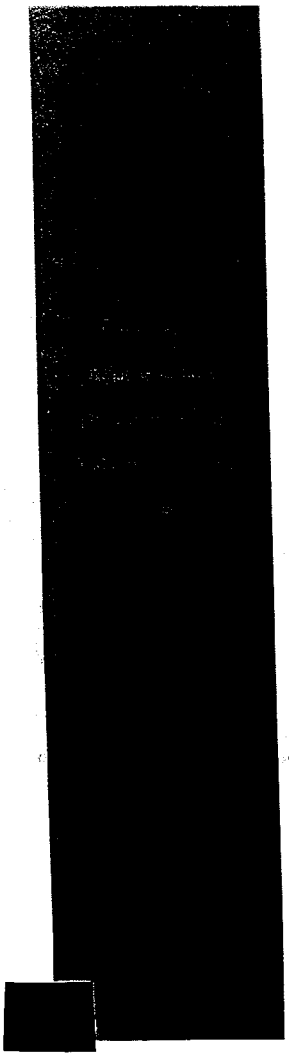
Wyoming has several areas designated for special management to protect fossils that represent important geologic or evolutionary events. Wyoming BLM has an active monitoring program and works closely with researchers and others in the field. As a result, the BLM has initiated or taken part in several law enforcement cases involving unauthorized activities relating to paleontological resources.

2. State Paleontological History

Wyoming has a worldwide reputation as a source of fossils that range from almost a half billion years old to Ice-Age fossils that are only a few thousand years old. Rocks of every geologic era, period, and epoch are represented. For much of geologic time, Wyoming was part of a central landmass that accumulated thick sediments on what were, through time, ocean floors, rain forest rivers, large lakes, and savannas. As a result of the uplifting of the Rocky Mountains 65 million years ago, these sediments have eroded, creating vast areas of badlands which have bare exposures and rapidly eroding slopes that are perfect places for finding fossils.

3. Paleontological Resources at Risk

Among the paleontological resources at risk are four Areas of Critical Environmental Concern, which comprise about 9,300 acres. These areas highlight representative fossil resources, such as sites where dinosaur bones were collected in the 1870s and more recent dinosaur quarries like the "Big Al" *Allosaurus* site and the Red Gulch Dinosaur Tracksite near Greybull. These and many other areas containing fossils are vulnerable to oil and gas development, pipeline construction, mining, recreational activities, and, perhaps more insidious, vandalism and unauthorized collection. Law enforcement support is inherently difficult due to the number of personnel and expanse of areas under BLM's jurisdiction.



4. Major Accomplishments

- Designated an Area of Critical Environmental Concern at Red Gulch Dinosaur Tracksite in 1999.
- Integrated geographic information system technology for use in predictive strategies for fossil occurrences.

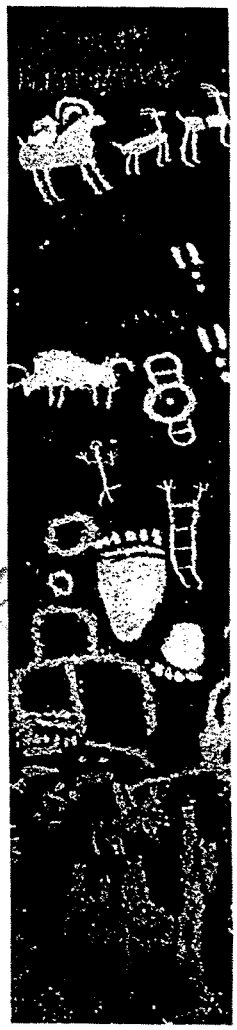
5. Existing Partnerships

- The University of Wyoming to salvage dinosaur fossils from a locality where they were illegally excavated.
- The University of Colorado Museum to digitize fossil localities in southwestern Wyoming.
- The University of Wyoming, the South Dakota School of Mines and Technology, and the University of Colorado Museum of house and care for fossils from public lands in Wyoming and to provide paleontological expertise.

6. Economic Benefits

Dinosaur tourism has become a big industry in the West. Well-organized groups such as Earthwatch and Elderhostel conduct tours that bring the public to parts of Wyoming that other visitors don't normally come to see. This provides opportunities for out-of-the-way communities to benefit economically.

Recommendations



BLM's Cultural Heritage Program is confronted with a staggering array of responsibilities. While this report has focused primarily on the on-the-ground management of archaeological, historical, and paleontological resources, by no means are cultural heritage staff duties limited to these areas. Duties also include curating museum collections emanating from public land sites now being stored in Federal and non-Federal museums, consulting with Indian tribes and Alaska Native corporations under various cultural resource statutes, coordinating with law enforcement to protect threatened sites, permitting scientific research, implementing educational initiatives using cultural and paleontological resources, conducting section 106 reviews on upwards of 8,000 annual land use applications, and so much more. And all of this is accomplished with a budget of $13.8 million and a Bureauwide cultural heritage staff of approximately 145 professionals! In comparison, the National Park Service and the U.S. Forest Service both manage less land and fewer resources with considerably more staff and money.

Also, as this report has indicated, the BLM's cultural and paleontological resources are seriously at risk. The threats to the resource base are the result of malicious intent, inadvertent actions, increased access, and greedy self-interest, as well as inaction—the failure or inability to counter the deleterious effects of time and natural forces. As a result, current and future generations are being deprived of an opportunity to understand the dynamic forces and events that shaped our country and to experience the places where these events actually took place.

Clearly, BLM field offices have had to look at creative solutions for addressing the massive protection, stabilization, and management issues with which they are confronted. Bureauwide, volunteers and cost-share arrangements have augmented BLM's capability by at least one-fourth, annually leveraging the cash equivalent of more than $3 million in work for the benefit of BLM's Cultural Heritage Program. Some of our States, notably Colorado and Arizona, have made tremendous use of outside funds, tapping into their States' lottery and gambling profits to obtain more than $2 million in grants in recent years to accomplish critical work. Outside funds have also been obtained through these and other such sources:

- Save America's Treasures program, which is a national effort to protect America's threatened cultural treasures

- Intermodal Surface Transportation Efficiency Act (and its successor, the Transportation Equity Act for the 21st Century) grants, which provide transit enhancement funds to carry out historic preservation work at sites along transportation routes

- "Green sticker" funds, which are from fees paid by off-highway vehicle users for adequate and managed facilities and safeguards to protect natural, cultural, and historic resources on public lands

We've also made strides in obtaining a share of BLM's "deferred maintenance" money to address the stabilization needs at some of our standing historic structures. Some States have established Site Steward programs, in cooperation with State and other Federal entities, to patrol and monitor threatened sites. Additionally, BLM continues to encourage universities to operate field schools and conduct research on public lands to enhance our understanding of the vast resource base.

Still, in the years ahead, our responsibility to protect and preserve the Nation's cultural and paleontological resources will require yet more creative solutions. While ultimately it will be necessary to reconcile the staff and funding with actual need, there are other low- and moderate-cost measures that can be implemented in the coming months and years to focus increased attention on the threatened cultural and paleontological resources over which we exert stewardship responsibilities:

- Strive to make the public a full partner in the management and protection of the threatened cultural and paleontological resources, using existing tools such as the BLM's cultural heritage Web site (www.blm.gov/heritage) and "friends" organizations, as Congress envisioned when it amended the Archaeological Resources Protection Act in 1988.

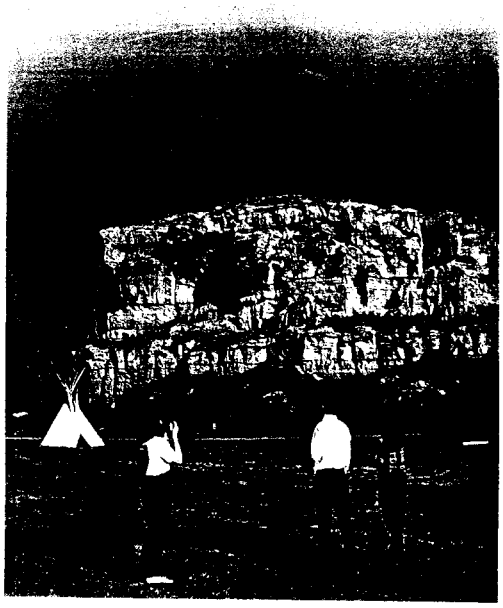
- Build on an existing assistance agreement between BLM's Cultural Heritage Program and the National Trust for Historic Preservation and tier off one of the Trust's most visible initiatives to annually identify, with the public's

assistance, BLM's 11 most endangered cultural heritage properties.

- Using BLM's Management Information System and other tools at our disposal, work to make sure that every conceivable dollar appropriated by Congress for the cultural resource management program is devoted for proactive cultural heritage work, including resource protection, stabilization, and interpretation.

- Work with our Congressional oversight committees to explain the need for a "stand-alone" paleontology program with its own appropriation and staffing.

- Continue to expand the use of nontraditional sources of funding, such as grants from non-Federal and private sources, Save America's Treasures, and the Intermodal Surface Transportation Efficiency Act to accomplish critical work.



LIST OF AUTHORITIES MANDATING MEANINGFUL CONSULTATION

THE AMERICAN INDIAN RELIGIOUS FREEDOM ACT ("AIRFA"; P.L. 95-341; 92 Stat. 469; 42 U.S.C. 1996)

> There is a compliance element in AIRFA, requiring that the views of Indian leaders be obtained and considered when a proposed land use might conflict with traditional Indian religious beliefs or practices and that unnecessary interference with Indian religious practices be avoided during project implementation.

THE FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 ("FLPMA"; P.L. 94-579; 90 Stat. 2743; 43 U.S.C. 1701)

> FLPMA requires coordination with Indian tribes, as well as with other Federal agencies and state and local governments, in the preparation and maintenance of an inventory of the public lands and their various resources and other values; in the development and maintenance of long-range plans providing for the use of the public lands; and in the management of public lands.

CALIFORNIA DESERT CONSERVATION AREA PLAN ("CDCA"; 43 U.S.C. 1781(c))

> One of the goals of the Native American Element is to give full consideration to Native American values in land use planning and management decisions, consistent with statute, regulation and policy.

NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT OF 1990 ("NAGPRA"; P.L. 101-601; 25 U.S.C. 3001)

> Provides Federal agencies must consult with appropriate Indian tribes or individuals prior to authorizing the intentional removal of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony.

ARCHAEOLOGICAL RESOURCES PROTECTION ACT OF 1979 ("ARPA"; P.L. 96-95; 93 Stat. 721; 16 U.S.C. 470aa)

> Provides for the protection and management of archaeological resources, and specifically requires notification of the affected Indian tribe if archaeological investigations proposed in a permit application would result in harm to or destruction of any location considered by the tribe to have religious or cultural importance.

RELIGIOUS LAND USE AND INSTITUTIONALIZED PERSONS ACT OF ("RLUIPA"; 42 U.S.C. § 2000cc)

> No government shall impose or implement a land use regulation in a manner that imposes a substantial burden on the religious exercise of a person, including a religious assembly or institution, unless the government demonstrates that imposition of the burden on that person, assembly, or institution, is in furtherance of a compelling governmental interest and is the least restrictive means of furthering that compelling government interest.

NATIONAL HISTORIC PRESERVATION ACT OF 1966 ("NHPA"; P.L. 89-665; 16 U.S.C. 470-470t; 80 Stat. 915)

> Directs Federal agencies to ensure that the agency's preservation-related activities are carried out in consultation with other Federal, State, and local agencies, Indian tribes, [and others] carrying out historic preservation planning activities.

EXECUTIVE ORDER No. 13007 (Indian Sacred Lands) (1996)

> In managing Federal lands, each executive branch agency with statutory or administrative responsibility for the management of Federal lands shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, 1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and 2) avoid adversely affecting the physical integrity of such sacred sites.

EXECUTIVE ORDER No. 13175 (Consultation and Coordination with Indian Tribal Governments) (2000)

> As a fundamental principal, in formulating or implementing policies that have tribal implications, agencies shall be guided by the following fundamental principals: that the United States has a unique legal relationship with Indian tribal governments as set forth in the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions, and, that the United States continues to work with Indian tribes on a government-to-government basis to address issues concerning Indian tribal self-government, tribal trust resources, and Indian tribal treaty and other rights.

BLM POLICY MANUAL Sections 8160 (1990) and 8160-1 (1994) "Native American Coordination and Consultation" and "General Procedural Guidance for Native American Consultation"

recommendations do not overlook Native American concerns for reporting to appropriate officials any Native American concerns that are identified to them; and for assisting in the BLM's execution of its Native American coordination and consultation responsibilities. (1990)

Before making decisions or approving actions that could result in changes in land use, physical changes to lands or resources, changes in access, or alienation of lands, BLM managers must determine whether Native American interests would be affected, observe pertinent consultation requirements, and document how this was done. (1994)

THE SECRETARY OF THE INTERIOR
WASHINGTON

Rescission of Record of Decision
for the Imperial Project Gold Mine Proposal

On January 17, 2001, Secretary Bruce Babbitt signed a Record of Decision denying the Glamis Imperial Corporation's Imperial Project Gold Mine Proposal. On October 23, 2001, in a Solicitor's Opinion entitled Surface Management Provisions for Hardrock Mining, the Solicitor recommended rescission and reconsideration of the decision denying Glamis's Plan of Operations. On the same day, I concurred in the Solicitor's Opinion. Therefore, based on the legal analysis in the Solicitor's Opinion, I hereby rescind the Record of Decision denying the Imperial Project Gold Mine Proposal so that the proposal may be reconsidered.

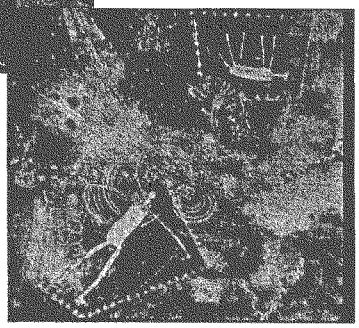
Gale A. Norton
Secretary of the Interior

Nov. 23, 2001
Date

Bureau of Land Management

Strategic Paper on Cultural Resources At Risk

Blythe Intaglios, September 1952
National Geographic photo



Blythe Intaglios, early 1970's

June 2000

Attachment 1-1

BLM Cultural Resources At Risk

Executive Summary

The BLM manages the largest, most diverse and scientifically most important body of cultural resources of any federal land managing agency. However, much of this cultural resource base is seriously threatened. This "Great Outdoor Museum," which has the potential to document the full sweep of western prehistory and history, will soon lack sufficient integrity and representativeness to relate anything more than minor anecdotes.

Although we have done a good job of complying with Section 106 of the National Historic Preservation Act, we are failing to actively manage the resources entrusted to us. Our Section 106 compliance efforts have resulted primarily in finding cultural properties and avoiding them, or allowing them to be destroyed after mitigation. While this is a form of preservation, it is not the same as long-term management of cultural properties for the full range of values they contain.

Natural and human-caused threats are reducing our opportunities for interpreting sites, for providing long-term access to properties valuable to Native Americans and other ethnic groups, for promoting and facilitating scientific research, and for conserving properties for the future. Increasing visitation to the public lands is resulting in intentional and inadvertent damage through collection, vandalism, surface disturbance, and other depreciative behavior. Increasing land use authorizations for rights-of-way, mining, public facilities and other legitimate and necessary uses of the public lands continue to result in an ever-diminishing cultural resource base. With every year that passes, the diversity of our cultural resources is reduced, and we lose more of our ability to tell the story of the public lands.

A recent Office of Inspector General (OIG) audit identified several critical weaknesses in BLM's cultural resource management program. The OIG found that we lack a long-range plan to survey areas for the purpose of understanding human behavior and use of the land. The OIG also found BLM deficient in other proactive efforts including stabilizing sites, interpreting sites, and preparing historic contexts, project plans and National Register nominations. Not surprisingly, the OIG found that BLM cultural heritage staff spend 70 to 99 percent of their time on Section 106 compliance work, as opposed to proactive cultural program work.

A major reason for the deficiencies cited by the OIG is the flat staffing level maintained by our cultural program for the past 25 years, especially compared to the National Park Service and U.S. Forest Service which manage less land and fewer cultural resources. The U.S. Forest Service, which has a similar mission, manages 27 percent fewer acres than BLM but employs 28 percent more cultural heritage specialists. NPS manages less than one-third the acreage of BLM but employs more than five times the number of cultural resource personnel. Despite the flat staffing

levels, our Section 106 compliance workload continues to increase every year. The national Programmatic Agreement BLM entered into to streamline its Section 106 work has failed to free up a significant amount of time for proactive work. What little slack resulted from the Programmatic Agreement has been quickly absorbed by increasing compliance work and a host of new legal requirements in other areas such as Native American consultation.

Figure 2 Petroglyphs in Moonflower Canyon near Moab, UT

BLM's cultural heritage staff have exhausted all available means to expand the level of proactive work accomplished, including making the Section 106 process more efficient, using term appointments, temporary hires, and volunteers, expanding the number of outside challenge cost share partnerships with state, federal and private entities, contracting with outside entities, and creatively and aggressively pursuing new sources of funding. Without additional staff and funding, our proactive efforts will continue to decline.

Another major reason for the critical weaknesses cited by the OIG is that Section 106 compliance work is being funded improperly with cultural program (subactivity 1050) dollars, while proactive work is being accomplished largely through external funding sources, volunteer labor, and time contributed by BLM employees. The Bureau's lack of adherence to its longstanding policy of coding Section 106 compliance work to the benefitting subactivities has kept the cultural program from using its own budget to actively manage cultural properties.

Several measures are recommended to address the risks to our cultural resources by promoting a more proactive program. These include recognizing and awarding excellent staff and managers, enlisting the aid of a Field Committee member to implement recommendations, working with the WO Budget Office and Budget Strategy Team to ensure that compliance work is funded by the benefitting subactivities, developing an "Opportunities Book" to highlight protection needs for priority cultural resources, expanding the cultural heritage program annual report to highlight successful proactive efforts, developing a training module at National Training Center (NTC) on proactive management, and evaluating Management Information System (MIS) budget data to ensure that 1050 funds are being used appropriately.

What BLM Cultural Resources Are At Risk?

The BLM manages the largest, most diverse and scientifically most important body of cultural resources of any federal land managing agency. These resources, which represent the BLM's "Great Outdoor Museum," span virtually the entire spectrum of human experiences since people first set foot on the North American continent more than 13,000 years ago. This "Great Outdoor

Museum" provides a unique opportunity for BLM to document the full sweep of western prehistory and history, and tell the complete story of people on the western lands. No other federal land managing agency can make this claim. However, BLM's ability to relate the complete and unbroken story of western land use and occupancy can only be realized if a representative and relatively pristine body of cultural resources is preserved into the next millennium. At this moment in time, so much of the cultural resource base is at risk that it will soon lack sufficient integrity and representativeness to relate anything more than anecdotal accounts of western land use.

To date, almost 229,000 archaeological and historical resources have been recorded on the roughly 13.9 million acres of public lands that have been inventoried, which represents roughly 5 percent of all lands administered by the BLM. Projecting these figures to the entire 264 million acres of BLM-administered lands works out to an estimated 4 to 4.5 million potential archaeological and historical properties on the public lands. These sites range from 13,000-year-old mammoth kill sites associated with Paleoindian hunters, to prehistoric complexes of Anasazi pueblos and cliff dwellings, through Spanish and Russian period exploration and settlement sites, to Western frontier forts, Gold Rush era cabins, and more recent historic sites documenting westward migration, mining, ranching, railroading, and even WWII and Cold War military sites.

Currently, BLM has 255 listings on the National Register of Historic Places, encompassing more than 3,610 contributing properties, 22 National Historic Landmarks, and 5 World Heritage sites. Portions of 8 National Historic Trails covering 3,500 miles cross the public lands, while at least 5,000 additional miles occur along 10 non-designated historic trails. Standing structures, very conservatively estimated to number 1,500, include prehistoric pueblos, cliff dwellings, antelope and bighorn sheep traps, and agricultural features, as well as historic-period mining structures (such as smelters, mill sites, arrastras, and charcoal kilns), ranch buildings, adobe forts, stage stops, townsites, lighthouses, cabins, a salt tram, and Depression-era schoolhouses.

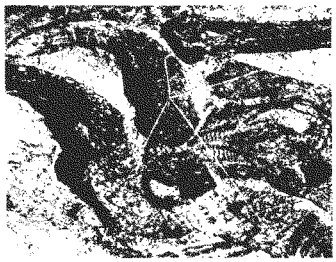


Figure 4 Closeup of mammoth skull at Murray Springs

These resources and others are all at risk to a greater or lesser extent, although objective estimates of the extent of damage and destruction are virtually non-existent. Still, we have indications of alarming trends. We know that close to 100 percent of the "classic" Mimbres sites in southwestern New Mexico have been looted and destroyed. Similarly, in the Four Corners states, where more than 150,000 sites have already been recorded, between 30 and 50 percent of all sites have been looted, while among the larger and more significant sites the percentage of looted sites may be closer to 90 percent. Also, there is evidence that specific site types are no longer represented on the public lands, such as prehistoric fishtraps along ancient Lake Cahuilla in Southern California. Rock art, one of the most visible and visually appealing resources, has often been vandalized with graffiti or attempts have been made to remove panels.

Many of the prehistoric pueblos and cliff dwellings in southeastern Utah's Grand Gulch, where more intact prehistoric plastered buildings occur than in Mesa Verde, are seriously threatened. By no means, however, are threats to archaeological and historical sites confined to looting and vandalism, as recreational activities, urban sprawl, overuse and natural erosion are increasingly taking their toll on our Nation's irreplaceable treasures.

BLM's cultural resources have vitally important preservation needs, including project planning, stabilization, monitoring, interpretation and "hardening" for visitor use. In connection with the recent preparation of the BLM's FY 2001 Budget Justifications, BLM State Offices identified more than $84 million in needs for management of 82 special areas, including almost $10 million for cultural resource work; more was requested for cultural resource management than for any other program except recreation. We fully expect that the funding required to deal with the most "at risk" cultural properties will be many times greater than this figure.

Because of the importance attributed to the cultural resources on the public lands by Native Americans or Alaska Native groups with ancestral links to public lands, and by local western communities, other ethnic groups, the public at large, scientists, educators, international visitors, and others, it is critical that these preservation needs begin to be addressed. By failing to address the critical and enormous cultural resource preservation and protection needs, we condemn our Nation's legacy to the mantelpiece of posterity.

Figure 5 Stabilization work at the Swansea Railroad depot, a project for which BLM Arizona received an Arizona Heritage Preservation Award in 1999

A new poll conducted by Harris Interactive for the Society for American Archaeology, underwritten by Federal agencies, including the BLM, found there is large scale support for laws protecting archaeological resources (96 percent) and use of public monies to preserve archaeological sites (80 percent). The poll found that most people (88 percent) have visited museums exhibiting archaeological materials, while 37 percent have visited an archaeological site.

Clearly, this widespread interest in archaeology will lead to continued impacts to archaeological sites from legitimate and illegitimate uses, particularly as the west becomes more urbanized. Also, the designation of new National Monuments, including those created because of their archaeological values, will make BLM lands better known and further strain BLM's ability to adequately protect its fragile cultural resources. The public interest in archaeological resources of the type that BLM manages in quantities greater than any other agency will require BLM to "harden" and interpret such resources to accommodate public visitation.

In addition to the legal and moral responsibilities we have to protect our cultural legacy, there is a more immediate reason for addressing this need. Recently, the Office of Inspector General (OIG) identified several critical weaknesses in the BLM's cultural resources management program. Among other things, the OIG report criticized the BLM for its failure to prioritize and conduct non-Section 106 cultural resource inventories on public lands deemed to have a high potential for important cultural resources. The failure to undertake such inventories creates a paradoxical situation where BLM may be managing less important known resources at the expense of more important but unknown resources.

Why are BLM's cultural resources at risk?

For the past 25 years, BLM has done a creditable job of complying with Section 106 of the National Historic Preservation Act. Yet, we are losing an important part of America's heritage by failing to actively manage the resources entrusted to us. Our efforts to comply with Section 106 have resulted primarily in finding cultural properties and avoiding them, or allowing them to be destroyed after mitigation. While this is a form of preservation, it is not the same as long-term management of cultural properties for the full range of values they contain. In many ways, Section 106 compliance is the very opposite of management.

Natural and human-caused threats are reducing our opportunities for interpreting sites, for providing long-term access to properties valuable to Native Americans and other ethnic groups, for promoting and facilitating scientific research, and for conserving properties for future study. The lessons we can learn from past cultures have direct relevance on the choices our society is faced with today. With every year that passes, the diversity of our cultural resources is reduced. We are losing our ability to tell the complete story of our Nation's history on the public lands by not fully meeting our responsibilities under the Federal Land Policy and Management Act and Section 110 of the National Historic Preservation Act to proactively manage this fragile legacy. Because of this situation, the American people are losing their connections to the land — their sense of place—and ultimately their respect for the past and its meaning as an anchor to the present and a guide to the future.

External Threats

Uncontrolled use. Uncontrolled use is the most immediate and pervasive threat to cultural resources on BLM lands. But one of the most enjoyable aspects of visiting BLM lands, compared to other federal lands, is the freedom experienced by visitors because of the lack of restrictions that are placed on them. The public lands are fast becoming more accessible, better known, and more intensively used. In many areas, urban sprawl, encroaching on previously remote areas, is turning the public lands into recreational backyards. The explosion in the use of mountain bikes and ATVs, and even the designation of backcountry byways, has dramatically increased visitation to lands that were previously used only by small numbers of hikers. This increased visitation inevitably results in intentional and inadvertent damage through collection,

vandalism, surface disturbance, and other depreciative behavior.

Authorized use. Along with increasing recreational use, we are seeing an increase in land use authorizations for rights-of-way, mining, public facilities, and other legitimate and necessary uses of the public lands. These uses will continue to result in an ever-diminishing cultural resource base, even when data recovery or other forms of mitigation are employed. Natural weathering and erosion, as always, play their part in this attrition.

Agency funding. The Bureau's budget has been flat over the last decade and has seen its workforce decline over this time period even though its workload has become more complex. This decline in budget and staff comes at a time when more and more Westerners recognize the crucial role that BLM lands play in maintaining the appeal and lifestyle of the fast-growing West. More than ever, the public is turning to BLM-managed land as the final frontier for wide open space, as an outdoor recreational playground that offers clean air and clean water, and as a sanctuary for solitude. A key reason for this growing appreciation, besides the inherent appeal of the lands themselves, is that BLM lands are in the public's backyard. Nearly two-thirds of the BLM lands located in the continental United States are within an hour's drive of urban areas. Yet, in spite of the accessibility of BLM lands and the fact that BLM manages more land–264 million acres–than any other Federal land-management agency, it manages this land on a fraction of the operating budget in contrast to the U.S. Forest Service and the National Park Service. BLM's operating budget amounts to funding at $2.82 an acre, as compared to $6.65 an acre for the Forest Service and $16.85 an acre for the National Park Service!

INTERNAL THREATS

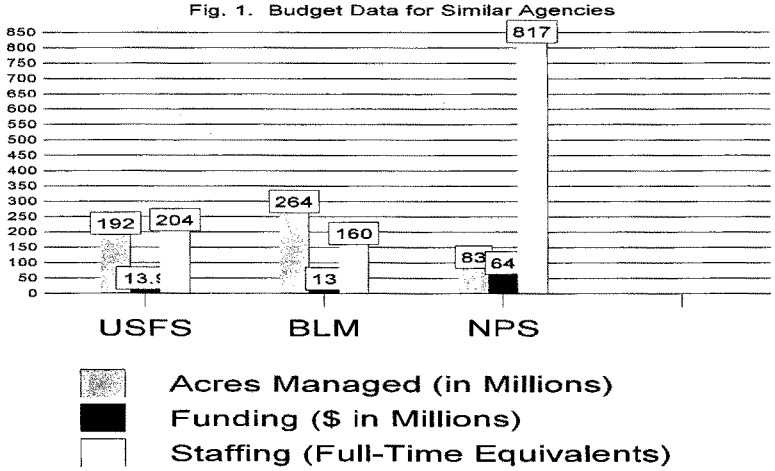
Critical weaknesses. As previously mentioned, the OIG's FY1999 audit of BLM's cultural heritage program cited several critical weaknesses. The OIG found that we lack a long-range plan to survey areas for the purpose of understanding human behavior and use of the land. Nearly all survey accomplished by BLM is done for purposes of Section 106 compliance. As such, it is haphazard in that the locations surveyed correspond exclusively to proposed land uses; they are not chosen using criteria that will help us gain representative samples from which we can derive scientifically based conclusions about the past. Annually, the amount of acreage inventoried in response to proposed land uses amounts to almost 500,000 acres, while that surveyed to gain an understanding of human uses of the land equals less than 5,000 acres.

The OIG also found that we are deficient in completing other proactive actions to effectively manage our cultural resources. Such actions include stabilizing sites, interpreting sites, and preparing historic contexts, project plans, and National Register nominations. The lack of historic contexts, in particular, hampers our ability to determine which cultural resources are, and which are not, important

Not surprisingly, the OIG found that BLM cultural heritage staff spend 70 to 99 percent of their time on Section 106 compliance work, as opposed to proactive cultural program work.

Staffing levels. The OIG's conclusions are consistent with the flat staffing level maintained by

Fig. 1. Budget Data for Similar Agencies



the cultural program over the past 25 years, as shown in the following graph. The U.S. Forest Service, with a mission similar to BLM's, manages 27 percent fewer acres but employs 28 percent more cultural heritage specialists. The NPS manages less than one-third the acreage of BLM yet has more than five times the number of cultural heritage personnel.

Excludes the National Park Service's Cultural Resources Applied Research, National Register, and Center for Applied Technology and Training Programs, as well as grants issued pursuant to the United States Code (25 U.S.C. 3001).

BLM is the largest federal land managing agency, yet has the fewest number of cultural heritage specialists. BLM reached its full staffing capability of 135 full-time professional cultural heritage staff in 1976. In the intervening 24 years, the number of full-time cultural heritage staff has not substantially increased, and in some States has decreased.

Despite the flat staffing levels, our Section 106 compliance workload continues on an upward trajectory with no end in sight. To streamline the Section 106 process, and expand opportunities to proactively manage our cultural resources, BLM entered into a national Programmatic Agreement with the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers in 1997. However, the goal of creating a better balance between compliance work and cultural program work has gone largely unfulfilled to date. What little slack resulted from the Programmatic Agreement has been quickly absorbed by both increasing compliance work and attention to a host of new legal requirements besides proactive responsibilities.

In the past few years, BLM has strongly increased its efforts to consult with Indian tribes and develop better working relationships with them. Indian trust issues have generated a critically important new workload as BLM has become more aware of its fiduciary responsibilities toward tribes. The Native American Graves Protection and Repatriation Act (NAGPRA) has generated a massive effort to identify Bureau museum collections in repositories throughout the country and consult with Indian tribes and Alaska Native groups on the treatment and disposition of human burial remains. At the same time, new regulations have mandated a much stronger role for BLM in assessing the condition of its museum property and the capabilities of repositories to curate it. Paleontology, a distinct profession in itself, is now a collateral duty for most cultural heritage specialists, adding to workloads associated with strategic planning, budget redesign, and other new demands on staff time.

Cultural heritage staff have exhausted all available means to expand the level of proactive cultural heritage program work accomplished. These efforts include streamlining the Section 106 process, using term appointments, temporary hires, and volunteers, expanding the number of outside challenge cost share partnerships with state, federal and private entities, contracting with outside entities, and creatively and aggressively pursuing new sources of funding, where available. Without an influx of additional people and funding, our proactive efforts will continue to decline.

As the following table indicates, in terms of challenge cost share and cooperative management agreements, the number peaked at 126 agreements in FY 1992 and steadily dropped to 75 in FY 1998, the lowest number since FY 1990; in FY 1999 the number of cooperative agreements jumped to 95, still well below the peak level.

Summary of Challenge Cost Share/
Cooperative Management Agreements
(1989-1998)

FISCAL YEAR	# of PROJECTS	COOPERATOR INPUT	BLM INPUT	COOP:BLM RATIO
FY1989	62	876,623	243,437	3.6:1
FY1990	71	1,484,333	299,440	5:1
FY1991	106	2,849,815	714,190	4:1
FY1992	126	3,221,120	722,072	4.5:1
FY1993	119	2,845,573	786,483	3.6:1
FY1994	120	2,400,000	933,000	2.5:1
FY1995	93	2,256,355	543,979	4.1:1
FY1996	83	2,487,271	458,060	5.4:1
FY1997	83	2,546,869	908,130	2.8:1
FY1998	75	2,170,881	717,520	3:1
FY1999	95	2,045,955	890,230	2.3:1

Similarly, in terms of the number of volunteer hours contributed to the BLM for the benefit of the cultural heritage program, the number peaked in FY 1992 and has gradually been declining since then.

Summary of Volunteer Statistics
in the CRM Program
(1986-1998)

FY	VOLUNTEER HOURS	HOSTED WORKER HOURS	TOTAL CRM HOURS	ESTIMATED VALUE	TOTAL BLM HOURS	PERCENTAGE OF PROGRAM
FY1986	31,790*	N.A.	31,790	272,704	397,373	8.00
FY1987	51,525*	N.A.	51,525	494,124	515,258	10.00
FY1988	81,669*	N.A.	81,669	780,756	583,351	14.00
FY1989	84,772*	N.A.	84,772	841,490	771,087	11.00
FY1990	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
FY1991	132,685*	N.A.	132,685	1,649,690	918,460	14.44
FY1992	175,546*	N.A.	175,546	2,404,131	1,060,184	16.56
FY1993	153,966*	N.A.	153,966	1,883,729	1,237,263	12.44
FY1994	135,823*	N.A.	135,823	1,788,682	1,333,359	10.19
FY1995	123,069*	N.A.	123,069	1,372,219	1,219,490	10.09
FY1996	83,500	5,999	89,499	1,008,654	1,097,115	8.16

FY1997	146,016	7,499	153,515	1,926,613	1,149,294	13.36
FY1998	111,446	7,390	118,836	1,699,355	1,345,882	8.83

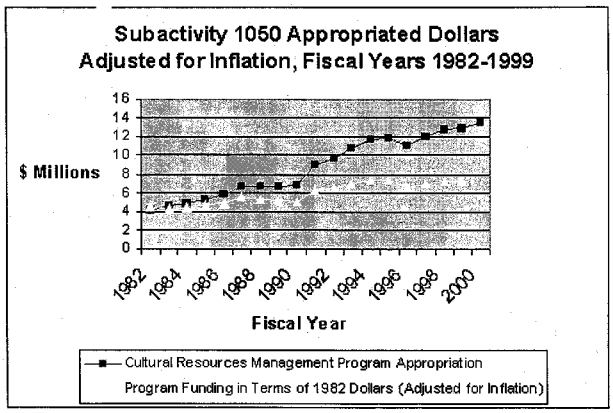
* includes Hosted Worker Hours

Cultural program funding

The table and graph below show the appropriated level of funding for the cultural heritage program (variously, subactivity 4331 or 1050) from FY 1982 through FY2000, adjusted for inflation to 1982 dollars. While the program has experienced a gradual increase in funding over this 19-year period, there have been two periods where the "real" dollars, adjusted for inflation, have actually decreased, from FY 1987 through FY 1990 and again from FY 1994 through FY 1996. Looking at the time period from FY 1982 through FY 1999 (inflation figures are not yet available for FY 2000), while appropriated dollars increased by 285 percent, the "real" increase actually amounted to only 163 percent.

FY	Budget (000)	FY Budget Adjusted to FY82 Dollars (000)
FY82	$ 4.510	$ 4.510
FY83	4.566	4.299
FY84	4.843	4.419
FY85	5.279	4.618
FY86	5.783	4.883
FY87	6.618	5.484
FY88	6.629	5.302
FY89	6.614	5.082
FY90	6.801	4.986
FY91	8.906	6.195
FY92	9.689	6.468
FY93	10.704	6.938
FY94	11.801	7.426
FY95	11.959	7.334
FY96	11.000	6.582
FY97	12.059	7.005
FY98	12.722	7.267
FY99	12.898	7.367
FY00	13.440	N.A.

Source: http://www.westegg.com/inflation/



Competing for additional program funding. BLM's ability to compete for additional cultural resource funds outside the normal budget process is hindered by a bias against funding historic preservation work for the type of cultural resources which BLM predominantly manages, namely, prehistoric resources. This is clearly reflected in Congressional direction and funding for the Millennium Grants to Save America's Treasures program, the First Lady's initiative to protect America's vanishing cultural legacy. In FY 1999, grant proposals required a dollar-for-dollar match by non-federal partners, and a minimum of $50,000 in matching grant monies. Sixty-two grants were awarded at a total cost of $30 million. Only 2 of the projects related to prehistoric resources, neither of which called for archaeological work or involved BLM archaeological resources.

Again, in FY 2000, Congress appropriated money for Save America's Treasures grants. This year they have earmarked half of the $30 million appropriation for standing historic structures in urban settings (vs. rural settings, where most BLM resources are situated). While the remaining money is available for agencies receiving their funding through the Interior and Related Agencies Appropriation Act to compete for, the amount that must be matched by non-Federal partners has been raised to $250,000. This effectively precludes BLM from competing for the sort of on-the-ground historic preservation projects for which BLM desperately requires funding. Typically, BLM cooperative projects are small scale efforts. Also, by comparison with agencies such as the National Park Service and the Fish & Wildlife Service, BLM does not have an agency foundation that can help with partner fund-raising.

Misuse of cultural program funds. In most States, compliance work is being funded improperly with cultural program dollars, while proactive cultural program work is being accomplished largely through external funding sources, volunteer labor, and time contributed by BLM employees. The Bureau's lack of adherence to its longstanding policy of coding Section 106

compliance work to the benefitting subactivity has kept the cultural program from using its own budget to actively manage the properties we administer. Very preliminary data from the Bureau's newly-instituted Management Information System (MIS) indicates that through slightly more than half of the current fiscal year in excess of $415,000 of 1050 money has been spent inappropriately supporting benefitting subactivities; this represents more than 6% of the 1050 budget spent as of April 28, 2000! As long as the cultural program continues to subsidize the cost of compliance work for other programs, it will be unable to move forward with its own program or respond to the weaknesses identified by the Office of Inspector General audit.

How Do We Address The Risk?

There is no "silver bullet"that will magically alleviate the various financial, administrative, staffing, and systemic reasons that place the BLM's cultural resources at risk. Many of these problems have been with us since the inception of the BLM's cultural heritage program, while others have been exacerbated in recent years.

In the long-run, it is imperative that we begin to increase the level of personnel working in the cultural heritage programs. What the "ideal" staffing level should be is unclear. As the OIG report acknowledges, "the Bureau of Land Management has significantly more acreage to oversee, fewer resources. . ., both staffing and funding, to accomplish the Cultural Resource Management mission" than the U.S. Forest Service or National Park Service. On top of that, BLM cultural resource personnel are responsible not only for all the section 106 compliance and proactive activities, but are also normally given lead responsibility for NAGPRA compliance, collections management, paleontology, and Native American consultation and coordination over a wide range of Bureau programs and issues (including Archaeological Resource Protection Act investigations). Clearly, the issue of scarce skills within the cultural heritage program must also be addressed. By doing so, the BLM also has an opportunity to increase the diversity in its workforce.

In the short-term, we think that it is possible to incrementally ameliorate the situation by beginning a serious discussion of the most critical issues affecting the BLM's cultural heritage program and by implementing modest steps to foster a comprehensive proactive program. Such a proactive program would be one where the majority of our work is <u>not</u> driven in reaction to the demands of other BLM subactivities, but rather where cultural resources would be managed for their many benefits to today's and tomorrow's publics, including for their scientific and educational values.

What is our comprehensive proactive cultural program?

A comprehensive proactive program would encompass and expand upon many of the elements of the outreach program BLM had in place in the early 1990's, when its *Adventures in the Past* initiative was at its zenith. This initiative was developed partially in response to one of the 1988 amendments to the Archaeological Resources Protection Act (ARPA) requiring federal land managers to establish a public outreach program explaining the value and importance of archaeological resources. Under our *Adventures* initiative, which served as the BLM's "umbrella" public outreach program, the BLM hosted a series of regional, commemorative and thematic events. These events served to make the public aware of our Nation's legacy and its value, to increase opportunities for the public to enjoy the resources, and to enlist the public in safeguarding them. The early 1990's also corresponded with the period in which BLM developed the Strategic Plan for its Heritage Education Program and established its Heritage Education Team at the Anasazi Heritage Center in Dolores, Colorado.

An updated version of *Adventures* would now also entail more on-the-ground stabilization and restoration work to stem the physical deterioration that many of our archaeological and historical resources are experiencing. Additionally, a comprehensive proactive program would encompass more on-the-ground inventory and interpretation, an expansion of our Heritage Education Program and more off-site education and interpretation, as well as expanded fund-raising and partnership development.

The components for establishing a comprehensive cultural program are already laid out within our BLM manual. This means that we already know what we need to do and how we should do it. Our present manual guidance, based on legal mandates, provides direction for a wide range of (non-Section 106-driven) activities, including physical protection of sites through enforcement and monitoring, managing sites for scientific research and public use, and performing proactive outreach educational efforts as envisioned in our Heritage Education Program Plan. Instituting such a proactive program would finally enable BLM to fulfill its mandates under other laws and requirements for the management of cultural resources, including those specified in Section 110 of the NHPA, ARPA, and FLPMA.

What are examples of successful proactive efforts?

In some cases, we have been able to achieve remarkable successes under mandates other than Section 106. One was at the historic mining town of Swansea in Arizona. There a Field Office was able to marshal a variety of partners and funding sources to stabilize a significant property for future enjoyment and education of the public. Although the success was remarkable, this project was done primarily with volunteers, contributed time, and funding from non-BLM sources. The unfortunate fact is that projects like Swansea are being accomplished in spite of BLM's lack of support rather than with the support that a proactive program would provide. If the Bureau had a comprehensive proactive program in place, more than the last-remaining 20 percent of the site could have been salvaged for public benefit.

Similarly, the BLM has achieved great success with its Heritage Education Program. In the early

1990's, the Director chartered the development of a far-reaching, "flagship" archaeology education program to help educate America's youth about the value of our Nation's heritage and the need to protect it. Through that effort, most states now have (or are developing) Project Archaeology programs (i.e., State Student Handbooks documenting a state's culture history, teacher workshops and newsletters). The Heritage Education Program has achieved other notable successes with the creation of videos and brochures, as well as special educational inserts in "Science and Children," the National Science Teachers Association magazine for elementary school teachers, that reaches hundreds of thousands of teachers and students nationwide. This has been accomplished in spite of the fact that the full complement of 10 heritage educators needed to implement the 11 components of the Director's Heritage Education Strategic Plan have never been fully mobilized; full-time heritage educator positions have never exceeded four.

Still another success has been in one of our largest, most remote archaeological properties, the 266,000-acre Tangle Lakes Archaeological District in central Alaska, a National Register of Historic Places property. Through cultural resource inventories started in the 1970's, we have been able to identify over 500 sites, making it the richest concentration of archaeological sites known in the sub-Arctic, with some sites over 10,000 years old. Even greater success could have been achieved had the District had a full-time archaeologist during the past 14 years, rather than during only 8 of these years. Now, with the increasing pace of recreational use, little more than keeping up with the rising Section 106-related workload is possible. Over 75 percent of the District still needs survey work, and site damage is rising.

What Specific Measures are Recommended?

1. Encourage excellence within the cultural resource management program through recognition and awards for outstanding cultural staff and managers. Issue Instruction Memorandum soliciting nominees. (WO-240; July 2000)

2. Enlist a "champion" from among the ranks of upper level management to facilitate implementation of the recommendations outlined in this strategic paper, including working through this individual to enlist Field Committee, ELT, and WO support for additional personnel in the cultural heritage program. (WO-240; June 2000)

3. Continue to work with the WO Budget Office and the Budget Strategy Team to ensure compliance with the Bureau's long-standing policy of coding section 106 work to benefitting subactivities so that cultural dollars can be appropriately allocated for proactive cultural heritage program work. (WO-240; on-going)

4. Solicit State recommendations for priority "at risk" cultural resources requiring immediate protection and treatment, and highlight these resources in an "Opportunities Book" showing how potential "new" money would be used to treat these properties (WO-240; July 2000)

5. Expand the existing cultural heritage program annual report to provide additional State

program statistics and to highlight successful proactive efforts. (WO-240; August 2000)

6. Develop a training module at NTC for cultural resource specialists on implementing a proactive cultural heritage program. Also, evaluate the need for a cultural training coordinator at NTC. (Preservation Board; July 2000)

7. Evaluate budget data in MIS to determine if State1050 allocations are being utilized appropriately. (WO-240; on-going)

8. Solicit Field Office recommendations and suggestions on ways of achieving a better balance between proactive CRM efforts and Section 106 compliance. (WO-240; July 2000)

How Should this Strategic Paper Be Used?

This Strategic Paper was developed to draw attention to the fact that BLM's cultural properties are increasingly at risk, to highlight some reasons why this is so, and to begin to focus management attention on the problem. This report also spotlights a few of the successes that have been achieved in the program over the years, and underscores the fact that Field Offices generally understand what constitutes a fully functioning proactive cultural heritage management program because collectively they've had most of the components in place for years.

Specifically, this report can be used to: (1) respond to the critical weaknesses identified in the OIG; (2) realign the Bureau's proactive cultural resource management program to reflect the Secretary's emphasis on a National System of Conservation Lands; (3) document the impact on the Bureau's cultural heritage program of having cultural funds diverted to support benefitting subactivities; (4) justify additional program needs for implementation of ARPA; and (5) inform outside constituents of BLM's commitment to proactive work and our willingness to work with them in cost-share arrangements.

While the findings and recommendations in this Strategic Paper are primarily targeted towards an internal BLM audience (WO managers, WO Budget Office, BLM Field Office managers, Budget Strategy Team, cultural resource specialists), they are equally valuable for outside entities, such as constituent organizations, State Historic Preservation Officers, the Advisory Council on Historic Preservation, partners, cooperators, and such. Ideally, the findings in this report would be used to bolster our case, both internally and externally, for why BLM requires additional personnel and funding to protect its increasingly threatened cultural resources.

EXCERPTS FROM NATIONAL RESEARCH COUNCIL REPORT ON HARDROCK MINNG ON FEDERAL LANDS 1999

" The Committee is not clear about the extent to which existing laws and regulations, such as the Historic Preservation Act, the American Indian Religious Freedom Act, and various state laws, adequately protect cultural resources and tribal interests. It is also not clear if cultural resources and tribal concerns are protected by ... BLM's authority to avoid "unnecessary or undue degradation." (Pages 70-71).

"Conclusion: Misunderstandings of the term "unnecessary or undue degradation" (FLPMA, 1976 [43 U.S.C. Section 7401 et seq.]) leave some BLM field staff uncertain whether the agency has the authority to protect valuable resources, such as riparian habitats, that many not be specifically protected by other laws. **Recommendation: BLM should prepare guidance manuals and conduct staff training to communicate the agency's authority to protect valuable resources that may not be protected by other laws."** [Emphasis in original]. (Page 7).

"The Committee was consistently frustrated by the inability of federal land management agencies to provide timely, accurate information regarding how they manage their lands and the status of mining projects under their jurisdiction. The agencies could provide only approximate information regarding protected lands under their jurisdiction, the area of land currently subject to mining claims, the area covered by land use plans, and other basis land use statistics.

Information about current mining activities was even scarcer. The lack of information appeared to be greatest among highly placed officials who have the greatest need to know. Consequently, those responsible for regulatory management and change, and for keeping the public and Congress adequately informed, appear to be severely limited in their ability to do so.

More specifically, the Committee found it difficult to obtain comprehensive information on agency failures to prevent unnecessary or undue degradation on federal lands." (Page 75).

The NRC Report found that, "[a]reas defined in land use plans as requiring special protection can be withdrawn from mineral entry within legislatively prescribed limits." (Page 118).

"Recommendation 13: BLM and the Forest Service should identify, regularly update, and make available to the public, information identifying those parts of federal lands that will require special consideration in land use decisions because of natural or cultural resources or special environmental sensitivities. [Emphasis in original].

Lacking information on the important natural and cultural resources and environmental sensitivities of federal lands, miners are at risk of investing in exploration and then being denied a permit or being permitted under unfavorable terms.

Riparian zones, cultural and religious sites, unique ecosystems, and other settings on federal lands are now generally recognized as deserving special consideration in determining the appropriateness and management of mining." (Page 117).

"Mining on public lands is controversial and many people hold strongly opposing views. Some people value mining for what it contributes to the national economy and war efforts. Others are more concerned with pollution and environmental issues than with mineral production. Both sets of values are important and needed in the debate, but a shift toward more environmental concern is causing difficulties for federal land management agencies as they try to adjust to these changes in public values." (Page 87).

Sacred Sites Are More Precious Than Gold

Protecting Quechan Indian Pass

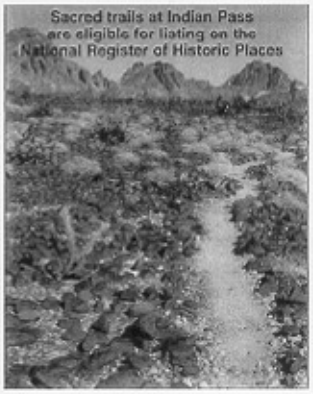
Tribal member teaching Quechan youth at Indian Pass

The Tribe's aboriginal lands include the Quechan Indian Pass area, now owned and managed by the federal government. This area contains some 55 known historic properties and important religious sites including prayer circles, shrines, petroglyphs and spirit breaks linked by ancient trails.

Aerial photo of the nearby Mesquite Mine

The Quechan Indian Nation is located along both sides of the Colorado River near Yuma, Arizona. The Quechan are the third largest California land-based tribe and have about 3,000 members living on the reservation. The Tribe balances life in modern times by maintaining a strong connection to their history and ancestors.

Sacred trails at Indian Pass are eligible for listing on the National Register of Historic Places



Glamis Gold, Ltd., a Canadian company, proposes to dig a massive, open-pit, cyanide heap-leach gold mine on 1,600 acres of public land in the heart of this protected area.

The Tribe has utilized this sacred area since time immemorial for religious, ceremonial and education purposes. The Quechan are fighting to see it protected for future generations.