HARDROCK MINING ISSUES

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY
AND MINERAL RESOURCES

OF THE

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HOUSE OF REPRESENTATIVES

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CONTENTS

HARDROCK MINING ISSUES

MONDAY, september 22, 1997

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES, COMMITTEE ON RESOURCES,
Elko, Nevada.

The Subcommittee met, pursuant to notice, at 9:10 a.m. at the Stockman Hotel, 340 Commercial Street, Elko, Nevada; Hon. Barbara Cubin (chairman of the Subcommittee) presiding.

Mrs. CUBIN. I am not used to holding this. I could get carried away here. So if we break out in song, you will know why, and we have the right setting for it as well.

I would like to call the Subcommittee on Minerals and Energy hearing to order. I want to thank all of you for being here today and it is an honor for me to be here.

We are a Subcommittee of the Committee on Resources, from the Congress, and thank you for your hospitality and thank all of you for attending. Let me begin today's hearing by thanking Congressman Jim Gibbons. He is a valued member of this Subcommittee and we are happy to have him as our host here today in Elko, Nevada, in the heart of gold mining country. My brother is a gold miner down at Misquite mine, so I sort of have a sensitive spot for gold mining.

Although I came from a small town, Casper, Wyoming, it is seldom that we can take time out from our busy schedule in Congress to be able to hold these field hearings, especially in remote areas like Elko, but it is an honor for us to do that and, of course, this is where the folks that are most affected by the government decisions regarding the use of the public lands live, so it is good for us to be able to come back and hear from the very people that are affected by the decisions that we make, just how those decisions turn out in real life when you have to practice what we bring forward.

Unfortunately, as is the case with many field hearings, we do have a schedule to meet, and we have a 1:55 flight, so we have to adjourn promptly at 1 o'clock. I think we will have time, but I would like to ask everyone to keep their comments to the 5-minute period. We have lights here, and if you could do that, that would be greatly appreciated.

STATEMENT OF HON. BARBARA CUBIN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WYOMING

Mrs. CUBIN. This Subcommittee has held two field hearings in Congress already on the subject that we will be talking about today, and concerning the Secretary of Interior's decision to pub-

lish, on February 28 of this year, a final rulemaking bonding of hardrock mining operations on public lands, administered by the Bureau of Land Management. After having to resort to a subpoena, issued by Chairman Young of the full Resources Committee, we finally have all of the documents that we requested in our inquiry from the Secretary, and what we want to know, as of course do you, why the Secretary has allowed this rulemaking to become final after such a long lapse without new public input.

He did this despite requests from me, from Congressman Gibbons, from your Governor and the senior Senator for your State and others to re-propose the rule for new comments. A lawsuit filed by the Northwest Mining Association against the Secretary, alleging abuse of discretion and failure to follow proper rulemaking procedures is in progress in the U.S. District Court, where a ruling on cross-motions for summary judgment is possible by the end of this month. But whatever the outcome of the lawsuit, I believe the Secretary's actions are a strong indicator that we in Congress, as well as in the regulated industry and indeed the public at large, must remain vigilant and insist upon strict adherence to the Administrative Procedures Act and the Regulatory Flexibility Act as well, which mandates analysis of impacts of rulemaking upon small businesses.

I view the role of Congress to protect the system, while I don't always agree with the decisions that are made by those decisionmakers in the executive branch, and, therefore, I can't always—or really can't intervene on those decisions once they have followed the correct procedure. But my job, and I think the job of the Congress, and this oversight hearing, is to make sure that we protect the procedure, that we protect the policy because if we don't do that, there are several things that can be guaranteed.

No. 1, when the procedure is violated, even if you are on the winning side this time, the procedure will be violated again and you may be on the losing side the next time. Another thing that can be guaranteed, especially in areas where the environment is being debated, that degradation of the environment will occur at some point when the process is abused and violation of private property rights will occur. Therefore, it is my sworn duty to protect the policy and make sure that the agencies abide by those two laws.

Another thing happening in Congress, this time in the Senate, which also bodes poorly for full participation by the States in the full 3809 regulations rewrite, which Secretary Babbitt announced last winter, last week the appropriations bill for fiscal year 1998 for the Interior Department was debated. In the version from the Committee was language to require the establishment of a committee of Western Governors' representatives to report to Congress on the proper roles of States in mining, permitting and reclamation matters.

The report would ensure the Governors a place at the 3809 table, so to speak, but incredibly, the administration threatened to veto if such a provision were to remain. It is astounding to me that the agency should think that the Governors of the States affected should not have a place at the table. The senior Senator from Arkansas led the charge and there was no choice for Western Senators, they said, except to bargain away that requirement in return

for not allowing the BLM to publish the proposed 3809 rule until after December 31, 1998, and the truth is, the House of Representatives, in which Mr. Gibbons and I serve, would very likely have balked at a conference committee report, which included the Governor's report requirement as another attempt by the quote, "subsidized public land miners to stall off necessary reform," but not because we haven't tried to set our colleagues from the East straight or from the East on this and other Western issues, but because the folks who want to see the industry leave the U.S. altogether are winning the public relations wars, so the mail to the Eastern representatives and Midwestern Members of Congress is routinely against efforts to restore the multiple use concepts and multiple use for public lands.

A trip in August, in which the Speaker of the House, the Majority Leader, the Majority Whip, all total about 14 Members of Congress, came back and were educated on Western issues, and the folks from the East and from the industrial Midwest were amazed at what they saw when they compared what they actually saw to what they thought was happening out here on the public lands.

As you in the mining industry well know, increasingly, it is a Superfund or the Clean Water or the Clean Air Act tail wagging the 1872 mining law dog. In other words, so what if irresponsible efforts to reform the 1872 mining law is staved off for another Congress, if air, water or other environmental thresholds are adopted in statute or regulation, which effectively deny permit issuance.

Unfortunately, the Federal laws which the EPA administers and delegates to the States, which demonstrate willingness and ability to implement them, by the way, are not generally within the jurisdiction of the Committee on Resources. A notable exception is the Endangered Species Act. Nevertheless, the genesis of the 3809 regulations is clearly the Federal land policy management—excuse me—FLPMA, I just will quit stuttering. We all know what FLPMA is, but FLPMA does reside in the jurisdiction of our Committee and therefore we can have this hearing.

The Secretary of the Interior does, indeed, have a mandate to prevent unnecessary and undue degradation of public lands. We all agree with that. I don't believe there is a single person in this audience who would deliberately degrade the environment. The 104th Congress voted to establish a 5 percent net proceeds royalty, require payment of fair market value for the services stated within a claim to be patented and establish a trust fund for reclamation of land abandoned by miners, prior to the modern reclamation requirements.

This was called sham reform by the administration, and others. Apparently the sham reform was not enough of a good faith showing by the Congress to warrant further dialog. Instead, in a move that a Washington Post reporter even labeled as stealth mining law reform, Secretary Babbitt has shifted the debate to a forum in which he has the most broad control, but I do pledge to use this chairmanship to see to it that meaningful public input is brought out, that it is received properly and dealt with properly, before the 3809 mining rules or the Forest Service parallel rules at 36 CFR 228 R, revised. So I do thank you for your attendance today and

I am going to call on your representative, Jim Gibbons, for an opening statement.

STATEMENT OF HON. JIM GIBBONS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEVADA

Mr. GIBBONS. Thank you very much, and on behalf of all of Nevada, I want to welcome Representative Cubin to Elko, Nevada. As Chairman of the Energy and Mineral Resource Committee, this is an important opportunity for all of Nevada to have a chance to understand just exactly what it is that Congress can do, and should do when it comes to protecting this industry, so I would like to welcome you to Elko, Nevada, and I would like to express my sincere gratitude to you for holding this hearing on the precious—in fact, in the precious metal capital of the world, here in Elko, the silver State, and I applaud your efforts to preserve and protect a vital interest to Nevada and to this country. And I know you, as a chemist, and I as a former geologist, have a deep appreciation and understanding of all of our Nation's mining and mineral industries and it is the reason why we feel this is such an important part of our job as representatives in Congress.

By way of introduction, let me say that Nevada, the Nation's leader in gold production, has 30 operating gold-producing companies here and they employ more than 14,000 people. These people mined an estimated $2.9 billion worth of metals in 1995 in Nevada alone. Nevada alone provides an annual direct contribution to the Federal Government of more than $113 million.

As the second largest employer in the State, mining provides $1.5 billion in personal, business, State, and local government revenues. That is $1.5 billion. Now, these numbers make it easy to realize why mining is such an important part of Nevada and why any change in the laws or regulations governing mining or mining operations must be closely monitored to ensure that the mineral industry is not crippled or endangered by personal agendas of special interest groups or individuals whose only goal is to eliminate all mining activity on public land.

In a memo from Secretary of the Interior, Bruce Babbitt, to the Assistant Secretary of Lands and Minerals, dated January 6, 1997, Mr. Babbitt stated clearly, quote, "It is plainly no longer in the public interest to wait for Congress to enact legislation that corrects the remaining shortcomings of the 3809 regulations. To that end, I direct you to restart this role-making process by preparing and publishing proposed regulations," end quote.

Well, to Mr. Babbitt, I would say that Article I, Section 1 of the Constitution states that all legislative powers herein granted shall be vested in a Congress. Democracy and our Constitution require that the people be bound only by those policies enacted by our elected lawmakers, not appointed bureaucrats. Since the New Deal, however, Congress has routinely lost the power to make laws and it has lost that power to unelected and unaccountable bureaucrats. This must stop and the legislative powers must be returned back to Congress allowing decisionmakers to be held accountable to their constituency.

If we want to find recent administrative actions doing great harm to our political process and to the people of Nevada, we do

not have to look very far. Clearly, evidence of this loss of power and administrative lawmaking were recently felt by this great State when the Secretary published new rules on BLM hardrock bonding requirements.

I submit to this Committee that the public was not allowed to voice their opposition or their concerns about the substance of the final version of the rule. Five-and-one-half years before the administration's final enactment of the rule, the intention of the Department of Interior was to create legislative policy. I believe their actions violated the Administrative Procedures Act and were a disservice to the people of America.

Does anyone in the Department of Interior remember the preamble to our Constitution which states, "of the people, by the people and for the people." The purpose of this hearing, of course, will be to explore the Department of Interior's effort to revise the hardrock mining surface management regulations, 43 CFR 3809, or simply put, the 3809 regulations.

It is my intention today with your support to hear from the people of Nevada, the citizens of this country, the industry, the State and then the Federal Government on why we need to change 3809 regulations. And if indeed we do, then how best to go about changing and implementing the new regulations. It is my intention as a Member of Congress not to be caught off guard when the Department of Interior makes their changes.

I encourage public comments on this regulation so that I can use every power available to me to ensure that the adage, quote, "for the people," end quote, is held true in its spirit.

Madam Chairman, I look forward to this hearing today and I would like to thank you and everyone for taking time out of their busy schedules to participate in our government process. Thank you and I would yield back any balance of time that I have.

Mrs. CUBIN. Thank you, Mr. Gibbons. Now that the light is on, I could even read his statement. I have just reached the age when I have learned that I can't see very close anymore so forgive me for my bit of stuttered speech.

Now we will begin with the testimony on the first panel and first I will call on Ron Espell—oh, excuse me, no. We are honored today to have a representative from Senator Reid's office with us for a brief statement, and so I will ask Karen Denio if she will please give the Senator's testimony for us.

STATEMENT OF HON. HARRY REID, A SENATOR IN THE CONGRESS FROM THE STATE OF NEVADA

Ms. DENIO. Thank you very much. My name is Karen Denio. I am rural coordinator for U.S. Senator Harry Reid, senior Senator from the State of Nevada. Senator Reid has asked that I read his statement into the record and his personal statement is as follows:

Last Thursday, with the assistance of other Western Senators, I fought off a major challenge to Nevada miners as the interior appropriations bill came to the floor by fending off attempts by perennial foe Dale Bumpers to attach legislative riders to the bill calling for a net royalty and severance tax on mining operations.

Additionally, we successfully negotiated a 1-year moratorium on any new 3809 regulations. My amendment will require the Sec-

retary of the Interior to wait until at least November 15, 1998, to publish proposed regulations on the 3809 hardrock mining regulations. After that, we can use the Reid-Nickles Regulatory Reform Act to stop anything particularly offensive or dangerous for Nevada miners.

This past February, Secretary Babbitt stated in an interview on National Public Radio that he was going to rewrite the current mining laws. His most recent attempt at revising 3809 regulations is another back-door approach to mining law reform. This effort illustrates the Secretary's frustration with not getting mining law reform done his way.

The administration just does not understand the process that Congress has undertaken to reform the 1872 mining law. Reasonable mining law reform must come through cooperation with Congress and Western States, not through covert actions by Federal bureaucrats. I fear a negative impact on mining operations on public lands. The Secretary's prescription for mining law reform is a one-size-fits-all approach. He wants to direct uniform Federal standards for a goal placer operation in Alaska, surface copper mines in Arizona and underground gold mines in Nevada. As any miner knows, this will not work.

In many ways this proposal is a direct attack on the economy of Western States, since the vast majority of Federal lands are located in the West. As you know, Nevada has 87 percent of its land under Federal control.

According to the Interior Department, the mining law revision process has been on hold since 1993 because Congress has failed to act on the matter. I resent the implication that Congress has not considered mining law reform. Maybe it was not to the liking of those who would like to destroy the industry. I have written several bills since I have been in the Senate, including a 1994 measure that passed both the House and Senate. Additionally, the 104th Congress passed legislation amending the mining law, however, it was vetoed as part of a larger action.

When mining law reform takes place, Congress should do it with the cooperation of the Western State governments. The issue of mining reform has been one of the most hotly debated subjects in Congress for the past 7 years. Congress has considered many controversial amendments, and after debate, close votes have occurred. The Secretary continues to push his agenda on this Congress and I am proud of the role I played in ensuring that no amendments, bills, or bureaucratic shenanigans that would have been disastrous to hardrock mining succeeded.

What is of most concern to me is the Secretary's efforts to bypass the Congress on this most important matter. In the past, the Secretary has called for collaborative resource management, yet he leaves the Western Governors out of the process. It is the Western State economies that are most affected by the Department's actions. The Department of the Interior wants to create new and onerous regulatory requirements that may conflict with rules already in place in States where mining occurs.

Since the BLM first wrote the 3809 regulations back in 1980, States have made vast improvements to their laws governing mining, reclamation, and environmental remediation on Federal land.

Nevada's laws serve as a model for the rest of the world. I fail to understand why we need another set of burdensome regulations from the Federal Government when our State laws already protect our resources and promote our economy. Thank you.

Mrs. CUBIN. Thank you, Karen, and will you please send our regards and our thanks to the Senator for his testimony?

Ms. DENIO. I will.

Mrs. CUBIN. Now we are back on track. So the first witness we will call on today is Ron Espell, Environmental Superintendent for Barrick Goldstrike Mines, Inc.

Mr. ESPELL. Thank you very much, Madam Chair.

Mrs. CUBIN. I would like to call your attention to the traffic signal down here.

Mr. ESPELL. I will have to do this without a mike.

Mrs. CUBIN. We will get you a mike. Is that working?

We will start your 5 minutes over. You will know when your time is up because the red light will be flashing in your eyes.

STATEMENT OF RON A. ESPELL, ENVIRONMENTAL SUPERINTENDENT, BARRICK GOLDSTRIKE MINES, INC.

Mr. ESPELL. Thank you very much for the opportunity to appear at this hearing of the House Subcommittee on Energy and Mineral Resources today to discuss the regulatory framework that governs hardrock mining on Federal lands. My name is Ron Espell. I am currently the Environmental Superintendent for Barrick Goldstrike Mines, which is the owner and operator of the Goldstrike Mine on the Carlin Trend in Eureka County, Nevada. I have worked at Goldstrike since 1994.

My responsibilities include assuring that Goldstrike has the proper environmental permits, including approvals from the Federal Bureau of Land Management and the State of Nevada. Before coming to Goldstrike, I worked for other mining companies, consultants to the mining industry and Nevada's Bureau of Mining Regulation and Reclamation, so I have many years of experience with mine regulation and permitting.

Mining activities on Federal lands at the Goldstrike Mine are regulated by BLM, through a plan of operations that was initially approved in 1987. Mining on public and private lands is subject to a mining permit from the State of Nevada that was initially issued in 1991, after Nevada adopted new mining regulations in 1989. Our BLM plan of operations has been amended several times and our Nevada mining permit will be renewed this year.

At Goldstrike, we have a significant amount of experience with the existing process for permitting mining operations. I want to focus my testimony on several key points about the current regulations and explain why, from my perspective, changes are not necessary.

One, cooperation between Federal and State regulators is essential. An essential element of any effective system for mine regulation is cooperation and respect between BLM and State mining regulators. Because a mine that operates on public lands must be permitted by both agencies, the possibility exists for conflicting or inconsistent requirements. We have been fortunate that both the State of Nevada and the local BLM district recognize the impor-

tance of cooperation. It has been our experience that the Nevada State agencies work closely with BLM and the mine operator, to assure that requirements are consistent and to avoid duplicative requirements, including inspections.

BLM's existing 3809 regulations encourage Federal/State cooperation through cooperative agreements and by provisions which explicitly incorporate State reclamation and environmental standards into BLM's process for reviewing and approving plans of operations. Most importantly, by requiring compliance with State standards, the present 3809 regulations provide an evolving standard which automatically incorporates changes in State laws and regulations.

Two, BLM should not develop independent performance standards. The second point that I would like to make is related to my first concern about Federal/State cooperation in permitting. BLM should not develop separate environmental or reclamation performance standards. As I understand it, Secretary Babbitt has asked the BLM task force that is looking at 3809 regulations to consider whether BLM should develop additional environmental or reclamation performance standards.

We believe that BLM should not develop additional performance standards for two reasons. First, reclamation standards must be tailored to the site where mining occurs and the type of mining that is proposed. Reclamation on the Carlin Trend will require different methods and different standards from reclamation in the Arizona desert or the Montana mountains. Reclamation at an open pit copper mine is different from reclamation at an underground gold mine. A one-size-fits-all standard imposed from BLM in Washington simply cannot accommodate the many different environments where mining will occur. Instead, BLM should look to the reclamation standards developed by State and local governments who are much more familiar with local conditions and land uses.

Second, separate performance standards developed by BLM will likely lead to inconsistent requirements. Every mining operation is subject to a long list of permitting requirements to prevent pollution of air and water and protect the environment. For example, water quality standards are developed by States under the authority of the Federal Clean Water Act and implemented through permits. There is no reason for BLM to second guess existing water quality standards or permits. This is particularly important in the area of ground water, where Congress firmly stated its intent to leave groundwater protection to the States. Rather than create new requirements, BLM should simply incorporate State water quality standards or permit requirements into its approval of a plan of operations. Similarly, every Western State has a modern mining reclamation law.

BLM should not attempt to duplicate those requirements. I do not believe that the Interior Department can demonstrate that any changes are needed to BLM's current 3809 regulations. I hope that these oversight hearings will add to the record and encourage the Department to avoid major changes. Thank you very much for the opportunity to give this testimony.

Mrs. CUBIN. Thank you very much. Our next witness will be Bill Upton of Placer Dome U.S. Inc.

STATEMENT OF BILL W. UPTON, MANAGER, ENVIRONMENTAL AFFAIRS, PLACER DOME U.S., INC.

Mr. UPTON. Madam Chair, Congressman Gibbons, my name is Bill Upton. I am the Manager of Environmental Affairs for Placer Dome U.S. Incorporated. In this capacity I have direct and oversight permitting responsibilities for PDUS. Placer Dome U.S. Inc. operates three large gold mines in the United States, two in Nevada and one in Montana, and conducts extensive mineral exploration throughout the West, including Alaska.

Our United States operations employ a total of 955 people. We employ people in Nevada, Montana, Alaska and Kentucky. Placer Dome U.S. has a long history of permitting and operating on public land in Nevada and Montana. Our most recent permitting experience is the expansion of our existing mining operations. In Nevada, Cortez Gold Mines began operations in 1969 and is located primarily on public land administered by the BLM and Bald Mountain Mine began operations in 1981 and is primarily located on private land but also operates on some BLM administered land.

All of our operations are permitted under the requirements of 43 CFR 3809 and have undergone extensive environmental reviews pursuant to the National Environmental Policy Act. Permitting under 3809 and NEPA has been ongoing at Cortez Gold Mines since 1990. The BLM completed their first Environmental Impact Statement for Cortez in 1993. Subsequent discoveries led to the permitting of our Crescent Pit and preparation of another EIS for our pipeline pit and number 2 mill expansion. The BLM is currently completing an Environmental Impact Statement for the most recent Cortez Plan of Operations.

The BLM completed an EIS for the expansion of Bald Mountain Mine in 1995 and most recently permitted Bald Mountain's LJ Ridge expansion. At Golden Sunlight in Montana initial mine development was permitted in 1981 under the Montana Mining and Mineral Policy Act. In 1995 the mine submitted an application to expand operations and the Montana Department of Environmental Quality, as the lead agency, and the BLM as cooperating agency are completing an EIS for the expansion. The remainder of my testimony will center on the BLM's review of possible changes to 3809 regulations. PDUS had the opportunity to tour several members of the BLM task force conducting this review at our pipeline project in April and at Golden Sunlight in early September. The task force saw firsthand how many of the issues they are concerned with in 3809 are being managed effectively under the current regulations in strong State and Federal regulatory programs in these States.

At Cortez, they saw the notice level exploration drilling operations and the controls incorporated in these operations to prevent unnecessary and undue degradation. They walked over areas where similar activities had been conducted the season before and which had already been reclaimed and which were nearly indistinguishable from the adjacent undistributed land. They saw the comparatively low density and intensity of disturbance typical of this activity. We explained to them how important Notice Level exploration is to our long-term planning and survival, how it provides the opportunity to gain timely access to prospective areas to further assess their mineral potential before investing the enormous

amount of time and money required to permit plan level disturbance.

At Golden Sunlight, the task force observed the importance of incorporating site-specific conditions into the reclamation plan and how this had been accomplished through the existing State and Federal permitting program in Montana. They also saw the distinct differences in site conditions between Golden Sunlight and Cortez. Unlike many other industries, mining can only occur where the resource is located.

The contrast in site conditions between Golden Sunlight and Cortez and the resulting differences in their reclamation plans are a good example of why one-size-fits-all performance standards would be inappropriate for hardrock mining given the wide variety of site conditions within which it can occur.

Pit backfilling, including the enormous expense in dollars and resources to accomplish it, the potential adverse environmental impacts associated with it, and the loss in potential mineable resources it would result in were discussed at both operations with the task force. The task force learned first hand how this issue was included in the alternative analysis during the permitting of both operations and therefore is already receiving detailed evaluation as part of an existing State and Federal permitting requirements.

Most importantly the task force saw how permitting and regulation of hardrock mining is being effectively coordinated with State government both in Nevada and Montana. They saw how the permitting role of these States on issues concerning air quality and water quality and quantity is being coordinated with BLM and effectively carried out in a manner protective of public lands.

In summary, PDUS believes the regulations are working to protect public lands. The current 3809 complemented by strong State regulatory programs have provided for and will continue to provide for the adequate protection of public lands. We have not seen any evidence to show additional regulations is warranted. The examples I've provided from our operations in Nevada and Montana are testimony to the fact that current regulations are comprehensive and when properly implemented in coordination with State programs adequately protect the public, as well as private lands. Thank you and I will do my best to answer any questions.

[The statement of Mr. Upton may be found at end of hearing.]

Mrs. CUBIN. Thank you very much. Can you folks in the back hear the testimony? Hold it, if you will, please, Mr. Jones, hold the microphone closer to your mouth.

Mr. JONES. How is that? Is that better? OK. That is better.

Mrs. CUBIN. Thank you. Do you want to use the stand there, or hold it, it doesn't matter, whatever you are most comfortable with.

Mr. JONES. I will hold it, that is fine.

Mrs. CUBIN. Our next witness is Martin Jones, Senior Manager of Nevada Environmental Compliance with Newmont Gold Company.

STATEMENT OF MARTIN R. JONES, SENIOR MANAGER, NV ENVIRONMENTAL COMPLIANCE, NEWMONT GOLD CO.

Mr. JONES. Good morning, Madam Chair, Congressman Gibbons, my name is Martin Jones, Senior Manager of Nevada Environ-

mental Compliance for Newmont Gold Company. I am responsible for overseeing compliance for Newmont's Nevada operations with all Federal, State and local environmental laws, including laws relating to exploration, operation and closure. Newmont is the largest gold producer in North America.

Since 1965, Newmont has engaged in mining and processing on the Carlin Trend in north central Nevada. Today, Newmont Gold's domestic operations remain centered in northern Nevada. In the last 15 years, the U.S. gold mining industry has emerged as an internationally competitive industry and has accomplished this without the need for government loans, subsidies, bailouts or tax breaks. In fact, gold mining companies in most cases themselves have paid for the community and other infrastructure needs necessary to support their operations during a time when environmental regulations have been ever increasing, and it has done this while paying its employees wages that are higher than any other segment of American workers.

Over two-thirds of our nation's gold production takes place in Nevada. Gold mining generates over 51,000 jobs in Nevada, and precious metal producers paid over $141 million in Nevada State and local taxes in 1995. Newmont and other mining companies work hard to ensure that their operations on public and private lands are conducted in an environmentally responsible manner and in accord with all applicable State and Federal regulatory programs. These programs are numerous and are scrutinized by many agencies, including the Nevada Divisions of Environmental Protection, Water Resources, and Wildlife, the U.S. EPA, Fish and Wildlife Service, Army Corps of Engineers and the Bureau of Land Management.

We recognize and accept our obligation to properly close and reclaim mining sites after their useful life. In the late 1980's, Newmont worked closely with the Nevada Mining Association, Nevada Division of Environmental Protection and the Sierra Club to develop a State reclamation program that would ensure reclamation of public and private lands.

Today, we will focus on the BLM regulations applicable to hardrock mining on public lands, known as the 3809 regulations, the basic substance of which has been in place since 1980 and has proven more than adequate to protect public lands. Despite the rhetoric of mining industry critics, we have not seen evidence indicating that these regulations have led to significant problems or that regulatory changes are necessary. This is especially true for States like Nevada, that have comprehensive environmental mining and reclamation and regulatory programs.

In 1992, BLM conducted a comprehensive review of the 3809 regulations and concluded that the centerpiece of the program, a rule that prohibits unnecessary or undue degradation of public lands, was fully adequate. As the Committee is no doubt aware, Secretary of the Interior Babbitt last spring appointed a task force to review the 3809 regulations and proposed revisions, including revisions that would impose prescriptive and inflexible nationwide standards.

In connection with the task force efforts, Newmont submitted extensive comments. I ask that these comments be made a part of the

record for this proceeding and will very briefly summarize them for you. Under the existing 3809 program, persons wishing to engage in mining on public land must submit a plan of operation for approval by BLM. Before approving the plan, BLM undertakes a comprehensive assessment of all potential environmental impacts and if any are found, the plan of operation is modified as appropriate.

In addition, operations in Nevada must comply with standards imposed by the State: Mining, reclamation and wildlife protection regulatory programs. These programs ensure that the design and operation of each facility is appropriate for the physical, geological and hydro geological condition at each site. Tailoring operation and reclamation plans to site-specific conditions is essential.

Hardrock mining involves many different minerals in mining and processing techniques and occur in a widely varying environmental setting. Unlike other industries, operators of mines cannot locate their mining sites in settings where compliance with national design standards might be feasible. Mining can only take place where the minerals are located. For these reasons, a host of authorities, including the National Academy of Science, EPA, the Western Governors Association, have recognized that site-specific flexibility is an absolute necessity for regulations affecting hardrock mining.

In conclusion, Newmont believes the 3809 program has worked well to protect public health and the environment and public lands, a conclusion shared by the Western Governors Association. Despite their assertions to the contrary, environmental groups have failed to identify any but a small number of isolated instances where modern mining operations on public lands subject to modern environmental programs have led to significant environmental problems that could have been avoided by more prescriptive national standards.

Instead, critics of industry focus on environmental problems existing at historic sites, while mining occurred long before the advent of 3809 regulations. In Newmont's view, the current regulatory scheme should not be altered unless BLM can show that significant real world problems exist that cannot be addressed under the existing program. Certainly no such showing has been or in our view could be made with respect to public lands located in Nevada. Thank you.

[The statement of Mr. Jones may be found at end of hearing.]

Mrs. CUBIN. Thank you, Mr. Jones, and now if you don't mind, we would like to just ask each one of you a few questions and we will start with Representative Gibbons.

Mr. GIBBONS. Thank you, Madam Chair. First, let me ask for all of you, maybe, a brief comment on industry standards in terms of reclamation, environmental practices, et cetera. Do you feel that the industry standards today with regard to those issues, whether it is environmental protection, reclamation, habitat protection, have been met and are constantly being reviewed within the industry itself to step forward at the proper time to advance both the industry and the environment within your operations?

Mr. UPTON. Yes, I believe they do. I know through our trade associations, the Nevada Mining Association in particular, we share a great deal in terms of our own individual standards within companies and between companies, and share that work that we are

doing collectively, and I think, yes, the standard, the industry standard, is at a level that challenges or at least represents well the regulatory standards.

Mr. ESPELL. Just to respond to that a little bit differently, I am also, aside from my duties at Barrick, I am the Reclamation Subcommittee Chairman for the Nevada Mining Association. We have both, through the NMA and through the individual companies, under the current regulatory framework, there is enough flexibility that we have a very cooperative agreement and a working relationship between the Federal regulators that the BLM—and the State agencies, where we work together to identify reclamation needs and objectives, and in a very cooperative spirit come up with advancing techniques to be able to meet those needs and under the current system, those sorts of things are possible and are being done.

Mr. JONES. To give you the short answer, yes. Newmont endorses the Nevada standard. We apply that standard worldwide. It doesn't matter if we are in Peru or Uzbekistan or Indonesia. We find the Nevada standard for our industry provides a balance between economic factors and protection of the environment.

With respect to 3809, the definition of undue and unnecessary degradation allows for changes without having to rewrite it, I think this is the keystone of 3809, and so allows for an evolution of techniques and technical problems, resolution of technical problems. As we get better at reclamation and get better at operating, then those standards become commonplace in the industry and the 3809 is then updated by applying the unnecessary and undue degradation rule.

Mr. GIBBONS. Thank you. Now, if the industry itself has certain standards that are met, and perhaps, as you have indicated, they are uniform throughout most companies that operate mining operations here in Nevada to meet those permit requirements. Let me ask you just a two-part question. One, if they do have, and they do meet, and this is not something like re-inventing the wheel, as we have done on these standards, why does it take so long for a mine to get permitted here in Nevada and how can we, as a State, and you as an industry, work with the BLM to actually expedite that process, because, after all, we also want to hear solutions, not just complaints. We want to hope that through this process, you can help us communicate with the bureaucracy in its reevaluation of 3809 to make better, but better for everybody, not just for one group or one special interest. So my question would be, if you didn't understand it, I would repeat it, but I hope you understood it.

Mr. JONES. I think I do. I would like to think that we hold ourselves to a higher standard than other mining companies, but I am sure I would get disagreement here. Permitting takes long, and that is probably some of our frustration with the process. It does take long lead times to permit. We found at Newmont that working with the BLM district to let them know our upcoming schedules, what we have on the agenda, so that they can clear their schedules to work on the documents, and then we hold meetings when we finish, to discuss what went right, what went wrong, where can we streamline the process to make it more efficient.

I don't think, including the BLM review of notice level activities, that is now being required, has helped because we have now taken people who are overworked and don't have enough resources, and we have burdened them with more work. I think that we should consider giving BLM more resources to help us with the permitting process.

Mr. ESPELL. To add to that a little bit differently, some of the things we have seen that add to the overall timing of the permitting process is any time there is a duplication in the Federal permitting process, duplication of things which are already permitted and evaluated under the current State programs, we have been working very closely with the Nevada State office of the BLM to identify the sources of duplication and develop MOUs between the State and the BLM in order to be able to try to avoid those duplications. The changes that are proposed in the 3809 regulations actually go countercurrent to that philosophy and incite more duplication as opposed to trying to encourage a lack of duplication of the programs.

Mr. UPTON. Well, yes, sir, our permitting process has been lengthy, and for many reasons, understandably so. I think our biggest concern is the 3809 rules being contemplated would only increase that. The bonding regulations that were adopted have again added to staff time at the agencies to where they are now required to spend much more time reviewing notice level activities and the bonding requirements now in place for those and so it is just a plethora of additional review and requirements and time on the part of the staff that in turn builds time for us on the other hand, too, to get them the information they need, so it is both, yes, we have had lengthy processes, but we see what is being talked about as only aggravating that and exasperating an already overload situation with agencies.

Mrs. CUBIN. Thank you very much. I just have a couple questions. Mr. Upton, I will start with you. You mentioned in your testimony that one size-fits-all site requirements won't work for hardrock mining. And there will be testimony later on today from people who think that the Federal Government shouldn't own any lands, but since they do right now, what I want to ask you is what should the Federal role actually be?

I think that most of the people that I know, that I work with, think that the States can do, will do, and do a good job of protecting the environment. In Wyoming I know environmental standards are higher, many times, than Federal standards, and their own State legislature has imposed that level. So what should the Federal role be, and what should the State role be and what should the role of the industry be?

Mr. UPTON. Well, we support a strong oversight role by the Federal agencies, but we think that the site-specific conditions that occur within a State, and the complexity to those clearly lie with the State agencies, and even the local government agencies to have a strong role in determining the permit requirements and the compliance requirements for those operations, and that, yes, the Federal Government has a role in providing oversight and consistency between States, but on the same hand, it is important to have those site-specific conditions recognized in the permitting process

and compliance aspects of an operation, so that we are dealing with the proper aspects out there in that sense.

Mrs. CUBIN. So you said, and I don't want to be putting words in your mouth, I want your opinion. You said that they should coordinate and see that there is consistency among the States, and did you say set standards?

Mr. UPTON. No, I said the States should be in the standard setting role.

Mrs. CUBIN. In a couple words again, what should the Federal role be?

Mr. UPTON. Oversight in the context of looking at the standards between States, and applying and assuring some reasonable level of consistency between States.

Mrs. CUBIN. So is it your opinion, and maybe you don't know, because I don't, I have to vote on all the States issues, but is it your opinion that the State standards are adequate to protect the environment in land, water and air?

Mr. UPTON. In the States we operate in, yes.

Mrs. CUBIN. OK. Thank you very much.

Mr. Espell, you mentioned in your testimony that you have had pretty decent experiences in dealing with public land managers who you work with and so a lot of times I think when I am saying things that are critical of the Federal agencies, I don't make it clear that generally I am speaking of the Washington bureaucracy and how their decisions negatively impact people on the land.

My experience has been uniformly, when I am dealing with local land managers, that generally they do a good job, they care about the land, they are our neighbors and they are our friends and family, and I think you referred to that somewhat. I mentioned also in my opening statement the leadership trip to the West and how the things we had learned there, there were three things that we wanted, three messages we wanted them to go home with. That was the States can, will, and do a good job of regulating and enforcing environmental statutes; that resources can be developed on the public lands as well as the private, of course, and still allow us to be good stewards of the land and that multiple use is good land management policy.

Could you just go into a little bit more for me, what sort of problems you have had with—maybe just give a couple examples, of Federal dictates that aren't good for the economy, good for the resource, good for anything, where there may have been a little bit of disagreement at the local level.

Mr. ESPELL. Sure. I think Nevada is probably the best example, although my experience has been completely in Nevada. From what I have seen of other programs, Nevada has an excellent working relationship between the State agencies and the BLM, and other Federal agencies, which, you know, reside here, the State offices of those agencies. That working relationship and that cooperation actually extends all the way to the initial development of the State programs, which were based on consistency between the State programs and the Federal programs.

In Nevada, for example, a reclamation permit application for the State and the BLM's plan of operations is the same application. It is a one-stop shopping kind of an idea. That cooperative agreement,

which reduces the permitting time and the burden on the companies, is effectively destroyed by changes in the Federal regulations, which then drive inconsistencies between the Federal programs and the State programs, so, therefore, what I see is where the model should be what we have developed here in Nevada, for a cooperative agreement between the Federal and State programs, where the differences in requirements are transparent to the operator, the program is developed in accordance between State and Federal programs. Anything that is done on the Federal level, seems to be trying to do just the opposite to separate and provide inconsistencies between the programs.

Mrs. CUBIN. Thank you. Mr. Jones, does your company go beyond what is required in the permits on reclamation and repairing maybe old damage? I think Mr. Upton's company has just recently gotten an award for that and I guess what I am trying to find out is do other companies do that as well, do they invest money, really beyond what is required of them, to try to be good neighbors or do they not?

Mr. JONES. Yes, ma'am. We also received an award in 1995, the Governors Award for reclamation excellence for riparian habitat upgrading. We worked with local ranchers and our TS ranch to improve the habitat. Last year, we were involved in a cooperative effort to reseed fire-burned, fire-damaged acres, and the benefit is to wildlife and to the ranchers, and to us as a landowner, in that it made the land more valuable. We in mining recognize that we have impacts on the Earth, and that is the nature of our business, and we accept responsibility for this. And in order to compensate for those impacts, it is necessary to do certain things, and we take that on and we do those things.

Mrs. CUBIN. Well, thank you. I gave a pitch for Barrick and I didn't know you had won an award. Congratulations, I am glad you have, but I guess I can't leave Placer out—excuse me, I can't leave out Barrick, right.

Mr. ESPELL. Yes, we have several different programs going on in the State. The one we are currently involved in is a restoration project at the Marys River, slightly east and north of Elko, in improving riparian habitat, actually reestablishing the cutthroat trout habitat in the upper regions of the area of the drainage, which actually, the head water is up in the Jarbidge mountains. Previously, there has been culverts and different things that have been put in the river that we are working with with the BLM and Trout Unlimited to actually engineer stream restoration.

Mrs. CUBIN. I didn't know there were cutthroat trout out there. I thought Wyoming was one of the last places, beautiful places on Earth that had cutthroat trout.

Well, Bill, since I goofed up on you twice, would you like to tell us about your award?

Mr. UPTON. The award that Placer received was for reclamation in our Alligator Ridge mine where we stepped out, and because of the long history of mineral exploration at that site by a number of different operators, and the need to bring up current reclamation in that area for a lot of the past exploration areas, that many of them were even pre-3809 areas.

Our Bald Mountain operation went ahead and reclaimed a number of areas that were not necessarily our responsibility, but brought them up to date and that was in essence the foundation for the award. They did an excellent job with reclamation with it, but primarily the stepping out and recognizing there was a need there. I think our best successes have been where we began working with local agencies, Federal and State, one on one, even outside the permitting process where we can collaborate on whether it is wildlife habitat enhancement or reclamation. That has been our real big success story, where it is not something that is written in the permit, it is something that, on the grounds, needs to be done. It is the right thing to do and that is where our real successes have been for our company, and I think the industry in Nevada.

Mrs. CUBIN. This might not be a fair question and if you don't have an opinion, that is fine. But since hardrock mines don't pay royalties yet, I understand, and that might be why you don't have an opinion on this, but the resource advisory councils that were established in land use and planning and so on, recommended, among other things, eco credits. Do you have an opinion on how eco credits would work in your own industry?

Mr. UPTON. Well, I think the best example we have would be in wetland litigation where we deal with no doubt loss issues and mitigation. I think there is an example of some sort for eco credits where we do, if we are going to effect wetlands and water in the U.S., we can mitigate those impacts by going out into adjacent areas and enhancing wetlands or creating new wetlands and we do get credit there, so I am sure there will be opportunities to work with a system like that. I am not real familiar with how it would be applied in hardrock industry, but I am sure the experiences we have had on working with offsite wild habitat work and so forth would work well in those situations.

Mrs. CUBIN. And the bottom line would be to improve the environment, so do you think that there is a potential for that, through the use of the eco credit system.

Mr. UPTON. There seems to be, yes. I think we are well versed at working with ecosystem management and looking at the whole picture, so I would think, yes, hardrock mining could work with something like that.

Mrs. CUBIN. And I have exceeded my questioning time but I would appreciate a brief response from the other two.

Mr. ESPELL. I guess to followup on what Bill said, the only current system that we work under that is similar to that is under the Corps of Engineers 404 permit for wetlands mitigation. I think most of the mining companies right now are already doing something like that, without any sort of benefit of some sort of eco-credits or something, that the companies on their own are performing that right now without a push.

Mr. JONES. First, let me correct a fact? We don't currently pay royalties to the U.S. Government, but we pay royalties. We pay royalties to private landowners, where we have operations and we pay a net proceeds tax to the State of Nevada.

Mrs. CUBIN. Thank you.

Mr. JONES. I know you are aware of that and I wanted to set the record straight.

I am not very well versed in coal and coal regulation and so on and I am not able to comment knowledgeably on ecosystem credits. I think there is room to talk about them and I think probably we are doing a lot of the things now, but I can't give you an intelligent answer whether I support that or not. Thank you.

Mrs. CUBIN. Thank you very much. I do appreciate your testimony, and the answers to the questions and now you should go back and make some more net proceeds for Nevada. I would like to call the next panel forward, Dr. Tom Myers, Gene Gustin and Edward Presley.

I will remind the witnesses that you are allowed 5 minutes for your testimony. The traffic light will be right there in front of you. You can't miss it, and I will try to hold my questioning to 5 minutes next time, too. We will begin the testimony with Dr. Tom Myers, Consultant to Great Basin Mine Watch.

STATEMENT OF TOM MYERS, CONSULTANT TO GREAT BASIN MINE WATCH

Mr. MYERS. Madam Chairman, Congressman Gibbons, on behalf of the Sierra Club and Great Basin Mine Watch, thank you for this opportunity to testify this morning. My expertise and research on this issue primarily concerns water quantity and the impacts of mining on groundwater hydrology and the surface expression of groundwater, primarily springs, streams, rivers, streams and riparian areas.

My invitation to speak specified this and asked me to address water resources and the regulations regarding water resources. For my research, I have used public information obtained from the Nevada State Engineers Office, the U.S. Geological Survey, Nevada Division of Environmental Protection and the Bureau of Land Management, as well as data published in environmental impact statements.

I will focus my oral discussion on the hydrologic impacts and needed mitigation. My written testimony includes many specific examples and specifies many changes in 3809 regulations that we believe would help. I have also attached copies of a couple of articles and abstracts I have recently published to my written testimony.

Pit dewater imposed four primary hydrologic impacts: First, groundwater levels lower in the vicinity of the mine, which impacts spring and surface water, by changing the flow gradient in the vicinity of the mine. For example, there has been a spring about 7 miles from the Lone Tree Mine, which went dry, presumably due to dewatering. Second, the open pit and drawdown cone around the pit are a deficit to be made up after mining and dewatering ceases.

The pit was originally all rock and pore spaces filled with water would have made up only about 1 percent of the pit and up to 20 percent of the pit that was in alluvium. After mining ceases, pit lakes will form with water that must come from somewhere. In this regard, the two most impactful mines on local groundwater deficits are the Twin Creeks Mine, northeast of Winnemucca and the Lone Tree Mine, between Battle Mountain and Winnemucca. Twin Creeks will create a 460,000-acre-foot pit lake, which will be the second largest man-made lake in Nevada, if we include Lake Mead.

The Lone Tree Mine deficit of almost 1.1 million acre feet sits just 2 miles from the Humboldt River. Third, quality of water in the pit lakes depends on the source of water refilling them. BLM predicts this water quality using complicated geochemistry models. However, the models depend on the quality of the hydrologic data, including predictions of the inflow to the pit.

I presented a paper 2 weeks ago at American Chemical Society which shows the very reasonable assumptions of the geology into the pit led to estimates of inflow at the pipeline deposit pit for the refill to vary from 8 to over 100 years. Fourth, pit lakes will evaporate water in perpetuity. This represents a permanent loss of water from the flow in local basins.

The pipeline pit at full development after the several piecemeal expansions are complete will evaporate well over 10 percent of the total recharge. Cumulative impacts of mining are rarely considered although NEPA requires such consideration. For example, the Humboldt River watershed contains 18 mines that are either currently or soon to go below the water table and require dewatering. Total deficits from these mines represent 62 percent of the water stored in the surface aquifer of the Humboldt River.

Total deficits in the Humboldt River Basin equal more than 25 years of the entire river flow at the city of Winnemucca. Fortunately, I do not own water rights or property I want to develop downstream on the Humboldt River. It cannot be overemphasized that these impacts are unprecedented in the history of mining anywhere in the world.

While mining companies return large profits from underregulated mining, society is allowing a massive uncontrolled experiment on the environment of northern Nevada. It is not too late to do anything about it, but we are reaching that point. The rest of this testimony includes discussion about what the BLM could currently be doing and needed changes in the regulatory framework. Many of the impacts discussed above could be avoided or mitigated by reclamation of the pits, including complete or partial backfilling or through adequate bonding to either remedy or compensate individuals adversely impacted in the future.

Section 3809 provides BLM's regulations to govern hardrock mining permitting. Currently, BLM is attempting to modify or reform these regulations. First, I emphasize that the BLM, under current regualtions, has the authority to adequately regulate and mitigate these impacts. They are reluctant to assert the authority so regulatory reform will help them in this process, as I will elaborate below or actually in my written testimony. BLM is required to prevent unnecessary and undue degradation.

Unfortunately, we focus on surface-to-surface, while ignoring the long distance impacts of drawdown and water contamination, impacts which may not occur until after mining ceases are even more difficult for the agency to consider. However, the impacts of drawdown caused by dewatering and pit refill clearly impact surface water and land.

For example, drawdown has already caused sink holes to form in Maggie Creek. It has caused springs to dry. When stream flow was substantially reduced, the riparian vegetation may dry, which is also a surface impact. This type of impact clearly reduces the abil-

ity of land, far from the site, to support multiple use, including grazing and recreation. I see I am out of time and I have a couple pages to go, but I am going to jump to the end to finish up then.

The Sierra Club and Great Basin Mine Watch strongly support needed changes in Section 3809 regulations. We also support enactment of the Rahall bill, which is H.R. 253, which I believe is currently in front of this Subcommittee. Many of our concerns will be remedied. Many of the suggested regulatory changes would be codified. It specifically refers to the protection of water resources. It establishes a fund to clean up degradation to surface and importantly water resources caused by previous mining.

The gold mining industry has expanded from a million ounces in 1980 to 13 million ounces today. This is a remarkable expansion and has led to rapid growth in rural Nevada and other States. It is a very important part of the economy of Nevada and should remain so. But future citizens of northern Nevada, ranchers, farmers, Native Americans and cities should not be paying the debts created by present day mining. We request baseline standards to protect the environment of northern Nevada and the Western United States. Thank you for this opportunity to testify.

[The statement of Mr. Myers may be found at end of hearing.]

Mrs. CUBIN. Thank you, Dr. Myers, and I regret that we don't have time for your entire testimony to be given verbally, but it will be in the record.

And the next witness we will call on now is Gene Gustin, Public Land Use Advisory Council to the Elko County Commission.

STATEMENT OF GENE GUSTIN, PUBLIC LAND USE ADVISORY COUNCIL TO THE ELKO COUNTY COMMISSION

Mr. GUSTIN. Well, Madam Chairman and Congressman Gibbons, welcome to Elko. I sincerely appreciate your willingness to conduct this oversight hearing on this most vital issue to this area. More importantly, that you are reaching out for constituent input is very encouraging, and I am also encouraged by your opening remarks on this subject. Having been involved in the mining industry in the Western United States for some 27 years, in several different capacities ranging from tramp miner, to superintendent of mining of two large operations, to mining claim holder, to owner of an independent contracting business serving mining. I have been afforded many different perspectives on the evolution of the regulatory regime and the political and populist perceptions of the value of mining in a modern day life to this country. But how these perceptions and attitudes interface with reality and legality is the subject at hand today.

I believe the current efforts to rewrite, through administrative fiat, mining rules and regulations that have taken over 130 years to evolve and be refined is at best the height of bureaucratic arrogance and at worst, a crude misdirected illegal power play that simply cannot be tolerated by Congress, the States, the courts or the people of this country.

Why are we bringing forth words here today to our duly elected representatives asking them to rein in the activities of a government employee to run wild? An appointee, within whose purported purview it is to write the regulations, implement the rules, review

and adjudicate the systems concerning basic individual rights which violate the separation of powers doctrine. This Western United States subject of this medieval realm who thought he owned the possessory title in mining, grazing, water or agriculture rights and the rights to make improvements on such is then dragged through a kangaroo gathering called the Court of Administrative Appeals where the legislative, executive and judicial branches have been rolled into one easy instrument of rule without recourse.

And what is the alleged mechanism justifying this complete bypass of our system of checks and balances and separation of powers, the purported proprietary interest of the Federal Government in 87 percent of the State of Nevada. Where did we go wrong? A series of Supreme Court decisions, most recently, the decision of Printz vs. United States, on June 27, 1997, where Justice Scalia instructed us, "The separation of two sovereign spheres is one of the Constitution's structural protections of liberty. Just as the separation and independence of the coordinated branches of the Federal Government serve to prevent the accumulation of excessive power and in one branch the healthy balance of power between States and Federal Government will reduce the risk of tyranny and abuse from either front."

They even commented in that decision on what a novel phenomenon this was, as they hadn't started seeing this type of overregulation until the 1970's. Finally, and I quote, we held in New York that Congress cannot compel the States to enact or enforce a Federal regulatory program. Today, we hold that Congress cannot circumvent that prohibition by constricting the States officers directly. The Federal Government may neither issue directives requiring the States to investigate particular problems nor command the States officers or those of their political subdivisions to administer and enforce a Federal regulatory program.

It matters not whether policymaking is involved and no case-by-case weighing of the burdens of benefits is necessary. Such commands are fundamentally incompatible with our constitutional system of dual sovereignty. Accordingly, the judgment of the Court of Appeals for the Ninth Circuit is reversed.

Now, I know the Honorable Members here today are familiar with and understand the intent of the court's instruction, so I ask you today, are Members of Congress ready to tackle this issue politically and legally or will the burden fall to the directly affected parties yet again? Mining is America's financial backbone. The mining laws are the last great vestige of acquiring proprietary interests by common law principle, mixing sweat with soil to earn equity. Mining has made America strong without subsidy.

I have witnessed 70 percent of the mining claims be regulated and taxed out of the business in the last several years. I have experienced a 40 percent reduction in my personal business this year because of an illegal bonding rule implementation. Mining has been under an escalating P.R. Assault for the past several years. We try to respond with reason and logic and compliance and what does it get us, more assault and more restrictions.

The current attempt to rewrite through 3809, through the administrator, I believe, is a misdirected effort and I think that the Congress ought to challenge, legally, in the Supreme Court, to as-

sure that its role in the legislative process is properly assured. And I see my time is out, but, again, I thank you for the opportunity to present my views on this. Thank you.

[The statement of Mr. Gustin may be found at end of hearing.]

Mrs. CUBIN. Thank you, Mr. Gustin. Our next witness will be Edward Presley, National Director of County Alliance to restore the economy and environment.

STATEMENT OF EDWARD L. PRESLEY, NATIONAL DIRECTOR, COUNTY ALLIANCE TO RESTORE THE ECONOMY & ENVIRONMENT (CAREE)

Mr. PRESLEY. Good morning, Madam Chair and members. I would like to also welcome you to Elko, and I thank you for the opportunity to give testimony here today before your Committee. I am just going to make reference, Madam Chair, to my written statement and request unanimous consent it be submitted for the record then.

Mrs. CUBIN. Without objection.

Mr. PRESLEY. I will give a little different view than what you have heard from the industry. Obviously, I am one of those working in research and working on legal defense teams and plaintiff teams, suing the Federal Government, being sued by the Federal Government. I am that one that brings that unorthodox position that the Federal Government does not own the land out here. And we have that position and that question before the Supreme Court of the United States now in a petition for writ of cert for the October term in a case called United States vs. Gardner.

What I want to provoke you into realizing here today is that we can talk all about what has gone on with Mr. Babbitt violating the Administrative Procedures Act. We see that the mining companies up here who have billions of dollars invested out here are held at bay and under extortive measures by the Federal agencies and the local managers, and, Madam Chair, I would respectfully take some issue with you on your statement that the local land managers for the Federal Government are doing a good job and it is the bureaucrats back in Washington. I somewhat find out there is a bit of a roll reversal that occurs there, simply because I was the plaintiff in a case called Barton v. Babbitt where we had to bring a civil rights lawsuit because of our activist measures that we took out here in the public lands issues that the United States Attorney's Office was the nest for the Federal agencies and the local people going in there trying to get criminal indictments on us to commit a chill factor on our activism out here, and we successfully brought that, which then shifted from a criminal investigation against us and then brought about the United States vs. Nye County lawsuit, that was nationally known out here.

Now, I don't want to brand all Federal agents out here and all Federal employees, but I do want to tell you that I would have not known about that had a Federal agent not supplied me with the minutes of the meetings that occurred inside the United States Attorneys Office when they were trying to indict us, and Mr. Gustin was one of these plaintiffs here, too. What we have and what I have given with the visual up here is that you see a map of Nevada. Now Federal agencies will color the Western United States

in various different colors out here to commit an optical illusion out here, but that is the truth, that 87 percent of black up there puts us under a quasi type of military occupation out here, and I will tell you why it makes such a bold statement.

As long as the Federal agencies are in charge of that much of the State, there is no common law, there is no State law that is applicable, because they operate under only admiralty and equity jurisdiction. A lot of people do not understand this, that the Federal agencies have no authority to protect rights out there on the public lands. Only you at Congress, and I would direct your attention to the very last page of what I submitted for the record. The courts have told us this, and on page 19 of our brief to the Supreme Court, listen to what the Court said back in 1850, and it is still good law today, under Downes and Midwell. The Constitution deals with the States, their people and their representatives.

The sole object of the territorial clause was to transfer to the new government the Northwest territory and to give the power to apply that territory to the objects and dictates by the States. The Constitution—now listen to this very clearly. The Constitution does not extend to the territories of its own force. We are not under any constitutional protections and that is the problem that is out here, and if you don't quit claim the land over to the States, and if you do keep control of it, you have to remove all rulemaking from the Federal agencies. You cannot have any police power that is vested in these Federal agencies. It must be invested in the State.

You must also statutorily remove all types of litigation that go on in public land matters and remove that from the Federal judiciary and the administrative law judiciary that has been set up. You have it under your power under Article 1, that is the only way we will be able to keep our rights intact out here and I thank you very much for your time and attention.

[The statement of Mr. Presley may be found at end of hearing.]

Mrs. CUBIN. Thank you for your time. And we will start the questioning with Representative Gibbons.

Mr. GIBBONS. Thank you, Madam Chairman, and first, let me address a brief question to Mr. Presley, who has just recently finished his testimony, and I would ask a very brief analysis of how you came about the conclusion that the Federal Government does not own the land here in Nevada, if you could do that very briefly for us.

Mr. PRESLEY. Thank you, Congressman, good question. It was in 1993, I had a client that had a problem with the Bureau of Land Management on grazing, and, also, there was some mining problems in Clark County, dealing with the desert tortoise issue down there, of which there was a full force and final decision that came out, full force and effect decision that came out to remove grazing from the desert tortoise habitat.

Now, they are under the Endangered Species Act, and the first thing I noticed, since we had come through the Nevada legislature in dealing with AB–77, the so-called sage brush rebellion 2, was that it didn't appear that the Federal Government owned any property out here, I will say, except Nellis Air Force Base and that is within Article 1, Section 8, Clause 17. So my forte is in the Freedom of Information Act and I performed a Freedom of Information

Act request to the Department of Interior, BLM, and their Solicitor took charge of my request and came back and said they had no documents responsive to my request when I asked them for the deed to this land.

But since then, what has happened out here is that they have claimed ownership under the Treaty of Guadalupe Hidalgo of 1848 when we had the conquest against Mexico. They are claiming that as their jurisdiction here today, which clearly makes that black encampment there of Nevada a territory and enclave of Mr. Babbitt, and there is no State there. The only place that there is State, members of the Committee, the only place that is the State of Nevada are those white spots up there and they are noncontiguous and we are beholding to these Federal agencies to get from point A to point B, so we are not a complete State.

And Madam Chairman, you have the same thing in Wyoming, Mr. Hansen would have it over in Utah, and in Alaska, Mr. Young certainly deals with that. That is what brought the question about they didn't have it and I tried to zero all of my research and for the arguments and for the Nye County case and now the Gardner case, I zeroed it in that they do not own the land because they couldn't produce title and that is the question we have before the Supreme Court of the United States, which I am here to say, unequivocally has never been before the Supreme Court of the United States in the 200 plus years of its existence. Thank you.

Mr. GIBBONS. Thank you. Dr. Myers. I presume your Ph.D. is in science of some sort.

Mr. MYERS. My Ph.D. is in hydrology.

Mr. GIBBONS. Hydrology. How would you abate or stop the water table drawdown due to an open pit mine? How would you stop that, in a surrounding area?

Mr. MYERS. During mining, the water table has to drawdown.

Mr. GIBBONS. We understand that, how would you stop that.

Mr. MYERS. Through recharge in the local basin. Part of what I had to leave out was testimony that, in fact, there are a few mines that are recharging the local basin. It is not working as well as it is supposed to. There are other mines that should be recharging better. We have argued, in environmental documents, certain mines should be recharging. We will argue it is only done where it is a very inexpensive thing to do.

Mr. GIBBONS. Let me move on, and understanding that issue, you talked about some mines that are not recharging and suppose, for example, let's take the Lone Tree Mine, which takes its water, cleans it, puts it into the Humboldt River and sends it down to Rye Patch Reservoir for farmers and ranchers to use. Is there a problem with the water quality in that water they are putting in the Humboldt?

Mr. MYERS. I don't recall constituent problems, I mean, specifics. I know there were temperature problems, the temperature in the Humboldt River increases rather substantially from just above their discharge point to just below and that is because the water is geothermally heated that they are dewatering.

Mr. GIBBONS. Let me ask another quick question. If water rights, in probably 16 of the 17 Western States are State prerogative, I

mean a State jurisdictional area, why should the Federal Government step in and deal with water, water rights?

Mr. MYERS. Well, for one, the 3809 regulations specifically state the BLM is required to enforce State law and we would argue that if the State is not adequately doing it, then the BLM is required to do that.

Mr. GIBBONS. And you have a complaint with Nevada's environmental treatment of its water within a State then?

Mr. MYERS. We do.

Mr. GIBBONS. Then it would be better, I presume, under your testimony to go tell the State of Nevada to change its water quality laws.

Mr. MYERS. But since we are focusing on 3809 today, it specifically states, in several different locations in those regulations that the BLM is required—excuse me, is required to enforce State regulations. It doesn't say where the State fails to do so, but it says the BLM is responsible for seeing to it that that is enforced, and that would be a BLM oversight. I mean, previous speakers have talked about the BLM having a responsibility for oversight.

Mr. GIBBONS. You also mentioned that due to the drawdown on some of these areas, the water table has lowered, and some people should be compensated for that. Who is not now compensated for the drawdown of the water table that should be compensated for?

Mr. GIBBONS. We would suggest that most of the impacts will occur, actually, after mining has ceased, after the pits have refilled, when you draw the water table down a thousand feet, 1,300 feet at a couple of places, that that drawdown cone continues to expand after mining ceases. The pit refills, I mean, for example, you mentioned Lone Tree, there is 1.1 million acre feet of deficit being created around that mine. The Twin Creeks Mine has 660,000 acre feet of deficit. That water is going to come from somewhere and we don't know—I am not going to say it is all coming from the Humboldt River.

What I am saying is we don't know where it is coming from and for those reasons we would suggest adequate mitigation, bonding and escrow account would be set-aside so 30 years from now the people who are affected could be compensated or the situation could be remedied.

Mr. GIBBONS. Mr. Gustin, let me turn to you now briefly in the time I have remaining. What suggestions would you have as to how to better resolve the conflicts that you stated in your testimony, in terms of regulatory authority, State powers, Federal powers, what would you suggest?

Mr. GUSTIN. Well, to me, the only way this is going to be resolved successfully is that the people who live in the areas that are affected have a lot more authority to say how things are done. I realize that in general, that might create a little fear in the hearts of mining industries, but I am pretty sure that when the State assumes a much larger role, that you will see consistency from States.

The State of Nevada has been a leader in mining regulation, and it works well. We have the most experience with that, and as has been previously testified, I believe that the experience that is

gained in places like Nevada can be transferred anywhere else and a lot of States look to Nevada for leadership on this issue.

Mr. GIBBONS. You mentioned also in your testimony that your business has been specifically impaired or harmed by current regulation changes, and maybe you could help this Committee a little by explaining how the new bonding requirements or the changes in 3809 have specifically impacted your business and as you see it, how has it specifically impacted mining operations on public land in the State of Nevada.

Mr. GUSTIN. In early March, while I have been in business for roughly 18, 19 years in the exploratory end of things, in early March, it looked like another routine year as near we could tell. We were getting our level of inquiries as to drilling on projects on public lands.

Once it was announced that there were proposed changes on a 30-day comment period on the bonding, for almost 6 months, nobody knew what to do, nobody could get drilling permits. I am sure that our businesses suffered 50 percent as well as many other people I am aware of in the industry. Many times, the regulatory agencies failed to consider not only the direct but the indirect impacts, I mean, all the way down to the mom-and-pop grocery stores and gas stations and everybody in the State of Nevada had become very dependent upon the expenditure of exploration dollars in this State, which are currently off, probably 70 percent, from where they were 3 to 4 years ago.

I don't know how 1997 is going to shape up, but I am sure it is going to be a significant decrease, even the major mining companies had difficulties going outside their operations plan area to even get a small permit for any level of disturbance, so myself, we have seen our business off 40 percent, cutting salaries and having to lay people off and that kind of thing. I don't see any resolve until the States have more of an ability to affect this process and it is not controlled out of Washington, DC, or at least if it is controlled out of Washington, DC, it is through our duly elected representatives here today, and, you know, we have about compromised ourself out of existence here, trying to get through this, and I don't follow the industry closely per se, but, you know, when you have large capital investments, and you have to project over long periods of time, these kinds of attack through the regulatory process, like on bonding, it is just devastating, just devastating, and we can't tolerate much more of that kind of activity.

Mr. GIBBONS. Thank you, Madam Chairman.

Mrs. CUBIN. Thank you. I think I will start with Dr. Myers. I am not trained in hydrology, as Representative Gibbons said earlier. I am a chemist, so I do know, or at least have an opinion on, I guess, as every other scientist would have to say, on what is good science and what is not good science, and that is one of the key areas of conflict over a lot of environmental things. People who don't know much about science and scientific models don't know how to judge whether they are getting good science or not, and I find today I am sort of placed in that position because I don't know much about hydrology. So I guess I just should ask, does the State—I am sure the State engineer has seen your opinion and testimony today. And does he give credence to your analysis or are you at odds.

Mr. MYERS. Well, I hesitate to speak for the State engineer. He acknowledges that there could be impacts in the Humboldt River Basin, but he has not—he, of course, does not—well, basically, about 15 years ago, the State of Nevada made a decision that it was going to support the mining industry and I believe we are reluctant to really strongly enforce it.

I mean, there is a policy of the State engineer to not allow groundwater withdrawals to exceed the recharge in a basin, unless it is on a temporary basis, and that is what we are doing, you know, some of these withdrawals exceed the recharge, but only temporarily. We, of course, have a concern then. I mean, our mine is projected to last to the year 2036. That begins to stretch the definition of temporary, I think.

Mrs. CUBIN. I don't want to put words in your mouth, just as I didn't before, but you seem to be saying to me that if the State engineer won't enforce Nevada's ground water laws, then the BLM ought to step in and do that; is that right.

Mr. MYERS. I believe they have the authority—well, the State engineer is required to interpret the laws, and to enforce them as he sees fit, and he is doing so, we would argue about that interpretation, I think is the best way I should characterize that.

Mrs. CUBIN. OK, then, question. Do you think the BLM ought to come in then and enforce or interpret Nevada's environmental laws?

Mr. MYERS. I think they have a requirement to, at least with regard to, for example, the Clean Water Act, them and the EPA together. They need to protect the public lands of Nevada. Their job is to prevent unnecessary and undue degradation. If contaminated water or drawn-down springs is causing unnecessary and undue degradation, and we would argue that it does, then I believe the BLM has the authority and needs to do more about that, and the problem is that some of these impacts may be 7 miles offsite. How do we argue the current regulations specify or imply surface disturbance and it implies, due to the mine, right at the mine, but a dry spring, 5 miles away, is also an impact on the surface.

Mrs. CUBIN. But Nevada does, in fact, have primacy on the Clean Water Act, and the Federal Government granted that primacy, so for me, it is hard to get the balance there. I mean, I just—well, go ahead.

Mr. MYERS. The EPA also would have oversight on that primacy, though, I believe, and I will give one specific example. On the Jerritt Canyon Mine, we got from the Division of Environmental Protection, about an inch of water quality reports. All throughout them, there are specifics where water quality standards were not met. There has been nothing done about these particular——

Mrs. CUBIN. Who is that from?

Mr. MYERS. The Nevada Division of Environmental Protection. That is why we will argue that the BLM does need to look, you know, they have an authority there that they really should help encourage better enforcement.

Mrs. CUBIN. But Jerritt Canyon is Forest Services isn't it.

Mr. MYERS. I'm sorry, Jerritt Canyon is Forest Service, that is correct. But the point deals with, you are asking about the State enforcing the Clean Water Act. That is the instance I have on top

of my mind at the moment. There are others. There are instances, I believe at pipeline and others that we have collected the data, we look at it, and we are just building a large pile of that evidence right now.

Mrs. CUBIN. And surely you can sympathize with those of us who aren't experts in hydrology trying to figure out who to believe.

Mr. MYERS. Yes, and I would like to emphasize, what we emphasize with regard to water quantity and hydrology, I am not the water quality expert here. I tend to focus on water quantity. We try to emphasize the uncertainty of the problem. We think we are permitting with a great deal of uncertainty and one of the only ways to get around an uncertainty is through bonding and through mitigation.

Mrs. CUBIN. And I don't know of anyone that questions whether or not bonding is necessary. I think everyone believes it is. I guess it is how we go about deciding what that bonding should be that is in question—no, not what the bonding should be, how the bonding should be derived and whether or not there ought to be public input and apparently the BLM thinks there should not, and I certainly think there should but that will be decided in court.

You mentioned our colleague on the Subcommittee, Mr. Rahall of West Virginia and the mining law reform bill that he introduced in this Congress again, which has been referred to this Subcommittee. What you didn't mention, so I will, and it is not your obligation to mention it, is the fact the last Congress did pass several reforms to the 1872 Act and that the 1872 Act has been amended many times throughout the years, and I mentioned in my opening statement that the bill, H.R. 2491, among other things, established a trust fund for abandoned mine land reclamation, which we were careful to put in the hands of the State, by the way.

What that bill did not do, and what the Rahall–Bumpers bill wants to do, is to create incredible disincentives for investment in public lands, because that bill requires so-called suitability reviews. And I would say that no prudent miner or prospector would invest the huge sums of money that are necessary to develop a new mine if they are really subject to anyone claiming the faintest harm to things like impairment of view shed aesthetics, any kind of lawsuit that could come forward.

I think what the Rahall–Bumpers bill would essentially eliminate is any new mining period, and while I certainly agree and respect that you have every right to hold your opinion about that bill, I hope that—well, no, I don't hope that, but I certainly have my right to that bill and the authority whether or not to bring that bill in and mark it up. I think we offered some good amendments to that 1872 bill. And to Mr. Gustin and Mr. Presley, both of you presented very thought-provoking testimony, and, frankly, Mr. Presley, I really, really hope you win, but that is in the Supreme Court right now, and so I don't think I or anyone on the Committee really can take any sort of a professional stand on that.

As a duly elected Member of Congress, I am mindful of the property clause, Article 4, Section 3, Clause 2, which does, indeed, state that Congress shall have the authority to make all the meaningful rules and regulations concerning disposal of public property and the territories, but, unfortunately, previous Congresses have al-

lowed the executive branch to encroach on what truly ought to be our jurisdiction, and we are trying, we are working every day, to try to get that authority back because I believe constitutionally it was granted to the Congress and not to the executive branch. Would you like to comment on that?

Mr. PRESLEY. Yes, Madam Chair. You raise the Achilles heel point to this whole problem we have out here with 3809 atrocities that occur. The property clause has been misapplied inside the States, inside our State and inside your State. However—and I fully appreciate the fact that through the political process, that Congress has to nibble back at this, when you have got, you know, Representatives in Congress like Mr. Rahall, who are coming from clearly the opposite end of the envelope. But you may want to have your legislative counsel back there really delve into the Administrative Procedures Act and what it actually applies to.

You see, there is a misconception out here that it applies to the Code of Federal Regulations and gives autonomy to the Federal agencies and promulgating rules to implement the statutes of Congress and that simply is not the case. As a researcher, when I go in, I don't only look at the Code of Federal Regulations, of which 3809 came from, I will look at their handbooks and their manuals and the Administrative Procedures Act mainly applies to those handbooks and manuals and that Congress still has the regulatory power over these agencies.

And here is my specific suggestion to you, and an introduction of legislation, that when you have something involving the public lands out here, until the ownership issue is addressed, or you are able to muster enough to get a quit claim deed to the State of Nevada and the rest of them, what you do do is you put something in the legislation that says, "and we really mean this."

In other words, if there are water rights out there on the public lands and the Federal agencies are going to manage, you must say that you cannot make those attacks on those decries and those adjudications that have happened at State Court, specifically, rights acquired under common law of the State shall be supreme in the implementation and management of Federal land managers under the public lands. That would go a long way with us. I have been in the administrative courts. I have brought an Administrative Procedures Act case. The Federal judiciary of administrative courts just simply say you don't have any rights out there.

So you see there is no remedy at law for us when we are in the adjudicating process and that costs the client hundreds of thousands of dollars. Just one little thing like that in legislation that says the common law of the State that has brought about the recognition of those rights on public lands, grazing and whatever, mining, especially, would go a long way in curing everything. Thank you.

Mrs. CUBIN. Thank you. And thank all of you for your testimony. We will be calling the next panel forward at this time. Royce Hackworth, Dr. Anthony Lesperance, Zane Miles, Michael, because I am not even going to try your last name. You can tell me how you, how to say it when you get here, and John Carpenter, please come forward.

Thank you. We will begin this panel with Royce Hackworth, of the Elko County Commission.

STATEMENT OF ROYCE HACKWORTH, CHAIRMAN, ELKO COUNTY COMMISSION

Mr. HACKWORTH. Madam Chairman Cubin and Congresswoman Gibbons, I am Royce Hackworth, Chairman of the Elko County Commission and owner of Hackworth Drilling, Inc. I want to welcome you to Elko, and I appreciate the Subcommittee coming to the people and the area where the revision of 3809 regulations will effect. It shows the mining industry and the residents of Elko County and the United States the willingness and the concern we have had with getting the facts, and whether the BLM needs to rewrite the 3809 regulations.

Elko County is 10.9 million acres in size and yet only 28 percent of it is under private ownership. The other approximately 72 percent of the county is public lands under Federal Management. On public lands in Elko County, the mining industry does explore for and find many valuable mineral deposits, such as gold, silver, copper, barite bentonite and gypsum, just to name a few.

The mining industry creates many good paying jobs in exploration and development of these resources. On average, industry pays in excess of $38,000 a year plus benefits in the jobs it creates. Jobs that are created employ people with Ph.D.s, all the way down to those who did not complete high school. The mining industry creates good-paying jobs for men and women alike. These high-paying jobs are at the level where their employees do not depend upon State and Federal subsidized housing, food programs, health care programs, to live the American dream.

In fact, the industry and their employees pay taxes to support those who depend upon State and Federal programs just to live. And with the current change in legislation coming about, we see a shift moving back to the States and from the States back to the county to help pay for these programs. My concern is the change in attitude toward the mining industry by the Federal agencies, by the implementation of undue and excessive regulation.

What troubles me is the method and the reasoning the BLM has used in deciding to change the 3809 regulations. I do not believe, nor will I accept the Secretary of the Interior having the power to circumvent the NEPA process and Congress in changing 3809 regulations. The BLM does not clearly define a purpose and need along with a definitive and specific proposed action for public scoping as NEPA regulations require that EIS briefly specify the underlying purpose and needs to which the agency is responding in proposing the alternatives, including the proposed actions.

When the Secretary makes a statement, it is plainly no longer in the public interest to wait for Congress to enact legislation. I fear for the future of our country. For the framers of our Constitution or you as duly elected Members of Congress should or would believe that any Federal agency could obtain or try to circumvent the powers given to Congress. 3809 regulations are not an impending emergency or a national security, so why should the Secretary be permitted not to follow the normal NEPA process or circumvent congressional wisdom.

The Federal public land agencies cannot, nor should not be given unlimited ability to create regulations without congressional oversight. Let me give you a couple of examples of regulations run amuck by the Federal land agencies in our county. Here in Elko County, U.S. Forest Service employees of the Humboldt Toiyabe National Forest are protected by agency regulations that prohibit them from being subpoenaed to testify before a grand jury, a classic example of a Federal employee being immune from the laws that every citizen of the United States has to abide by.

Where logic doesn't work when it comes to Federal land managers, just following the regulations they are in charge of, we have Jarbidge Community Cemetery. Elko County is trying to obtain a 1-acre addition to expand the current cemetery. The U.S. Forest Service comes back to the county with a 20-year lease for the 1-acre parcel.

The county is in a dilemma. We do not know whether to rename the cemetery the Jarbidge Community Time Share Cemetery or the Jarbidge Lazarus Cemetery. With the current boldness of the Federal land agencies in creating new regulations, I feel they believe they have been granted a higher power of authority. However, I do not believe they will be able to raise the dead every 20 years to renew their cemetery lease. This year the BLM enacted new bonding requirements for claim holders on public lands, without following the NEPA process correctly. This is just putting more nails in the coffin for the mining industry in the United States.

We have already seen a 70 percent reduction to claim holders when the hundred dollar holding fee per claim was enacted. By not encouraging people and companies to look for mineral discovery here at home, we are driving the mining industry outside our country of good paying jobs. I am here today as a county commissioner asking you to please stop the BLM from enacting undue regulations on the mining industry. Current regulations are being handled by the States and current Federal law. Please use whatever power you have to curtail the Secretary of the Interior for not following the true NEPA process in creating regulations.

Also, I am asking you to invoke newly enacted bonding regulations and have the bonding regulations go through the true NEPA process that defines the purpose and needs in a way the law intended it to be enacted. In the State of Nevada, we have a comprehensive, regulatory environment to protect the citizens and the lands in our State and I thank you for the opportunity to make this testimony.

[The statement of Mr. Hackworth may be found at end of hearing.]

Mrs. CUBIN. Thank you, Mr. Hackworth.

Next, we will call on Dr. Anthony Lesperance. You tell me how to say your name.

STATEMENT OF ANTHONY L. LESPERANCE, ELKO COUNTY COMMISSIONER

Mr. LESPERANCE. You did pretty good. I can't even spell it yet. Madam Chairman and Congressman Gibbons, I request unanimous consent that my statement and the attached exhibits, which are

two lawsuits, be made part of the record. I consider these lawsuits very, very important.

Mrs. CUBIN. Without objection.

Mr. LESPERANCE. Thank you. Today, you are hearing much about the 3809 regulations and impact that the actions of this nature have upon the economy. Our business, Great Basin Agriculture, has been a major player in mine and exploration reclamation. Consequently, we are in a unique position to engage the impacts of regulation, such as 3809.

Without belaboring the point, it is sufficient for me to say those impacts are very significant. Perhaps it might be more important—more appropriate to analyze why regulations like 3809 occur to begin with and what actions of this nature might really represent. Every single department of the Federal Government is a bureaucracy. Bureaucracies must either grow or stagnate.

How do bureaucrats make a bureaucracy grow? Very simple. They either increase the mass their agency regulates or increase the complexity with which it regulates. Either action, if successful, increases job security, promotion, and all the benefits associated with bureaucratic growth. That is how regulations like 3809 come into being. The 3809 is only the tip of the iceberg.

Growth of bureaucracy is difficult enough for those of us who produce weather to contend with, but when the bureaucracy becomes unethical, it presents a set of problems that at best are almost impossible to deal with and at worse, could well lead to total anarchy. It seems to be a given that bureaucracies must grow. Only you in Congress can control that with fiscal restraint, a fact which despite all the rhetoric, Congress has failed to do, but what about the ethics of the bureaucracy.

Let's examine the ethics of agencies we here in Nevada most frequently deal with, the land management agencies. I will briefly mention a few events central to ongoing litigations. The cutting of fences or opening of gates so that legitimate reasons can be found to trespass livestock permittees; the mechanical covering of springs with dirt to disallow further use of water from those springs for irrigation; the movement or hiding of historical survey markers to confuse issues on location; the hiding or destruction of the historical documents absolutely necessary for settling of disputes; the physical changing of monitoring data to make livestock grazing look damaging; the hiring of so-called experts to present distorted historical and factual data to support agency position.

The elimination of years of outstanding research, because it no longer supports philosophy and, yes, even the threat of death if one dares to oppose the government action including the taking of personal property, and 3809 is simple. Just compound the bureaucratic red tape until complying becomes physically and financially impossible. Agencies that control the public domain want full control and that includes water.

I am aware of no less than six litigations between private individuals, political bodies, water districts and others and the United States, concerning water rights here in Nevada. The United States Forest Service leads a parade, close behind is the Department of Interior, including BLM and the BIA. Control of water in the West is control of all that occurs in the landscape, including mining.

I will call your attention to two of these litigations. I am providing you copies of both the suits, the first involving the Truckee–Carson Irrigation District, requests repayment of 1,057,000 acre feet of water, including interest, for water allegedly stolen from Pyramid Indian Reservation between 1973 and 1988.

I will not go into the details of the ramifications, but loss of this suit would bring upon the water users of the district, as well as the towns of Fallon and Fernley, but it is sufficient to say the results of losing that suit will be catastrophic. Worth more concern, however, is the case known as the Walker River suit.

The United States is laying claim to all water of the Walker River watershed from the crest of the Sierra Nevada Mountains in California, to and around Walker Lake in Nevada. Their claim includes all surface water, as well as under groundwater within the entire basin. Theoretically, if won, the water would be transferred to the Walker River Indian Reservation for beneficial use. However, what seems to go unnoticed is much of the land being claimed by the government for the reservation, includes mountains totally capable of being irrigated.

Further, the reservation does not want the water, although again that doesn't seem to be very important in the eyes of the government. The distasteful part of the Walker River case is the fact every water user for the reservation will lose their water. That includes 1,200 active claims, resolving certainly what must be the single largest takings case in the history of this country.

Finally, I would call your attention that you must never forget that all wealth, by its very definition, ultimately comes from the land of the associated waters. When you regulate the ability to create wealth out of existence, it will be but a few short years before our national economy is in shambles. Add to that the ever-increasing takings of private property rights and anarchy will surely follow. Thank you.

[The statement of Mr. Lesperance may be found at end of hearing.]

Mrs. CUBIN. Thank you very much. I21The next witness will be Zane Miles, Deputy District Attorney for Eureka County.

STATEMENT OF ZANE MILES, DEPUTY DISTRICT ATTORNEY, EUREKA COUNTY

Mr. MILES. Thank you, Madam Chairman, Congressman Gibbons. I convey the regrets of Pete Chiny, our County Commissioner Chairman, that he can't be here today. Pete is back in Washington to testify today before another committee on another interior matter, and you have me as a substitute.

Mrs. CUBIN. We are glad to have you.

Mr. MILES. I again would ask that our written remarks be incorporated in the record and we will excerpt them very briefly today.

Mrs. CUBIN. Without objection.

Mr. MILES. You know, perhaps the most disturbing current trend in the Department of Interior is apparently, it is believed, that the bureaucracy in Washington, DC knows what is best. The bureaucrats regularly ignore local government, just as they regularly ignore the Congress of the United States. It is appalling to me that Secretary Babbitt can declare that since Congress has chosen not

to act on some of his pet projects, that he will impose his beliefs anyhow by adoption of bureaucratic rules and regulations.

I would suggest to you that Secretary Babbitt take the same oath you did and that I did and protect and defend the Constitution of the United States, and what he is doing is such an egregious violation of the concept of separation of powers that I find it appalling that Congress has not found some way to draw rein upon such a headstrong approach.

On a State and local level, the State of Nevada and Nevada's mining counties have an excellent record of common sense of environmental and other controls of the mining industry. Our enforcement is thorough, thoughtful, unbiased, complete, effective, and accomplished with due regard for the benefits resulting from mineral development.

If Congress, in its wisdom, is to decree that environmental rules are to be applied to small sites, like the new 5-acre rule, the Nevada Division of Minerals and NDEP, Department of Environmental Protection, and the local district attorneys will enforce those laws. We have done so in the past, and in other contexts.

Ironically, when I got into Elko yesterday, I picked up Saturday's edition of the Elko Free Press, and on the front page is a rather lengthy story, headlined, "State Fines Newmont $23,500." Newmont mining is a very environmentally responsible organization.

Our county is the largest coal-mining county in the world, and we work closely with Newmont, Barrick, Homestake, Placer Dome, the others, and Newmont does a good job, but they can have problems just like anyone else; mistakes can occur. And when the mistake did occur in this case, the State stepped in and took administrative action. Had the administrative action not been sufficient, the State would have come to the local District Attorney's Office and asked us to take criminal action, which we would have been authorized to do. That hasn't been necessary at this point, it has occurred in others.

I will give you another example. In Lander County, the county to the West of us, a few years ago, there was a very small migratory bird kill where some birds got through netting and managed to get into a cyanide-laden pool. As I recall, the fine in that, for the death of two migratory birds, two ducks, was $50,000, $25,000 a bird, and that matter was handled by the State Department of Wildlife and the local District Attorney there in Lander. There is no need that we can see to bring in Federal regulations and Federal agents to enforce what the State of Nevada is already doing and doing very well. If there are two things I can leave with you today as thoughts, it would be these.

First, I feel that Congress must take its lawmaking powers more seriously, take back the rules, and sharply limit the power of unelected bureaucrats to make rules and regulations with the force of law, and, second, where Federal laws, rules and regulations are needed, Congress should mandate that its laws be enforced in the State and local governments if the States and local governments are willing to do so. Direct Federal enforcement is unnecessary unless States and counties refuse to act. That has certainly not been

the case in Nevada. Again, thank you very much for coming to gold country to hear what we have to say.

[The statement of Mr. Miles may be found at end of hearing.]

Mrs. CUBIN. Thank you very much, Mr. Miles, and we are glad to have you here, even though your boss had to be some place else. We might have even picked you, you don't know.

Next, I will ask Mayor Michael Franzoia.

Mr. FRANZOIA. That is exactly right, good pronouncing.

Mrs. CUBIN. Thank you.

STATEMENT OF MICHAEL J. FRANZOIA, MAYOR, CITY OF ELKO

Mr. FRANZOIA. Thank you, Madam Chairman and Congressman Gibbons for allowing me to have the opportunity to address you today. I personally welcome you to the great city of Elko. You are here today to listen to testimony regarding the mining industry. As a citizen of this city for the past 17 years, I would like to share with you the impact we have experienced for mining. All of this I have witnessed firsthand.

Elko continues to be a growing, thriving community. In 1980, our population was less than 10,000 people. We now have a population that approximates 19,000 and we are projected to reach a population of nearly 31,000 in the next 15 years. Initially, this growth represented impact challenges to our high quality of life, but to these challenges, the community began receiving many things we otherwise may have waited for and perhaps would never have realized.

Growth has been good for Elko and the mining industry has played an important role in our success. Let me give you a few examples. To bring new families into the area, the mining industry invested in permit quality housing developments. This moved Elko away from being a boom town in a traditional sense, a traditional boom town is one that grows temporarily, then upon industry downturn, literally moves out. Permanent investment into Elko by the mining industry ensures long-term community sustainability.

Another one, investment by the mining industry into our recreational facilities enables us to offer activities to citizens and visitors of all ages. Donations in cash and services to recreational projects include equipment, parks, sports fields and a ski facility. Access to cultural activities and events have improved for all of us.

Our museum is in the middle of a major expansion, the Western Folk Life Center, which is a major attraction for citizens and visitors alike, and the Great Basin College now has a theater where we can enjoy a variety of entertaining performances. All of these are benefactors of the generosity of the mining industry.

Education has been enhanced in Elko. What was once known as Northern Nevada Community College is now Great Basin College. This fine institution offers education and training in a wide variety of fields, including mining technology, and we are all watching for this institution to become a 4-year college in the near future.

The mining industry and its employees have been great supporters of our college, as well as our public school system. A new junior high is now in use in the Spring Creek area thanks to the mining industry's major contribution to the project. We are glad this indus-

try has impacted our community. It has been a positive impact on our quality of life.

Any legislation regulations that harm mining is certainly not in the best interest of this community and any impact should be considered on the impact that it has with our community. I would like to thank you for providing me the time to share this excitement I feel about the city of Elko and our growth and the things we have to celebrate in our community, much as a result of our mining industry neighbors. Thank you again.

Mrs. CUBIN. Thank you, Mayor.

Our next witness will be Assemblyman John Carpenter, but before he testifies, I would like to let everyone know that Senator D. Rhoads was invited to this hearing to testify as well, but he did have a prior commitment and he is submitting his testimony for the record. I understand he is on a cattle call and coming from Wyoming, I know how important that is. Assemblyman Carpenter.

STATEMENT OF JOHN CARPENTER, ASSEMBLYMAN, NEVADA LEGISLATURE

Mr. CARPENTER. Thank you, Madam Chairman and Congressman Jim Gibbons, my fellow assemblyman a few years back. I would like to put a little different spin on the situation of mine dewatering Dr. Myers told you about. I think that our big problem with mine dewatering is going to come when the mines want to quit dewatering. At that time, there are going to be many agricultural interests that have come to depend upon the mine dewatering and they are not going to like to see those pumps shut off.

The great wetlands that have been created by mine dewatering, people are not going to want to see them dry up, but I do think one thing will happen and that is Nevada is going to have some of the best fishing holes in the world.

In regard to the Nevada legislature's concern about the hardrock mining regulations, their changes, after joint hearings, the legislature adopted Assembly Joint Resolution Number 7, which expresses outrage over the procedures followed by the United States Bureau of Land Management in adopting the new rules. The resolution outlines procedural issues and urges the Secretary of the Interior to suspend or withdraw the rules.

In the packet that has been handed to you is an actual copy of the resolution. It goes on to state many of the problems that have been expressed here today. I think that you can read the resolution and see for yourself that the legislature of the State of Nevada was very concerned about this kind of rulemaking. I would like to remind you that the Nevada legislature that passed this resolution comes from the most urban State in the Nation. You would not think that with our open spaces that we would be the most urban State in the Nation, but with the majority of the population in Las Vegas and Reno, that is the situation. So I think it goes to show that the urban people are concerned about rural Nevada, and so that when people from Washington, the bureaucrats, start taking pot shots at us, everybody gets up in arms.

As you are aware, the rule was not withdrawn and it took effect on March 31, 1997. Not having been successful in getting the rule modified, the legislature recognized the need to assist miners in

complying with its requirements. The Senate bill 440 was enacted. The measure expands Nevada's existing program through which mining operations and exploration projects can obtain performance bonds to ensure reclamation of their mine sites.

Under existing law, operations that disturb 5 acres of land or more in a calendar year are eligible to request a bond through the State bond pool. Senate bill 440 expands the eligibility to include operations that disturb less than 5 acres per year as required by the Federal regulations, as well as projects of any size that must post a reclamation bond pursuant to county requirements.

I believe that the new bonding regulations are just a continuation of Secretary Babbitt's war on the West. In regard to mining, without small miners on the ground doing prospecting, much of our large mines would not exist. I think that if Secretary Babbitt feels that if we could shut off this exploration as Chairman Hackworth said, we will drive another nail in the coffin of the miners. These regulations are having a very adverse effect on our livestock industry here. Utilization standards on riparian areas are driving our ranchers off the land, there is no question about it.

Mrs. CUBIN. Feel free to give your entire testimony if you want to.

Mr. CARPENTER. It is too long, I don't want to do that. I would just like to say, though, that Congress must exercise veto power over agency regulations. It seems no one can control the bureaucracies, even cutting the budgets does not seem to help. And so the agencies are forced to comply with laws. No citizen is safe from the tentacles of unnecessary regulation.

In Nevada, we now have—the legislature has the authority to veto any agency regulations. As Jim will remember, the legislature passed a statute to give us that authority. The Governor did not like that and he filed suit, and the Supreme Court ruled that the legislature did not have oversight of agency regulations so that was the last time we had a constitutional resolution that gave the legislature veto power over the regulations that the bureaucracy was trying to propose. So I think that it is necessary that the Federal Government, the Congress, also gets that authority back. Thank you very much for being here and listening to us.

[The statement of Mr. Carpenter may be found at end of hearing.]

Mrs. CUBIN. Thank you very much for being here. Questions, Mr. Gibbons.

Mr. GIBBONS. Thank you, Madam Chairman. Perhaps one. John Carpenter, very early on, since he and I shared a great deal of our life together in a State legislature, especially on national resources. Do you feel that by the resolution that the State of Nevada has, AJR Number 7 here, that there was a concern by the State legislature that new bonding regulations were not needed; that the laws and provisions of the State with regard to the protection of the environment, the water quality, air quality, et cetera, were adequately covered by existing laws, regulations, and was that the reason why you decided to pass this resolution, in light of the changes of the proposed changes in 3809?

Mr. CARPENTER. Thank you, Jim. I don't think there is any question but that the regulations that Nevada has in place are ade-

quate. They are a model for, as we heard here today, for the industry, not only in the United States, but throughout the world. And we really didn't see any reason to have these changes.

For instance, one of those changes is that you have to have an outside consultant come in and look at your reclamation projects. That doesn't make any sense at all. That is just like saying that the people that you—people you choose for your staff, that they ought to have somebody looking over their shoulder all the time. It is absurd to do those kinds of things and Nevada is a leader. I think that, Jim, you were in the legislature with myself when we promulgated the statutes, and they are very thorough. They provide for more than adequate protection for the environment, and I believe that the legislature felt that, you know, we are doing our job and we just don't need all that direction from Secretary Babbitt.

Mr. GIBBONS. Thank you. Zane, in your job as the Assistant District Attorney, do you feel that your office, as well as the State of Nevada, are adequately enforcing the laws with regard to environmental issues and reclamation as permitted through State requirements.

Mr. MILES. We enforce the law so that we agree with them or not, and often we don't. Eureka County is in the fortunate situation, since we do have the largest gold production county in the world, we have the resources for local government to do its job, and we are certainly capable of doing whatever enforcement is necessary. I have no qualms at all about—and neither does my boss, about filing a criminal action, if, in fact, the circumstances would justify it.

On the other hand, we have what is called prosecutorial discretion, and in its best sense, that means that we can look at a situation and determine whether the offense is accidental, deliberate or whatever, and that happens throughout the State. This Newmont fine, administrative fine, is a perfect example. The fine was reduced slightly because Newmont cooperated and bent over backward to cooperate with the State Department of environmental protection, and consequently, the NDEP never came to us for any sort of a criminal prosecution, and none is needed. If one were needed, yes, we would do it, we certainly would.

Mr. GIBBONS. OK. Mike, let me turn to some of the comments that you made with regard to infrastructure, development, and support for the mining industry toward the city of Elko and its needs, assuming that we understand that Elko has been, for a long time, the sort of bedroom community for many of the mine workers who work in Eureka County or outside of the area.

Do you feel that with your position as Mayor, that you will experience a less or degraded interest by the mining companies in helping with infrastructure needs in future development if 3809 regulations impose new and more burdensome costs upon the mining companies?

Mr. FRANZOIA. Oh, yes, I would definitely say that would be a detriment to the city. Right now we get a lot of support on recreational facilities. Like I said, anything involving new, but if there is a downturn on the requirements, obviously it is going to be a cost factor for the mines, with less funding sources available for

those improvements to the city and, yes, I think we would suffer greatly in a lot of areas, not only in city infrastructures, but support that the mines have with other organizations in the community, such as soccer, little league and those kinds of functions, which we have a great situation here where we have a lot of volunteers that are out there and the same token would be—on a nonfinancial basis, would be the support of the employees in those same activities as volunteering goes.

A lot of these things that happen in our community make it the way it is, and we support, even with the Western Folk Life, putting that on, our results of the activities and people getting involved, donating their time, aside from donating money from the mines, so we have a lot of mining employees that participate in these things and it is crucial, and any downgrade to the situation we have, being that we are the community for the mines and we are impacted greatly more than any other city on the corridor, at least in the county, it is a detriment to us, no question about it.

Mr. GIBBONS. Let me ask a followup question. Do you notice the deterioration in the quality of life, whether it is air quality, particulate matter in the air or something because of the current operations of mines in and around the Elko community?

Mr. FRANZOIA. Not at all. The only thing I see that is a detriment is increased traffic, but we work on that. As long as the community grows either 4 percent a year or 2 percent a year, eventually you are going to deal with additional traffic problems, but actually I have a tendency to pride myself when I travel out of town to tell everybody how good Elko is and how blue the skies are and we may have 3 or 4 days a year with fog, and it usually breaks up by 10 in the morning. Otherwise, the only particulate matter we see coming through is when the winds blow up and we get dust all the way from Lovelock that is airborne for hundreds and hundreds of miles, so otherwise we don't see at all an impact from air quality or standards of life in the city.

Mr. GIBBONS. Wasn't, 1994, Elko named one of the most desirable communities to live in in the United States?

Mr. FRANZOIA. Nineteen ninety four, Elko was considered one of the best small towns in America, the quality of life being a major focus and also the economic values of the community and cultural activities we have in the community, all played a part in that recognition.

Mr. GIBBONS. Let me turn my attention over to Royce Hackworth, who talked earlier about mining industry and 3809 regulations. Do you feel, in your position as a county commissioner, that the citizens of Nevada, in general, will see a marked improvement in the quality of their life, on a county-wide basis with a major overhaul of the 3809 regulations pertaining to mining.

Mr. HACKWORTH. I don't see where you would see a major improvement, but what we see is currently the rules and the regulations that are out there that the mining district has to follow seem adequate. There may be some areas they want to look at, but at the same time, a major overhaul of it, I don't see it as a benefit to the assistance of Elko. What I see is, and we are seen in the industry as mining companies today that have properties all on pri-

vate land taking 28 months just to get a permit through, to go through all the permitting agencies they have to.

You add the tier of the Federal Government on top of it, and it extends that period of time. Some of the permitting goes in conjunction, but the issue of it is the major overhaul that comes in. It delays the potential of that mine opening, and they will look at the economic impacts it has for the regulation to become so severe. It will change the economics of that mine working.

But the other thing that really changes a lot and I don't think a lot of people recognize this is if those regulations become very severe or unduly in their implementation, what it does is it affects the future of anybody living in Elko County. We have big mines today that could show production going on until the year 2030, but at the same time, who is looking for the next mine off of their main site that they have right today. The grass roots exploration is a thing that even in my own business, and Mr. Gustin stated, were indicator species for the industry. And I am going to tell you, it is off, this year we are at 50 percent of where we were approximately 7 years ago. And this is where I get really concerned.

It is not—the Barrick and Newmont have good land positions, are finding things on their own property, but who is looking for the next one, and everybody says, oh, you will never find a Barrick, Newmont. I think Placer Dome is an example of what they have done on that trend and that is real close to their own block right at this point in time, but somebody looking outside of those trend areas, those are the things we are seeing happen, those are the areas I have a concern with is because nobody is looking, as they did 10 years ago, for the next one.

Mr. GIBBONS. So you see with the new changes, there will be a dramatic downturn in the exploration of new mines, based on the burden of proposed changes to the 3809 regulations, so that exploration will not be out there to the degree where we will find major bodies that will be both economically advantageous to not only the State of Nevada and the people of Elko, but the United States as well.

Mr. HACKWORTH. It reduces that potential dramatically is what it does.

Mr. GIBBONS. Dr. Lesperance, you talked in some detail about some of the occurrences that took place, that you have great concern with over the actions of some of the Federal agents. Have you any personal knowledge of any of these activities, like the destruction or covering of springs, the destruction or covering of survey monuments, et cetera, that you brought up.

Mr. LESPERANCE. Yes, I am somewhat knowledgeable about surface water rights. I am somewhat knowledgeable about the history of Nevada, having worked with land issues for over 40 years now. Consequently, I am frequently used as an expert witness in land issues. In particular, during the last, you know, about the last 5 years, I have been intimately involved in two major takings cases in central Nevada against the Forest Service and a case here in Elko County in which the county was involved in the Forest Service, in a lawsuit, and still is. And most of what I referred to come directly out of those litigations.

All three are still in process, although one is closely being settled out of court, with basically the cave-in by the Forest Service, so one, I think, we are going to do pretty good in. But all of those things I mentioned come directly from the various litigations. They were also the reason, I feel, it was absolutely necessary that this county enact a grand jury and they did call for that grand jury in 1994 to look more thoroughly into these matters of some of the problems between private industry, even county government, State agencies, and the Federal Government, and that is why I called for that. As you will recall, we had a successful petition, and somewhat over a year ago, we did enact a grand jury.

Mr. GIBBONS. Some of your information came directly from employees in the Federal Government who were witness to this themselves?

Mr. LESPERANCE. No, we don't get too much information from the Federal Government. They refuse to participate in the grand jury proceedings. Obviously, they do participate in the lawsuits. Most of my knowledge has come from investigative efforts that have resulted in uncovering of the various facts and are part of the litigation at this point in time.

Mr. GIBBONS. Perhaps, Doctor, I should also ask you what your Ph.D. is in.

Mr. LESPERANCE. Various sciences, biochemistry, nutrition and ecology.

Mr. GIBBONS. Now, let me ask the final question here and I will turn it back over to the Chairman. Have you been financially impacted by 3809 regulations since their inception?

Mr. LESPERANCE. From a practical standpoint, no, it has had very little impact upon us because we are basically out of the reclamation business at this point in time. Our firm was, I am quite sure, would have been considered in the late 1980's, early 1990's, to be basically the reclamation leader. From the practical standpoint, we were involved in reclamation projects throughout the West, final reclamation, primarily writing of reclamation plans and actual final reclamation, which includes the seating process, so forth and so on.

Because of my involvement in these lawsuits and as well as my involvement in the grand jury, there has been significant pressures brought to bear on our firm and at this point in time we are essentially out of the reclamation business. From a practical standpoint, therefore, 3809 has not got much impact on me because our businesses are nonexistent. I am quite sure it would have if we were still at the level of reclamation as we were 5 years ago. It would have a significant impact.

Mr. GIBBONS. Thank you.

Mrs. CUBIN. Thank you. I don't know exactly who to ask this question of so I think I will start with you, Assemblyman Carpenter. You have identified one of the biggest problems that we have at the Federal level and you indicated you also have at the State level and that is that due to separation of powers, we don't have the ability to do very much about regulations that are passed by the executive branch. And I have been trying to figure out a way that we could do this and I have had several ideas and I would like your opinion on this one. What would you think about every Fed-

eral law that was passed, and the regulations that accompany it, being sunsetted after 10, 15, 20 years. I don't know the amount of time, but if we—well, I am not going to try to sell you on it. You just give me your impression on it. Would you think that would be workable?

Mr. CARPENTER. Well, thank you, Madam Chairman. I would like to think it would be workable. I would think, though, that the—if you could sunset them every few years, why couldn't you review them and if they were not following the intent of Congress, then amend that original law to take care of the situation that you saw that had placed too much of a burden.

It would seem to me that, you know, there are a few things that make sense, even coming out of Congress and the State legislature. Most people don't want to believe that, but sometimes they do, that we probably wouldn't want to get rid of, but I sure think you ought to be able to review them, and if the agencies are going counter to the thoughts of Congress, then you should be able to change that statute.

Mrs. CUBIN. Well, I would suggest that sunsetting them would have that exact effect, because if the law no longer applied, then it would be sunsetted. If it did, but needed changes, those adjustments could be made, and if it didn't, then you would just reenact the same thing, but that would not put us always on the defensive.

At that point, we would have a chance to have our—you know, to be at the table and to update even those laws. I know that that is sort of a radical-sounding idea, but I think, really, when it comes right down to it, that will work better than trying to figure out how we can have oversight or how we can really have much affect on regulatory reform.

As you probably know, the Congress passed a law that said that within 60 days after a rule was made final, that they could overturn it with a two-thirds vote in each House. Well, essentially, especially with the Congress that is as politically divided as we are today. That is essentially like having no oversight at all. So that is a problem and that brings me back to Mr. Miles.

Mr. Miles, certainly I couldn't agree with you more. You talked about the separation of powers. And I am going to make a statement which probably comes as a big surprise because I have been doing more talking than you have, and then I would like you to comment on this.

I agree with you that the Congress has given up its responsibility to the executive branch, and I also agree with you that it is appalling that Congress hasn't been able to reign in this administration, but I would suggest that this is a lawless administration, and that very separation of powers that you were talking about, Mr. Babbitt, having said, since the Congress won't pass the mining law, I will, and he has done that on many things. It is that very separation of powers that if we uphold our constitutionally sworn obligation, we can't tread on that either.

Really, the only vehicle the Congress has is asking for a special prosecutor from the Attorney General. In this case, we have a lawless administration, who is using the Justice Department to protect them from public scrutiny, to protect them and refusing to, in certain circumstances that are not in the purview of this Committee,

but refusing to even appoint a special prosecutor. What do you recommend we do?

Mr. MILES. I think the problem, Madam Chairman, goes to the very basis of legislation enacted by the Congress. I spend about half of my life struggling through the Code of Federal Regulations, and when I do that, each time I read a bureaucratic rule of regulation, I go back and I try to look at the law from which that regulation is supposed to have been adopted, and the authority that is cited by the bureaucrats and in many, many cases, I can't find in the law.

What happens is that Congress naturally, because that is how the system is supposed to work, enacts legislation in broad strokes, and in order to get through the political process in Congress, the strokes are made even broader as the various sides make their input, and pretty soon you end up with a statute which is so broad that it can be interpreted to mean almost anything that a bureaucrat wants it to mean and that is exactly what is happening to us.

And I think the only way that we are ever going to rein this in and get back to the division of powers that the Founders envisioned is for Congress to be more specific in its legislation, and perhaps even to the point of Congress, when it enacts a law, adding a clause to the effect that this law shall not be interpreted as, and listing the things that you might fear that the bureaucrats might do that you definitely want to say that they shouldn't do.

Mrs. CUBIN. I think that is good advice. And, also, I want to support your statement about your research, having looked into how they get rules and regulations, based on the statutes and you wonder where they ever came from. On the law enforcement regulations that the BLM proposed and subsequently withdrew, our investigations indicated that not only did they base it on really obscure things in the statute, but then they based some of those authorities on regulations that they themselves had passed.

In the case of the bonding requirements, this Subcommittee asked for documents as to how that—they said that they had taken public input and we wanted to know every detail about how they actually arrived at that final rule, so we asked for documents, and they refused to provide them. The Chairman finally had to subpoena them, but in their refusal, basically, they said that they would give us the documents they wanted us to see so that they would have oversight of what documents we would see to have oversight of them. Isn't that them having oversight of themselves?

Mr. MILES. That is pretty circular reasoning, isn't it?

Mrs. CUBIN. Well, I have to move on. Mr. Lesperance, you sound like my husband. Sometimes people think he is a little bit radical, but I am going to tell you what. I think that you are exactly right where it is.

While I don't condone, and I doubt that you do, people taking the law into their own hands, as is happening around the Western States with the militias and so on, when we look at Waco and Ruby Ridge, we have to see how desperate people are and how far the Government has pushed on them to get them to be that desperate. What kind of a government has such desperation when people only want the rights that they have been guaranteed? What reception

do you get around when you talk about the things that you discussed here today and submitted in your written testimony?

Mr. LESPERANCE. Madam Chairman, I would like to call your attention to my statement and the attached lawsuits. There are two attached lawsuits. The first is the Truckee–Carson lawsuit and the second, which is about one-third of the way through the total document, is called United States District Court for the District of Nevada, United States of America, and Walker River Paiute Tribe versus Walker River Irrigation District, and if you will look on page 2 of that document, and for the next eight pages, you will see a list of names. I hope you see that.

Mrs. CUBIN. I noticed that last night.

Mr. LESPERANCE. There are 1,200 plus names in there and the list is not complete. I happen to have spent a number of years in the area and I know many of the people in both California and Nevada, and I have talked with some of these people very recently. These are honest people. These are people that have been born on these ranches, third, fourth, fifth and even sixth-generation people, and they are not going to leave real easy. But when you take the water away from those people, if they lose this suit, which is inconceivable to me, but if you do take the water away from those people, I cannot predict what they will do.

I know them, I know how they live, I know how they got to where they are at today, and they are not going to go down real easy. But it is interesting, I will throw another little wrinkle in here so you have a better understanding of how devious the bureaucracy is. I do not believe that the Justice Department and/or the Department of Interior really believes they can win this lawsuit, this fight, with the effort they are putting into it.

Coincidentally, last week, the Bureau of Land Management started a program in the Eureka Walker River offering to buy everybody's water rights. Now, that is after they have been subjected to this lawsuit, have already had to come up with their legal counsel, which is costing millions of dollars, and now the BLM is saying, well, you know, we will buy your water rights. That is a corrupt government, that is a corrupt bureaucracy and that is what has to be straightened out if this country is going to survive.

Mrs. CUBIN. It has been reported that Bruce Babbitt has stated, and I don't recall the convention, but that all of the water within the borders of the United States of America should belong to the Government of the United States of America.

Mr. LESPERANCE. He has made that statement. We here in Nevada still operate under the State and perhaps we are mistaken, feeling we still own the water.

Mrs. CUBIN. We do.

Mr. LESPERANCE. I am quite sure constitutionally, that is correct. But the other factor that you really need to understand is even though the Department of Interior may initiate a lawsuit, what happens next, the Department of Justice steps in. I have had the privilege of looking at eight Federal lawyers at one time. How possibly can anybody in this State survive an onslaught of that nature? We don't have the money. Nobody has that kind of money. The Department of Justice has as much money as they want.

Mrs. CUBIN. And as much time as you can pay them while you are paying your own attorney at the same time.

Mr. LESPERANCE. That is correct. It becomes very, very frustrating.

Mrs. CUBIN. Back to Assemblyman Carpenter. You talked about the constitutional resolution that was passed, I think you said it was passed by the legislature. What is the procedure on that? In Wyoming it has to be passed by two-thirds of the House and Senate and then in the next general election it has to be put on the ballot. What is the procedure in Nevada and where is that resolution?

Mr. CARPENTER. Thank you, Madam Chairman. The procedure in Nevada is it passes the legislature twice. It does not have to be two-thirds majority, just a simple majority passes the legislature twice and then it is put on the ballot, and the people vote on it. And as far as this constitutional amendment that I was talking about that gives the legislature the oversight or veto power over agency rulemaking, it did pass the people, was passed by the people in the last general election, and so now the State legislature does have that oversight power.

Mrs. CUBIN. And more States should do exactly what Nevada has done, I think. After the resolution you passed about the bonding regulations, did you hear from the Secretary or did you hear from any representatives of the Department of Interior?

Mr. CARPENTER. The only thing we heard was they were not going to change it, and they confided in our committee chairman that they were not going to change these regulations, and so that was the extent of their response, that, you know, so what, try to change them when you really don't have the authority to do it.

Mrs. CUBIN. In your face.

Mr. CARPENTER. That is right. And I think, though, that what these hearings bring out, in my mind, is that a number of years ago, we didn't think that the government was our enemy. We thought that the government was going to do right for us, that they were going to protect our properties and our right to make a living; that they really weren't our enemies. But we have seen, through the last number of years that there are other people out there that want to take our way of life away from us, for what reason, I don't know. But I think that we are finally, hopefully getting the message to the politicians who have it in their power to change these things, and I think with yourself and Congressman Gibbons and other people that we are finally making some headway and we are going to see, I hope in the next 15 years, a big rollback of what has happened in the last number of years.

Mrs. CUBIN. I can tell you firsthand that I have seen that in the Congress, and I know that it is hard, when the only news from Washington you get is the Eastern liberal media. A lot of times people out here in the country don't even know what we are talking about and the debates we are having and there are more than just Representative Gibbons and I that care about this and care about it very, very deeply and it is all of our obligation. We can't stop and we can't shut up. We have to keep talking about it and bringing this out into the light of day so that everyone can see it because I am going to tell you, people in the East do not believe it. They don't believe it when we tell them these things happen. We have

to prove it to them over and over. But that is why we are here and that is what we need to do.

You were right when you said, I think you were the one that said that even cutting the money at the Federal level doesn't work, and that is right. It doesn't work because we did that. We did that in the 104th Congress and you know what happened, we can't—well, we appropriated money to the BLM, Park Service, Forest Service, on and on and on, and where we said that they should spend money, they didn't. They spent it where they wanted to spend it. They moved it to programs that we didn't want to fund. Again, we are back to this lawless administration, when you have an administration that doesn't care about the law, and I am convinced the Clinton Administration, through and through, doesn't care about the law. Then they just spend the money where they want and you know what they did, they took money away from the services.

I am not certain about this, but like in permitting, and in areas that directly hurt our constituency, they even targeted at us, but nonetheless, we have to keep up the good fight. I had one last thing.

Mayor, this isn't a question, but I wanted to congratulate you on the activities that are going on in Elko. It was an all-American city or one of the best small towns to live in.

Mr. FRANZOIA. It was the best small town in America. It was based on a population criteria, so we have outgrown that now. I think it was under 17,000 or 15,000, population.

Mrs. CUBIN. Wyoming and Nevada have an awful lot in common. We have a city, Lander, Wyoming, that has been awarded one of the most livable cities in the country as well, and Assemblyman Carpenter said, which shocked me, Nevada is the most urban State in the Union. Wyoming is the most rural. We don't have one single metropolitan area in Wyoming, I am proud to say.

Back to the mayor, your cowboy poetry week is my favorite thing. I was not able to come for that, but Baxter Black is one of my favorite guys and if you all had time I could recite some cowboy poetry for you, but we have to check out of the hotel, so congratulations on what you do. Thank you for your testimony.

We are going to take a 10-minute break. We need to check out of our rooms and get packed up so we can leave so you can all go have a cup of coffee or whatever and we will reconvene in, let's make it 15 minutes.

[Recess.]

Mrs. CUBIN. The Subcommittee will please come to order. I would like to ask that the fourth and final panel come forward. Mr. Leo Drozdoff, Jack Blackwell and Jean Rivers-Council. Mr. Drozdoff—is that it?

Mr. DROZDOFF. Perfect.

Mrs. CUBIN. I am getting better—is a Bureau Chief of Mining, Regulation and Reclamation for the Nevada Division of Environmental Protection. And we will ask him to lead off with the testimony.

STATEMENT OF LEO DROZDOFF, BUREAU CHIEF, MINING REGULATION & RECLAMATION, NEVADA DIVISION OF ENVIRONMENTAL PROTECTION, NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

Mr. DROZDOFF. OK. Thank you very much. We have provided written testimony and what I would like to do in the interest of time, and to also be able to talk about some things that may have been raised in previous testimony, is just briefly summarize the written remarks, and go on from there.

One point I did want to make at the outset is the State of Nevada, Division of Environmental Protection, is a fully delegated State; that is, we have delegation agreements from the EPA on clean water, clean air, across the board. And others, we do a very good job. We have a very good relationship with EPA in administering those programs. We also administer programs pursuant to State law, as Representative Gibbons is aware and as Assemblyman Carpenter is aware.

We have very comprehensive State laws in the areas of groundwater protection, and in reclamation, that are not—do not replicate any Federal activity, but are purely State laws, and those laws then were used by agencies to craft what we consider to be very well-thought-out regulations, and the comment has been made a couple times today that Nevada is the leader in groundwater protection and reclamation and we are proud of that, as being part of that.

I also wanted to talk a little bit about our existing relationship with some of the Federal land management agencies that I am sitting here with today. Because of all of the negative activities that perhaps have gone on recently with the Bureau of Land Management, that sort of casts a dark light on what has been and still is what I consider to be a good relationship with the Federal land management agencies in the State of Nevada, both the State office and the district offices in Nevada, as well as the U.S. Forest Service.

We have lots of things that we work on, it is not a perfect system. You have heard some of the testimony today that there are areas that need to be improved, and we continue to work on that, but the fact is, the programs are in place, the communication is in place to get that done. We have good memorandums of agreement with both the BLM and with the Forest Service. We continually work to improve in those areas. We have worked on various initiatives with the BLM and the Forest Service in many areas, including a revegetation issue that, again, is timely.

We don't always agree, but we do communicate and I think the final product, when it is put together, is a good product. We work well with environmental groups and with industry, and just to show the States level of interest in that regard, we, we, being the State, actually will fund a BLM employee to act as a liaison. This is money that is paid to the State, which we then contract with the BLM, so that we can further improve communications in the areas of long-range issues as well as day-to-day activities as they come up, and, again, that is a concept that has been embraced by environmental groups and by industry.

And while all those are good things, I did want to quickly touch on two areas we do have some concerns with. You have heard lots of new testimony on the bonding rule and you would agree with a fair amount of that. We think the manner in which the bonding rule was passed was inappropriate and we believe some of the provisions contained therein were not well-conceived. Now, it must be said that the State of Nevada supports bonding on all public lands, but what we don't agree with is some of the areas, such as third-party engineering reviews and this water quality criteria.

Again, Nevada is a fully delegated State and has its own State programs for groundwater protection and we don't believe that is an appropriate area and we don't believe it was a well-conceived rule. And last, I wanted to touch on the overall 3809 regulation review. We have taken that matter very seriously. You have touched on that.

Our Governor has written a letter to the BLM, being quite candid on Nevada's concerns about that 3809 process. That is included in my testimony, and I think it speaks well to the issues that the NDEP and the Department of Minerals, as well as the administrative branch of government in Nevada believes. Now with that, I guess my time is up and I will close. I did want to touch on some things that were raised in testimony. If you would like me to wait, I can do that or I can briefly touch on some of them.

Mrs. CUBIN. Go ahead.

Mr. DROZDOFF. There was a great deal of talk, some talk, I suppose, on water quantity, and now we are the water quality folks at NDEP. The State engineer and the Division of Water Resources are the water quantity folks. I did have the opportunity to briefly speak with the State engineer, who was not able to attend, but did want me to mention a couple issues.

He wanted me to note in the Humboldt River Basin, 90 percent of the water discharged is either put back into the ground, beneficially used in the basin or substituted for other uses in the basins. One such notable example would be in the case of Lone Tree Mine; a pipeline was built to supply water to a power company and that enabled water, then, not to be pumped to supply the power company. He also wanted me to offer to provide his testimony, if you felt it was appropriate. He can do that, or if there were specific questions we can relate to him, I would be glad to do that for him.

I wanted to touch briefly, there was some mention about Jerritt Canyon and a Clean Water Act issue and I must say that I am not aware of a Clean Water Act issue at Jerritt Canyon. I will say this. We do periodically routinely meet with all members that—all members of the community. We also meet with various environmental groups routinely, and that issue has—a lot of issues have been raised, but that issue in terms of a Clean Water Act violation have not been raised yet. That is something that we will look into.

We do have some groundwater issues out at Jerritt Canyon that again we are managing. We have a remediation activity, and that is, again, what we consider to be a groundwater issue, and we are dealing with it. And I would like to just stress this point about Nevada's regulations. The good State regulations, coupled with good enforcement of Federal regulations has really, in our opinion, resulted in some of the tightest Clean Water Act regulations that

exist. We incorporate all Federal water quality standards, where appropriate, and we incorporate State standards for specific streams when they are necessary, and our permits are reflective of that, our permits—our operating permits that we issue can contain these same limitations, so I think they are very tight, but we would like to believe they are well-run, well-administered and we take pride in that. So with that, I will close.

[The statement of Mr. Drozdoff may be found at end of hearing.]

Mrs. CUBIN. Thank you very much. Next, I will call on Jack Blackwell, the Deputy Regional Forester, Intermountain Region, U.S. Forest Service. Mr. Blackwell.

STATEMENT OF JACK BLACKWELL, DEPUTY REGIONAL FORESTER, INTERMOUNTAIN REGION, U.S. FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Mr. BLACKWELL. Madam Chairman, Congressman Gibbons, my name is Jack Blackwell. I am Deputy Regional Forester for the Intermountain Region of the Forest Service. I am accompanied by Larry Gadt, the Forest Service National Director of Minerals. A summary of our statement is as follows.

For over 125 years, the mining industry has explored and developed locatable minerals underlying Federal lands, under provisions of the 1872 mining law. That mining law, and legislation since 1872, make public land available for mineral development. Under Forest Service regulations, operators are required to reclaim land to prevent or control damage to the environment so that existing problems with abandoned mines are not compounded. Before operations commenced, the Forest Service, in conjunction with operators, must establish and document in the plan of operations the reclamation standards for each site-specific activity.

When we receive a mining proposal, it is analyzed to determine if a plan of operations is necessary. If one is necessary, the plan is reviewed to determine if it contains the required information and what level of environmental analysis is needed. Within 30 days of receipt of a plan of operations, the district ranger informs the operator of the status of the plan. Once the plan is completed and a bond has been submitted for reclamation, the plan is approved. The Forest Service strives to process mining operation applications quickly, to accommodate the company schedule. For example, here in Elko County, the Jerritt Canyon mine expansion and the Dash project were permitted in less than 16 months.

Field units with the heaviest hardrock mining workloads have also been encouraging a regulatory review and update for a number of other issues. We are examining possible modification of the surface use regulations and have included this effort in the fiscal 1997 plan of work and that will be extended into fiscal 1998. The Forest Service is examining changes to address shortcomings in the areas of occupancy, notices of intent, plans of operation, reclamation, and bonding. This effort is being coordinated with the BLM, review of its surface management regulations. The joint agency goal is to have regulations as consistent as possible.

In managing the surface resource effects of operations, much work remains to remediate the effects of historical operations which have been abandoned. The Forest Service is working with

other agencies to identify and correct these problems. That completes the summary of our statement and we would be glad to answer any questions.

[The statement of Mr. Blackwell may be found at end of hearing.]

Mrs. CUBIN. Thank you very much. Next, we will call on Jean Rivers–Council, Associate State Director of the Nevada State Office of the Bureau of Land Management.

STATEMENT OF JEAN RIVERS-COUNCIL, ASSOCIATE STATE DIRECTOR, NEVADA STATE OFFICE, BUREAU OF LAND MANAGEMENT, U.S. DEPARTMENT OF THE INTERIOR

Ms. RIVERS–COUNCIL. Madam Chairwoman, Congressman Gibbons, I appreciate the opportunity to appear here today to discuss the status of permitting hardrock mining operations on the public lands managed by the Bureau of Land Management. The BLM regulates these operations pursuant to the general mining laws of the United States and the Federal Land Policy and Management Act. I provided the Subcommittee with copies of my full statement.

In the interest of time, I will deliver a summary statement. It is important to note that minerals production is only one of many resource issues for the BLM in Nevada. About 67 percent of the total land in Nevada is managed by the BLM. In addition, BLM Nevada has recorded over 756,000 mining claims, of which 135,000 are still active. More than half of all new claims filed annually are recorded in Nevada. About 67 percent of gold production in the Nation is from Nevada. That amounts to over 7 million ounces per year.

To meet the needs of industry, BLM and other regulatory agencies have worked intensively to reduce the time required to process notices and plans of operations. In the 1980's, BLM recognized the pace of processing these plans was unacceptable. We addressed our process and improved it. In the last 2 years, the BLM has developed more consistent and predictable technical guidelines. Even with the more complex plans of operation today, we have decreased review time. The basic Federal regulations under which we operate are found in 43 CFR 3800. One provision of these regulations relates to smaller exploration and mining operations on public lands. These are operations with cumulative surface disturbance of 5 acres or less. These operators are required to notify the BLM at least 15 calendar days prior to commencing operations. Operators that exceed 5 acres on BLM public land must have a plan of operation analyzed and approved by the BLM.

When the BLM processes exploration and mine plans and notices of operations, it must follow all of the numerous Federal laws. In recent years, Nevada production has escalated from about a half million ounces of gold per year in 1981 to over 7 million ounces in 1997. New production activity has shifted away from mining and shallow pits. The ores produced today are more expensive and challenging to process than those mined in the past. In many of the valleys of Nevada, the ore lies below the water table. To keep today's mines dry, water must be pumped at rates exceeding 30 to 50 gallons per minute.

This agency works hard to be a good neighbor. One way we do that is to work with the State and the Mineral Exploration and Mine Permitting Program. The BLM has reached major agree-

ments with the State of Nevada, including two with the Nevada Department of Conservation and Natural Resources. The first involved development of a program with the Department's Division of Environmental Protection for review of exploration and mining plans, reclamation bonding, inspections and reclamation requirements. Today, there is a joint review process in Nevada.

Under the second agreement, the BLM and the Nevada Division of Wildlife are cooperating in developing wildlife protection requirements, especially for tailings ponds and other mine ponds which contain chemicals used in mining operations. The BLM also works closely with the Nevada Division of Minerals regarding remediation of abandoned mine hazards.

Mining has occurred in Nevada for more than 140 years. During that time, many prospectors and miners abandoned sites without cleaning them up. The State is helping us with this problem. Last year more than 100 hazardous mine sites were identified and secured by the State. The Division of Minerals works with the mineral industry and the counties to make lands managed by the BLM safe once more.

The BLM does and will continue to, practice and use the best science to address any new emerging issues. This can be achieved only through cooperation with the State and with industry. The mutual goal is to provide more consistency and better predictability in the process. BLM's hardrock mining surface regulations date back to 1981.

Recent updates have included use and occupancy rules and acid mine drainage policy and hardrock mining regulations. Secretary Babbitt in January of this year directed the BLM to form a 3809 task force which would address shortcomings in the current surface regulations, incorporate BLM policies which were developed to supplement existing regulations and meet BLM's strategic plan of incorporating standards.

The task force has embarked on a scheduled 2-year effort to update the 3809 regulations. Issues to be addressed include eliminating or modifying the 5-acre threshold for notices, revising the definition of unnecessary and undue degradation, expanding environmental and reclamation requirements and clarifying casual use. Scoping meetings were held this spring throughout the country. We have made public our summaries of the comments at the scoping meetings.

I will conclude here. I believe I mentioned earlier I have submitted my full written statement for the record and I am prepared to answer any questions that you might have. I will try not to exceed my 5 minutes since I have a red light.

[The statement of Ms. Rivers–Council may be found at end of hearing.]

Mrs. CUBIN. Thank you very much. I appreciate that. Now, the Committee would like to welcome Larry Gadt. I had no idea that you would be here. I am delighted that you are. I don't want to put you on the spot, but you have heard bashing, including from me, not at you, but at the system and how it works with Washington making a one-size-fits-all policy. If you would like to just say anything to the Committee for the record, I would certainly love to have you do that.

STATEMENT OF LARRY O. GADT, DIRECTOR, MINERALS AND GEOLOGY MANAGEMENT, U.S. FOREST SERVICE

Mr. GADT. Thank you, Madam Chairman.

Mrs. CUBIN. And bashing is way too strong.

Mr. GADT. That's all right. I guess that I view the—not as much bashing, I guess, I didn't feel this morning. I heard a lot of good comments and I really appreciate that. In my visits to the field, I ask very simple questions of folks, be they local industry or our own employees of how are we doing and how are we working together and how are we getting our job done. With few exceptions, and there are very few, I hear nothing but glowing comments about our ability to work together with the industry to do the environmental job we are responsible for and at the same time facilitate removal of these resources.

To be perfectly honest with you, if I knew what the size was, if I had all that wisdom, I would not have a clue to know how to go about doing that and I don't know if I am answering your question, but I don't know what the right size is. In our case, we got input from our field to ask what different sizes they feel they need and we are still working with that, so I am not smart enough or wise enough in my professional background to determine that and that is the best I can do on answering that one.

Mrs. CUBIN. We are certainly glad that you came and it always helps to have people get outside the beltway and hear what happens out here.

Mr. GADT. Thank you.

Mrs. CUBIN. Representative Gibbons, would you like to begin questioning?

Mr. GIBBONS. Thank you. I would be happy to. Let me start with Mr. Blackwell, if I may. You mentioned in your testimony, Mr. Blackwell, that there is a historical trend over the years, up to 1981 regulations that are now in effect, that many abandoned mines have gone unreclaimed, or pose a serious health or safety hazard to the public. Who bears the responsibility today for the reclamation of those mined areas and those mines, as you foresee that?

Mr. BLACKWELL. Well, I am not an expert in the area and I will give a brief answer and perhaps Larry can elaborate, but determination of responsible parties on these abandoned mines is tricky and time-consuming and onerous business, and using the process, as I understand it, we have come up with who we believe are the responsible parties, and we use Superfund authorities and funding to try to fix these up. As you well know, it is an enormous problem all over the West, the abandoned mines and different environmental problems with them.

Mr. GIBBONS. When there is no direct responsibility to a previous mine occupant or previous mine operator, has the Superfund been able and adequate to address the issues that face you when you go to reclaim or improve these areas? Have the Superfund requirements permitted you to do that, or do we need, in Congress, to enact legislation that would allow the Superfund to more easily address these issues?

Mr. GADT. I will try to answer some of that. On the national forestland, we have not completed inventory yet but we have—at

present, we anticipate around 38,000 abandoned mine sites. A small percent of them would actually qualify for any funding from CERCLA, RCRA any other source of Federal funds. Also, a very small percent of them—actually, if we could identify the potential responsible parties, a very small percent of those actually fall in the category. So we have a very large percent of other areas that we need to have funding available and we are pursuing funding available to correct those.

Our 1998 budget that you all just enacted or are acting on includes funding to do some of that. I would like to add, though, the industry has been very cooperative with us in helping us to clean up these sites. Sometimes in existing operations, but, also, going into watersheds where we are trying to improve the overall quality of the drainage.

The Western Governors Association, we have a cooperative arrangement with them, so with the Western Governors, the companies, the source of the funds federally and so forth, we have and are pursuing an effort to correct some of these problems.

Mr. GIBBONS. Would you suggest, since you said the Superfund authority only applied to a very small percentage of these operations because of the current language in the law, that we should address the Superfund authority language to broaden its coverage so that that money, that vast sum of money that sits in that fund can be applied to these situations, would you recommend that?

Mr. GADT. You know, Congressman, I am not an authority on Superfund wording and language, and I would rather not comment on that right now and maybe do some staff work and get back to you if that would be all right.

Mr. GIBBONS. I would like to hear personally from you on that issue.

Mr. GADT. I will do that. Thank you.

[The information referred to may be found at end of hearing.]

Mr. GIBBONS. Ms. Rivers–Council, thank you, and I know you and I have chatted in the past and had an excellent working relationship and I know we will continue to do so. Let me say that, first of all, in addressing your comments about the need to revise the 3809 regulations, do you have a view that there is a concern within the agency about the increase in delays of permitting due to the changes that are going to be promoted in the changes to the 3809 regulations?

Ms. RIVERS–COUNCIL. Congressman, I am not certain that I could fully respond to whether the changes in the regulations will necessarily delay the permitting process. When I reflect back on the 1981 implementation of the surface mining regulations, we did make a commitment way back then to do a review. We have found, over the last dozen plus years, that the mining itself has become a little bit more complex. We are going deeper into the Earth, the mines are becoming bigger, but our partnerships are increasing. I can attest that over the last couple of years, the time our process to complete environmental impact statements takes, as an example, has certainly gone down.

Mr. GIBBONS. So you don't see any changes in the delays that would be required for these mining companies in terms of their permitting from any proposed changes that would be out there.

Ms. RIVERS–COUNCIL. I don't see that delays would necessarily occur.

Mr. GIBBONS. You mentioned shortcomings in the current 3809 regulations. Could you explain what you mean by shortcomings?

Ms. RIVERS–COUNCIL. An example of the shortcomings of the 3809 regulations, raised both within BLM and enternally by our customers, is the 5-acre threshold for requiring a plan of operation rather than a notice.

Mr. GIBBONS. So what you are saying to us is in these proposed rule changes, you expect to see an increase in the acreage for noticed operations, from 5 acres, say, to 20 or 25, something, you know, some increase.

Ms. RIVERS–COUNCIL. There is certainly some consideration being given to eliminate that rule altogether. It would certainly cut out the need for miners to notice the Bureau of Land Management when they are going to disturb five acres or less.

Mr. GIBBONS. We were just chatting about the fact if you eliminated that, then everybody would be under the planned operations then and certainly be required to have a bonding requirement under the planned operation, if that is your intent.

Ms. RIVERS–COUNCIL. That is a potential, certainly. But I believe, until we have been able to review all of the comments that came out of the scoping sessions, and we had over 1,800 comments, I don't believe we are prepared to say summarily that that is going to be the case.

Mr. GIBBONS. With the new 3809 regulations that you have got with regard to bonding, there is a requirement in there for the review process of the reclamation to include water, water quality standards being met. Now, let me ask this question. You would agree that that is in there?

Ms. RIVERS–COUNCIL. I would agree that there are references, very definitely.

Mr. GIBBONS. And the standards have to be met and determined before the bond can be released.

Ms. RIVERS–COUNCIL. Well, we are not trying to implement the standards. That comes under the purview of the State.

Mr. GIBBONS. I am not asking you to regulate the standard, just a determination has to be made that the standards are met before the bonding can be released; is that not true?

Ms. RIVERS–COUNCIL. Congressman, I would hesitate to give you a specific answer on that.

Mr. GIBBONS. Your opinion.

Ms. RIVERS–COUNCIL. I don't have an opinion until the scoping comments have been fully analyzed.

Mr. GIBBONS. This is on the current bonding requirements, not future. This is current bonding requirements that the BLM has already made a final ruling and put into implementation in March 1997, requiring water standards, water quality to be met before the bonding can be released. My question would be, if Dr. Myers' concerns about 30 years down the road problems will arise, at what point can a bonding permittee expect to see his bond released if he has paid into this sum his bond, satisfied and released, at what point do you expect a bondholder, a permittee, excuse me, to expect this to impact his operation?

Ms. RIVERS–COUNCIL. If I understand your question, you were asking at what point could the permittee expect to have their bond returned after the mine has closed.

Mr. GIBBONS. That is correct.

Ms. RIVERS–COUNCIL. Or the operation itself has. The anticipation would certainly be that upon full satisfaction among all the partners, the miner, the State, the Federal Government, BLM obviously included, that once that occurs, we would be able to return that bond money. Now, that can easily translate into a year to 2 to 3 years and currently it is up to about 3 years after the operation closes down.

Mr. GIBBONS. If an outside agency challenged the release of the bond, for example, the Sierra Club or something to the BLM and forced a complaint to be heard, saying 30 years down the road this could cause some irreparable damage, that we should not release that bond, would your agency then hold the bond until the 30-year period?

Ms. RIVERS–COUNCIL. I believe I would certainly have to go back and rely on my advisors in the office, my technical experts, on the exact definitions of how we would review that.

Mr. GIBBONS. Would you go do that for us and give us some feedback?

The BLM bonding regulations provide that 60 percent of a bond can be released if reclamation requirements are met for backfilling, regrading and stabilization of leach pads, heaps and tailings. The remaining 40 percent of a bond cannot be released until the disturbed area has been revegetated to establish a diverse, effective and permanent cover and until any effluent discharged from the area has met applicable effluent limitations and water quality standards for not less than 1 full year, without violations and without the necessity for additional treatment.

In Nevada, BLM is currently coordinating with the State of Nevada Division of Environmental Protection and with stakeholders to develop guidance to the industry regarding release criteria of the remaining 40 percent of the bond. Although the discussions are not complete, it appears that based on current experience, release of the bond will occur within reasonable timeframes, in full coordination with the State regulatory agencies.

Ms. RIVERS–COUNCIL. Absolutely. I would be happy to respond to that.

Mr. GIBBONS. Thank you. Thank you very much. Mr. Drozdoff, I hope I pronounced your name correctly and I apologize. Would the State of Nevada be able to achieve, in your opinion, its goals, environmental goals, with the industry, and the mining industry in particular, even if the 3809 regulations were not in effect?

In other words, if the State of Nevada in its environmental protection requirements, today, had the force and effect that they do, would they be able to achieve the same environmental goals without 3809 in existence?

Mr. DROZDOFF. I would probably say, no. Just because when the regulation—for example, with our reclamation regulations, I think the State legislature takes very seriously the notion of not duplicating activities, and if there was an activity that had already been prescribed in Federal regulations——

Mr. GIBBONS. Can you name one for us?

Mr. DROZDOFF. Well, one would be perhaps the 5-acre issue on public lands, because of the staffing needs and because, again, the reason for nonduplicating of efforts, the State legislature did not

want to have DEP do the same thing that the BLM was doing, so——

Mr. GIBBONS. On a noticed operation.

Mr. DROZDOFF. Exactly, right, so that would be an area.

Mr. GIBBONS. But noticed operations don't have the same impact nor the same usage or detriment as a planned operation would have.

Mr. DROZDOFF. Clearly, absolutely.

Mr. GIBBONS. Under a planned operation, let's assume the BLM removes the 5-acre requirement which would include you to have the responsibility for every operation. According to the BLM, that may be what they want to do is eliminate the 5-acre distinction, putting everybody in a planned operation. Would you say, in your opinion, that the State of Nevada has adequate laws to cover environmental protection and reclamation for any operation?

Mr. DROZDOFF. I suppose we feel very comfortable with our regulations that they exist and I am not an expert in 3809, so I am at a little bit of a disadvantage there because I don't know some of the nuances that may exist. Certainly, from our standpoint, the regulations that we have, both cross-medium, whether it is air, water, RCRA, we take pride in, we enforce, and we do a good job in regulating those activities.

Mr. GIBBONS. I would agree with you as well, so, thank you, Madam Chairman.

Mrs. CUBIN. Thank you. I think I will start with Mr. Blackwell. Will the Forest Service begin proposing new mining regulations after the BLM finishes with their process?

Mr. GADT. We are in the process now and we actually started with last November, soliciting input from our field units on what they felt were the needs, if any, regarding 228(a) regulations. Ours have been in place since 1974 and so we have received some input from our field units and we are in the process of looking at that now to determine what, if any, changes need to be made in order to address the field concerns. Did that answer your question?

Mrs. CUBIN. Yes, it did. One little caveat here then. I certainly hope, and I know the Forest Service would never do this, but the BLM did, in taking 5½-year old input off the shelf and then implementing that as a proposed rule, so I certainly hope the public will be taken into consideration before the rules are put out.

Mr. GADT. Our input today has been post January 1997. Actually, I think March and April, with I think recent validations as recently as like in August, I believe.

Mrs. CUBIN. Is that in-house input.

Mr. GADT. Yes, it is all in-house input at this point.

Mrs. CUBIN. But you will go out and do the appropriate public—the 60-day comment on the rules and so on.

Mr. GADT. Yes, right.

Mrs. CUBIN. I want to make sure you do plan to take public input before hand.

Mr. GADT. Yes.

Mrs. CUBIN. Great. That is all I need to know. I would like to—let me make sure. I have all these notes, I want to make sure I don't have anymore questions of Mr. Blackwell. I don't see any

right here. Mr. Drozdoff, would you agree with the statement that there is no problem implementing the new bonding rule?

Mr. DROZDOFF. No, I would not agree with that statement. They have clearly impacted operations and issues in Nevada, the Division of Minerals needed to—or felt it was very appropriate to actually get a new State law in place to expand the scope of some of its statutes to better accommodate issues that stem from the 3809 bonding rule.

Again, we have committed to work with the State office on some of the activities, or some of the needs now that stem from 3809, but they have clearly created more work for at least two State agencies, and so, no.

Mrs. CUBIN. I am not going to ask Ms. Rivers–Council that question because on June 19, 1997, Solicitor John Leshy testified to the Committee, quote, "The BLM tells me there is no problem implementing the new bonding rule," and I don't want to get you crosswise with anyone, but I just sort of sensed at the time maybe that was an overstatement.

In earlier testimony, Mr. Drozdoff, someone suggested, and I apologize, I can't remember who it was, that the State could enforce the Federal law in environment. Would you agree with that?

Mr. DROZDOFF. Only insofar as that Federal law has been delegated to the State.

Mrs. CUBIN. Assuming it were.

Mr. DROZDOFF. If we have a delegated program, for example, under the Clean Water Act and the MPDS program and there was a violation of a water quality standard from either a permitted or an unpermitted facility, the State would clearly have the ability, if it felt necessary, to take enforcement action on that.

Mrs. CUBIN. And you feel confident the State could recognize your inspection, and then could have the wherewithal under enforcement to maintain the high quality of the environment.

Mr. DROZDOFF. I do. You know, I think that the State, as I stated earlier, the State does take pride and it goes beyond DEP at this point. I think the State, whether it is the State legislatures or other State agencies, I think the State does take pride in what it does in the State and feels comfortable in its approach.

Mrs. CUBIN. Just very—you don't have to be specific about this, but, generally, are the Nevada State environmental laws as stringent as Federal laws?

Mr. DROZDOFF. I would say that they are at least as stringent. As I said, when it comes to federally delegated laws, we implement specific requirements of those laws and regulations into our programs, cross-media, and as we alluded to earlier, there are other areas that are not even covered under Federal law, such as groundwater protection and some of the specifics of our reclamation statutes, State statutes, that are also included, so I think that the State enforces, in the programs that it has delegation, the State enforces those Federal laws appropriately and, further, it enforces its State laws and regulations appropriately.

Mrs. CUBIN. You mentioned in your testimony the fact that a special levy on miners pays for a liaison person between the Nevada Department of Environmental Protection and the BLM to en-

sure that the Federal and State permitting is smooth. Would you elaborate on how that works and how it is working as well?

Mr. DROZDOFF. Sure I would. It is a relatively new program. It has been in place for about a year, and the liaison position serves many functions. It serves on large scale issues, such as reviewing our memorandum of understanding with the BLM and the Forest Service on ways to improve that, but as Ms. Rivers–Council said, there are other issues that continually have come up that require more immediate attention and they are specific on the ground issues.

At a specific mind-set, that may require that the two agencies communicate effectively and quickly, and all three of those areas, the liaison position has helped. Its genesis was—the position was a 1-year position that was in place. The BLM, the NDEP, environmental groups and industry, it seemed like it was doing a good—it was providing a good service. Certainly, I would think from the industry's perspective, they were able to talk to both agencies at one time, which was an improvement. And so I would say it has been a good success, and the point I guess I would make about that in relation to the entire 3809 process is if it is determined that 3809 needs to be reviewed, the area where some information would be—it would be interesting to hear whether having this sort of flexible approach, having the resources to fund liaison positions and having ability to put forth meaningful memorandums of understanding, I think, would go very far in everybody's role of protecting the environment, but at the same point, give everybody the tools to do it in a way that makes the most sense.

Mrs. CUBIN. One last thing. We certainly would welcome written testimony from the State engineer.

Mr. DROZDOFF. OK.

Mrs. CUBIN. I guess I can go ahead and cover this—well, never mind. Now, I would like to move to Ms. Rivers–Council, and first of all, congratulate you and you, Mr. Blackwell, on testimony from Mr. Drozdoff that said how you worked together, and that is absolutely the most important thing and it really is the only bit of good news I have really received coming out into the districts and into the States and I really do appreciate that and just encourage you to keep up that level of cooperation in working with the local people, the companies and the State governments.

You mentioned the USGS' efforts to study the hydrology in the Humboldt Basin. How does this effect differ from Dr. Myers' work, the Great Basin Mine Watch?

Ms. RIVERS–COUNCIL. I really can't respond to how Dr. Myers' work differs or has similarities to what the USGS is doing in concert with other partners, universities, industry. I really cannot speak to that at all, Congresswoman.

Mrs. CUBIN. That is fine. Let me ask you this question, then. What do you think of the concept that if the Nevada State engineer does not interpret Nevada environmental laws, water laws appropriately, that the BLM should step in and enforce those laws.

Ms. RIVERS–COUNCIL. I am not sure I understand if you are asking me for an opinion or if something has been stated in that regard.

Mrs. CUBIN. And this certainly, I want to be fair to Dr. Myers, so if he hears something here he disagrees with, I encourage you to send in your written response afterwards, but after his testimony, I asked him if my understanding was correct, that he would suggest that if the Nevada State engineer was not interpreting Nevada water law or environmental law correctly, or appropriately, that the BLM should step in and do that, and you heard his answer.

Ms. RIVERS–COUNCIL. I do remember the question now that I have heard you ask it again. I guess I have not even considered that the State water engineer could not interpret appropriately. We do work so closely together, the BLM and the State, and our relationships are intact in such a way that if there are concerns or disagreements, we are able to at least sit down and try to talk through what those issues are. It would be very difficult for me to even envision that we would have to necessarily step in over the water engineer.

Mrs. CUBIN. Thank you. Congress did the 2-acre exemption under Smacker in the late 1980's because there was evidence that—when I say "did in," I mean they eliminated it. There was evidence that they were stringing—that some coal miners in Appalachian, not Wyoming, were stringing some of those 1.9-acre sections and so they took that back.

Do you have any fear that if the 5-acre exemption was eliminated, I mean, I have fear that what Representative Gibbons talked about might happen. Do you have any opinion on what impact that stringing together could have with the 1.9-acre operations?

Ms. RIVERS–COUNCIL. I would hesitate to try to compare the mining laws with coal mining because, No. 1, I know very, very little about coal mining and probably just a fraction more on mining activities. I believe that Secretary Babbitt's intent is to fully scope out the impacts of either eliminating the 5-acre threshold or maintaining it.

Mrs. CUBIN. So that wouldn't fit at all, then. Everyone would just be in operation.

Ms. RIVERS–COUNCIL. I think there are a couple of possibilities. It could remain that it is a notice issue or it could become a full plan kind of an issue, or it could be considered along with basic surface use, and that is one of the elements of the scoping that is being reviewed, which gets into casual use, and that is basic surface disturbance.

Mrs. CUBIN. Thank you. I don't have any more questions. Just a statement that I am delighted to see a woman in your position because, frankly, sorry guys, we need a lot more women.

Ms. RIVERS–COUNCIL. Thank you. I agree with you 100 percent.

Mrs. CUBIN. This will conclude the official part of the—not the official, but the testimonial part of the hearing. I want to say one thing. I know that there are people here and people who wish they could be here who wanted to be able to testify in front of the Committee, and Jim wanted to make this statement.

Mr. GIBBONS. I had it all written out.

Mrs. CUBIN. This is his statement. He is the guy here, he can do it.

Mr. GIBBONS. I just wanted to offer, Madam Chairman, because of the limited time here today and the number of witnesses who wanted to testify who had information that they thought would be pertinent to these hearings, that we offer them an opportunity to submit in writing, and I would be happy to act as the receiver of that information to ensure that it got to the Committee and into the public record, any comments that they wanted to make, that they feel should be a part of the public record here today. So I would ask unanimous consent from the Committee that we have an opportunity to submit written testimony from those who were not provided an opportunity today, within a timeframe and I would limit that to about a 3-week period.

Mrs. CUBIN. Actually, we don't even probably need unanimous consent. That is the policy of this Subcommittee, although the 3-week period that you request is longer than is typical. Usually we have a 10-day period before we close a record, but I am certainly happy to grant a 3-week period where anyone can send written testimony or comments on testimony that you may have heard and you can send that either to Representative Gibbons or directly to the Committee, which is generally the way that works, so thank you all.

And the clerk, who is the real boss of this place, says be sure to include that those comments should say for the public record when they are submitted. So thank you all very much for your attendance here today and your concern about what is going on in the State and the country and it has been my pleasure to be here in Nevada with you and I do certainly hope to return.

[Whereupon, at 1:10 p.m., the Subcommittee was adjourned.]

[Additional material submitted for the record follows.]

STATEMENT OF BILL W. UPTON, PLACER DOME U.S. INC.

My name is Bill Upton. I am the Manager of Environmental Affairs for Placer Dome U.S. Inc. (PDUS). In this capacity, I have direct and oversight permitting responsibilities for PDUS. Placer Dome U.S. Inc. operates three large gold mines in the United States (two in Nevada and one in Montana) and conducts extensive mineral exploration throughout the west including Alaska. Our United States operations employ a total of 955 people. We employ people in Nevada, Montana, Alaska and Kentucky.

Placer Dome U.S. Inc. has a long history of permitting and operating on public land in Nevada and Montana. Our most recent permitting experience is the expansion of our existing mining operations. In Nevada, Cortez Gold Mines began operations in 1969 and is located primarily on public land administered by the BLM and Bald Mountain Mine began operations in 1981 and is located exclusively on BLM administered lands. Our Golden Sunlight Mine in Montana began operations in 1981 and is primarily located on private land but also operates on some BLM administered land.

All of our operations are permitted under the requirements of 43 CFR 3809 and have undergone extensive environmental reviews pursuant to the National Environmental Policy Act (NEPA). Permitting under 3809 and NEPA has been ongoing at Cortez Gold Mines since 1990. The BLM completed their first Environmental Impact Statement for Cortez in 1993. Subsequent discoveries led to the permitting of our Crescent Pit and preparation of another EIS for our Pipeline Pit and No. 2 Mill Expansion. The BLM is currently completing an Environmental Impact Statement for the most recent Cortez Plan of Operations, "The 1996 Amendment to the Pipeline Plan of Operations, for the South Pipeline Project," which was submitted in September 1996.

In 1993 PDUS acquired the Alligator Ridge Mine, which was originally permitted under 3809 in 1981 by another operator, and merged it with our nearby Bald Mountain Mine operations which began commercial scale heap leaching operations in 1985. The BLM completed an EIS for the expansion of Bald Mountain Mine in 1995 and most recently permitted Bald Mountain's LJ Ridge expansion. In 1993 Bald Mountain mine received the Nevada Governors Award for outstanding reclamation and just this year PDUS received the BLM National "Health of the Land Award" for our reclamation efforts conducted at the Alligator Ridge Mine.

At Golden Sunlight in Montana initial mine development was permitted in 1981 under the Montana Mining and Mineral Policy Act and the Montana Environmental Policy Act. In 1995 the mine submitted an application to expand operations and the Montana Department of Environmental Quality as the lead agency and the BLM as a cooperating agency are completing an EIS for the expansion.

Nevada and Montana have primacy for permit programs required by the Resource Conservation and Recovery, Clean Water, and the Clean Air Acts. In addition both states have regulations requiring the reclamation of lands disturbed by mining. Each PDUS mining operation has obtained and must comply with the requirements of these various state and Federal permits as well.

PDUS supports reasonable surface management and permitting regulations for our operations on both public and private lands. Based on our experience with permitting mining activities on public lands in two different states, we believe the current Federal permitting requirements adequately protect public lands and that any further Federal permitting requirements or regulation would be of little benefit and would only duplicate existing State programs and complicate the excellent State and Federal permitting and regulatory programs in these states.

The remainder of my testimony will center on the BLM's review of possible changes to their surface management regulations for mineral operations under 43 CFR 3809. PDUS had the opportunity to tour several members of the BLM Task Force conducting this review at our Pipeline Project in April and at Golden Sunlight in early September. The Task Force saw first hand how many of the issues they are concerned with in 3809 are being managed effectively on the ground under their current regulations and the strong State and Federal regulatory programs in both states.

For example at Cortez they saw Notice Level exploration drilling operations and the controls incorporated in these operations to prevent unnecessary and undue degradation. They walked over areas where similar activities had been conducted the season before and which had already been reclaimed and which were nearly indistinguishable from the adjacent undisturbed land. They saw the comparatively low density and intensity of disturbance typical of this activity. We explained to them how important Notice Level exploration is to our long term planning and survival, how it provides the opportunity to gain timely access to prospective areas to further

assess their mineral potential before investing the enormous amount of time and money required to permit Plan Level disturbance (greater than 5 acres) under 3809.

At Golden Sunlight the details of their steep slope reclamation plan including a sophisticated soil cover, revegetation emphasizing the establishment of native plant species and comprehensive reclamation monitoring program were observed. The Task Force observed the importance of incorporating site specific conditions such as topography, soils and precipitation into the reclamation plan and how this had been accomplished through the existing State and Federal permitting program in Montana. They also saw the distinct differences in site conditions between Golden Sunlight and Cortez. Unlike many other industries mining can only occur where the resource is located. The contrast in site conditions between Golden Sunlight and Cortez and the resulting differences in their reclamation plans are a good example of why "one size fits all" performance standards would be inappropriate for hard rock mining given the wide variety of site conditions within which it can occur.

Pit backfilling including the enormous expense in dollars and resources to accomplish it, the potential adverse environmental impacts associated with it and the loss in potential mineable resources it would result in were discussed at both operations with the Task Force. The Task Force learned first hand how this issue was included in the alternative analysis during the permitting of both operations and therefore is already receiving detailed evaluation as part of existing State and Federal permitting requirements.

Most importantly the Task Force saw how permitting and regulation of hard rock mining is being effectively coordinated with State Government in both Nevada and Montana. They saw how the permitting role of these States on issues concerning air quality and water quality and quantity is being coordinated with the BLM and effectively carried out in a manner protective of public lands.

We took the opportunity while the Task Force was touring our mines to emphasize that while they were considering revisions to their 3809 regulations there were many other new or pending state and Federal regulatory proposals which individually and collectively would have significant affect on our operations and our industry in general. The most important of these new and pending rulemakings include the following: EPA's addition of hard rock mining to the list of industries covered by the Toxic Release Inventory requirements, new particulate standards for regulating dust, proposed regional haze regulations, efforts to possibly narrow or eliminate the Bevill Amendment, and proposed Hard Rock Mining Framework, and the new BLM bonding requirements. We urged the Task Force to consider these recent or pending regulatory changes as part of their review.

In summary PDUS believes, as we showed and explained to the BLM 3809 Task Force, the existing 3809 regulations are working to protect public lands. As new and expanded mining methods and operations begin the current 3809 regulations complemented by strong state regulatory programs have provided for and will continue to provide for the adequate protection of public lands. Contrary to those who oppose mining or would support additional regulatory controls on our operations, we have not seen any evidence that additional regulation is warranted. The examples I've provided from our operations in Nevada and Montana are testimony to the fact that current regulations are comprehensive and when properly implemented in coordination with state programs adequately protect public, as well as, private lands.

I want to thank you for the opportunity to address this Committee and will do my best to answer any questions.

STATEMENT OF EVERETT E. GUSTIN

Madam Chairman, Honorable Members:

Welcome to Elko. I sincerely appreciate your willingness to conduct this oversight hearing on this most vital issue. More importantly, that you are reaching out for constituent input is very encouraging.

Having been involved in the mining industry in the Western United States for some twenty-seven years in several different capacities ranging from tramp miner to superintendent of mining at two large operations, to mine claim holder, to owner of an independent contracting business serving mining, I've been afforded many different perspectives on the evolution of the regulatory regime and political and populist perceptions of the value of mining in modern day life in this country.

But how these perceptions and attitudes interface with reality and legality is the subject at hand today. The current effort to rewrite through administrative fiat mining rules and regulations that have taken over one hundred and thirty years to evolve and be refined is at best, the height of bureaucratic arrogance and at worst,

a crude, misdirected and illegal power play that simply cannot be tolerated by Congress, the states, the courts or the people of this country.

Stepping away from generalities and moving into specifics, I offer the following for your consideration:

Why are we bringing forth words here today to our duly elected representatives asking them to rein in the activities of a government employee run wild? An appointee within whose purported purview it is, to write the regulations, implement the rules, and review and adjudicate decisions concerning basic individual rights violate the separation of powers doctrine. The western United States "subject" of this medieval realm, who thought he owned the possessory title in mining, grazing, water or agricultural rights, and the rights to make improvements on such, is dragged through a kangaroo gathering called the court of administrative appeals, where the legislative, executive and judicial branches have been rolled into one easy instrument of rule without recourse.

And what is the alleged mechanism justifying this complete bypass of our system of checks and balances and the separation of powers?: The proprietary interest of the Federal Government in 87 percent of the State of Nevada. The very Federal Government of whose mandates include fairness and equality between the States and of the Bill of Rights for our individual citizens. Where did we go wrong? How many people in the State of Nevada and the other western States are chained to the arbitrary rule of appointed and, anointed by some, administrative henchmen such as the Secretary of the Interior? A position now apparently on a historically increasing momentum with the inclination to assign itself police powers, ignore Federal law attempting to regulate itself, i.e. the Administrative Procedures Act, and strip American Citizens of their Bill of Rights when engaging in activity out on the land that is purported to "belong to all of us."

Justice Scalia writing for the majority in the June 27, 1997, Supreme Court case Printz vs U.S., instructed us: "The separation of the two sovereign spheres is one of the Constitution's structural protections of liberty. Just as the separation and independence of the coordinate branches of the Federal Government serve to prevent the accumulation of excessive power in any one branch, a healthy balance of power between the States and the Federal Government will reduce the risk of tyranny and abuse from either front."

To quote further: "In the compound republic of America, the power surrendered by the people is first divided between two distinct governments, and then the portion allotted to each subdivided among distinct and separate departments. Hence a double security arises to the rights of the people . . ." and "Federal commandeering of State governments is such a novel phenomenon that this Court's first experience with it did not occur until the 1970's when the E.P.A. promulgated regulations requiring states to prescribe auto emission testing . . . and on this issue, the Courts of Appeals for the Fourth and Ninth Circuits invalidated the regulations on statutory grounds in order to avoid what they perceived to be grave constitutional issues. The District of Columbia Circuit invalidated the regulations on both Constitutional and statutory grounds. After the Supreme Court granted certiorari to review statutory and constitutional validity of the regulation; the Government declined to defend them and instead rescinded some and conceded the invalidity of those that remained. . . ."

And in conclusion, he wrote . . .

"We held in New York that Congress cannot compel the States to enact or enforce a Federal regulatory program. Today we hold that Congress cannot circumvent that prohibition by conscripting that State's officers directly. The Federal Government may neither issue directives requiring the States to address particular problems, nor command the States' officers, or those of their political subdivisions, to administer or enforce a Federal regulatory program. It matters not whether policymaking is involved, and no case by case weighing of the burdens or benefits is necessary; such commands are fundamentally incompatible with our constitutional system of dual sovereignty. Accordingly, the judgment of the Court of Appeals for the Ninth Circuit is reversed."

I'm certain that the Honorable Members here today are familiar with and understand the intent of the court's instruction. So, I ask you today, are Members of Congress ready to tackle this issue politically and legally or will the burden fall to the directly affected parties yet again?

Mining is America's financial backbone. The Mining Law is the last great vestige of acquiring proprietary interest by common law principle, mixing sweat with soil to earn equity. Mining has made America strong without subsidy.

I've witnessed 70 percent of the mining claims be regulated and taxed out of business in the last several years. I've experienced a 40 percent reduction in my personal business this year because of an illegal bonding rule implementation. Mining

has been under an escalating P.R. assault for the past several years. We try to respond with reason and logic and compliance and what does it get us? More assault, more restrictions. I've personally traveled to countless meetings, raised funds for lawsuits on behalf of mining, been personally harassed for becoming politically active and openly advocating for mining. Many others have made these and other sacrifices, but we are losing the war. I encourage you to legislate, leverage funding and even litigate to bring this insanity to an abrupt halt. There is nothing to be gained by allowing the 3809 rewrite to advance as proposed, and everything to be lost.

You have either heard or will hear from others today that the mining industry in Nevada does an excellent job under the current statutory framework. No notable shortcomings are evident. I assure you that an industry already suffering under falling commodity prices, over-regulation, severely shaken stock market confidence and severely restricted access to prime exploration land will have no alternative but to look elsewhere. They will continue to take their money, expertise and many jobs with them.

I understand the difficulties you face in Congress from a political and "numbers game" standpoint. Perhaps a challenge to this action on constitutional grounds would be more productive for us all. The Supreme Court seems to agree.

The states are and can continue to be capable of enforcing regulations to ensure environmentally responsible mining activity. Please pave the way to allow that to happen.

Thank you for the opportunity to present my views.

STATEMENT OF ROYCE L. HACKWORTH, CHAIRMAN, ELKO COUNTY COMMISSION

Madam Chairman and Subcommittee Members on Energy and Mineral Resources, I am Royce L. Hackworth, Chairman of the Elko County Commission and owner of Hackworth Drilling Inc.

I want to welcome you to Elko the county seat of Elko County. I appreciate this Subcommittee coming to the people and area where the revision of the 3809 regulations will effect. It shows the mining industry, the residents of Elko County and the United States the willingness and concern you have in getting the facts on whether the BLM needs to rewrite the 3809 regulations.

Elko County is 10,900,000 acres in size, yet only 28 percent of it is under private ownership. The other approximately 72 percent of the county is Public Lands under Federal Management. On the public lands in Elko County the mining industry does explore for and find many valuable mineral deposits, such as gold, silver, copper, barite bentonite and gypsum just to name a few. The mining industry creates many good paying jobs in the exploration of and development of these resources. On average the industry pays in excess of $38,000 per year plus benefits in the jobs it creates. The jobs that are created employ people with PhD's all the way down to those who did not complete high school. The mining industry creates good paying jobs for men and women alike. These high paying jobs do not make their employees depend on state and Federal subsidized housing, food programs, health care programs to live the American Dream. In fact the industry and their employees pay taxes for those who depend upon state and Federal programs just to live.

My concern is the change in attitude toward the mining industry by the Federal agencies by the implementation on undue or excessive regulations. What troubles me is the method and reasoning the BLM has used in deciding ehange the 3809 regulations. I do not believe nor will I accept the Secretary of the Interior haviing the power to circumvent the NEPA process and Congress in changing the 3809 regulations. The BLM does not clearly define a purpose and need along with a definitive and specific proposed action for public scoping as NEPA regulations require that every EIS "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed actions." 40 CFR 1502.13. When the secretary makes a statement (in his letter of January 6, 1997) that "It is plainly no longer in the public interest to wait for Congress to enact legislation . . ." I fear for the future of our country. Nor the framers of our Constitution or you as duly elected Members of Congress would or should believe that any Federal agency could obtain or try to circumvent the powers given to Congress. The 3809 regulations are not an impending emergency to our national security. So why should the Secretary be permitted not to follow the normal NEPA process or circumvent Congressional wisdom.

The Federal public land agencies cannot nor should not be given unlimited ability to create regulations without Congressional oversight. Let me give you a couple of examples of regulations run amuck by the Federal Land agencies in our county.

1. Here in Elko County, U.S. Forest Service employees of the Humboldt–Toiyabe National Forest, are protected by agency regulations that prohibit them from being subpoenaed to testify before a grand jury. A classic example of a employee being immune from the laws that every citizen of the United States has to abide by.

2. Where logic does not work when it comes to Federal land managers just following the regulations they are in charge of—Jarbidge Community Cemetery. Elko County in trying to obtain a one-acre addition to expand the current cemetery. The USFS comes back to the county with a 20 year lease for the one acre parcel. The county is in a dilemma. We do not know whether to rename the cemetery the Jarbidge Community Time Share Cemetery or the Jarbidge–Lazarus Cemetery. With the current boldness of the Federal Land Agencies in creating new regulations, I feel they believe, they have been granted a higher power of authority. However, I do not believe they will be able to raise the dead every 20 years to renew their cemetery lease.

3. This year the BLM enacted new bonding requirements for claim holders on the public lands without following the NEPA process correctly. This is just putting more nails in coffin for mining activity in the United States. We have already seen a 70 percent reduction in claim holders when the $100 holding fee per claim was enacted. By not encouraging people and companies to look for mineral discovery here at home we are driving the mining industry outside of our country with good paying jobs.

I am here today as a County Commissioner asking you to please stop the BLM from enacting undue regulations on the mining industry. The current regulations are being handled by the states and current Federal law. Please use what ever power you have to curtail the Secretary of the Interior for not following the true NEPA process in creating regulations. Also, I am asking you to revoke the newly enacted BLM bonding regulation and have the bonding regulations go through a true NEPA process that defines the purpose and needs in the way the law intended it to be enacted. In the State of Nevada we have a comprehensive regulatory environment to protect the citizens and the lands in our state.

I thank you for the opportunity to make this testimony.

STATEMENT OF ZANE STANLEY MILES, CHIEF DEPUTY, EUREKA COUNTY DISTRICT ATTORNEY

Chairman Cubin and Members of the Subcommittee:

My name is Zane Stanley Miles. I am a member of the Nevada State Bar, currently serving as deputy district attorney of Eureka County, the leading county in the United States for the production of gold. I am here representing the district attorney's office and Eureka County. My office and Eureka County government are grateful to the Committee for its decision to come to Gold Country, U.S.A., to hear our comments on proposed revisions to hardrock mining regulations.

My qualifications to give testimony before you today are based upon my extensive experience in and observing local government in Nevada, California, Colorado and Washington State. During the past 20 years I have served as a district attorney or deputy district attorney in three Nevada mining and ranching counties and as public defender for Elko County where we meet today. Previously, I was the editor of daily newspapers in four different states, including two dailies in Nevada, and served for some years as state editor and business editor of the old *Nevada State Journal* in Reno. I don't consider myself an academic expert, but I do know from practical experience how local government works and should work. And I do know a lot about rural Nevada and its economy.

There are many other persons scheduled to testify today who are far better qualified than I am to discuss technical mining matters. Therefore, our testimony will be concerned primarily with the *LEGAL* effects of the regulations proposed by the Department of the Interior.

It is our belief that there are no legal benefits—and that there are substantial legal detriments—to be found in the proposed regulations. When subjected to a cost/benefit analysis, the proposals fall short of providing any rationale for their adoption. The reasons for our belief are set forth below.

I—THE MINING LAWS OF 1866 AND 1873 HAVE WORKED FOR 125 YEARS. TODAY, THE LAWS HAVE BEEN GUTTED BY INTERIOR'S BUREAUCRACY.

Congress in 1866 and 1873 enacted legislation intended to further and encourage development and use of the mineral resources of the Western territories. Those Acts and other laws effectively severed mineral rights from the basic fee estate, and authorized the public to appropriate and develop the minerals. Some authorization

(patenting) was expressly spelled out in the statutes; the laws also generally recognized the Western laws and custom of prior appropriation to beneficial use (unpatented claims).

Subject to *bonanza* and *borrasca,* boom and bust, mining prospered in the West for a century. The majesty, the greatness of the Congressional scheme was that the Western mineral lodes were available to anyone willing to tramp the hills and look for color. The resources were not solely for big business, they benefited the little guy as well.

For years and years the small miner and prospector could protect his interest in an unpatented claim by doing a small amount of "assessment work" each year. Thus he could hold onto a prospect until he could raise cash for development, or sell the claim to a larger mining company which had the financial resources to turn a claim into a property with a positive economic yield. In some cases it requires expenditure of millions, even billions, of dollars to convert a hole in the ground into a cash cow.

A few years ago the bureaucrats in the Department of the Interior decided that "assessment work" was environmentally unsound. Instead, Interior decreed that an annual cash fee must be paid for every unpatented claim. The result of that ill-advised decision was to drive the small, cash-starved miners and prospectors off their claims. They may have been able to finance the required assessment work each year, or do it themselves, but most of them could not come up with $200 or $100 per year per claim. They were forced to forfeit claims, instead of waiting out economic conditions for the proper time to develop.

Ironically, almost all of the forfeited claims in Nevada have been taken up by the big mining companies, the very companies that Secretary of Interior Babbitt claims are reaping unwarranted profits. I don't agree with the Secretary's analysis, and Eureka County is pleased as punch to be the host county for giant operations such as Barrick, Newmont and Homestake. We admire their ability to marshal the billions of dollars in resources necessary to develop disseminated gold prospects.

But it is a pity that the big operators no longer depend on the small miner and prospector to find mineral resources. And most of the blame for that is chargeable directly to Secretary Babbitt.

Let me tell you a brief, illustrative story about former clients of mine. They're dead now, and I won't give you any names, although a lot of the people in this room will recognize the facts. The story actually is pretty well known in our area.

He was a small miner and prospector all his life. He and his wife struggled, sometimes in abject poverty. Things never came together for them, but they did stake some promising claims. They did the annual assessment work, often themselves with pick and shovel, to maintain possession. As time passed, she was incapacitated with advanced diabetes; he became deaf and his physical strength deteriorated.

Finally, they were able to sell some 75 claims to one of the big mining companies in a deal that would have paid them millions over an eight-year span. Life had passed them by, however. They were able to buy a new car before he collapsed and died from a massive heart attack; she died not long after.

I wish my clients had been able to enjoy more of the fruits of their labors, but at least they received some benefit. Remember, they were able to keep their claims because they could satisfy the assessment requirements with manual labor. Just a few years later, and they would have lost those 75 claims because they would not have had the money to pay the annual fees imposed by Secretary Babbitt. The big mining company which paid several million dollars for those claims could have simply top-filed and waited until my clients forfeited, picking up the claims for next to nothing. Naturally, in light of management's responsibility to the shareholders, it would have done so rather than paying my clients several million dollars.

Perhaps Secretary Babbitt isn't evil; maybe he is only an example of the doctrine of unintended consequences. But his policy of requiring annual fees instead of assessment work has deprived hundreds of small prospectors in Nevada, thousands throughout the West, of the benefit of their labors, of the prospect of riches. And that was done by bureaucratic fiat, not after considered, measured debate in Congress.

The Mining Laws of 1866 and 1872 worked, and worked well, until the Department of the Interior came under the control of a group of well-intentioned but ill-informed Secretary and bureaucrats who have imposed adverse regulations without approval of Congress. It is up to the Congress of the United States to take back lawmaking power from the bureaucrats, and revest that precious authority in the elected representatives of the people.

There is a place, more than that, there is a need, in development of the mineral resources of the West for both the small prospector and the mega-corporation. Congress should insure that there is room for both.

II—STATE AND LOCAL GOVERNMENT ARE CAPABLE OF ENFORCING MINING REGULATIONS; THERE IS NO NEED FOR EXTENSIVE FEDERAL ACTION.

Perhaps the most disturbing current trend in the Department of Interior is the apparent belief that only the bureaucracy in Washington, DC, knows what is best. The bureaucrats regularly ignore local government, just as they regularly ignore the Congress of the United States. It is appalling that Secretary Babbitt can declare that, since Congress has chosen not to act on some of his pet projects, that he'll impose his beliefs anyhow by adoption of bureaucratic rules and regulations.

On a state and local level, the State of Nevada and Nevada's mining counties have an excellent record of commonsense enforcement of environmental and other controls on the mining industry. Our enforcement is thoughtful, unbiased, complete, effective, and accomplished with due regard for the benefits resulting from mineral development.

From our viewpoint, certain things aren't really worth worrying about. A good example is Secretary Babbitt's new regulation which requires bonding for reclamation of areas of disturbance of only five acres.

Nevada's land area is 110,000 square miles, 640 acres per square mile. Perhaps a tenth of that area has mineral potential. Far less than a tenth of that tenth (1 percent of our total area) ever will be subject to surface disturbance. Five-acre mine sites just don't amount to much in the greater scheme of things. Imposing bonding requirements on five-acre sites simply serves to impoverish the small, cash-starved miner and prospector who is struggling to develop a prospect.

However, if Congress in its wisdom were to decree that all environmental rules be applied to such small sites, the Nevada Division of Minerals and the local District Attorneys would enforce the laws. We've done so in the past in other contexts. I know of important mines in Nevada which have been prosecuted by the local District Attorney for violation of the Migratory Bird Act or the Endangered Species Act. Some of us may not think much of some of those laws, but as long as they are on the books, we'll do our job.

Generally, in Nevada, our Legislature has seen fit to authorize state agencies to contract with the Federal Government to enforce such laws. It's part of our frontier heritage. If it has to be done, we'd rather do it ourselves. We still insist that the phrase, "I'm from the Federal Government and I'm here to help you"! is an oxymoron. So, our Nevada Division of Environmental Protection enforces Federal environmental law; our Division of Mines enforces Federal mining laws; our Department of Wildlife enforces Federal migratory bird laws and endangered species laws.

And in all of those cases, the office of the local District Attorney is charged with the duty of prosecution after the state offices have completed their investigation of alleged irregularities. Only in very limited circumstances does our Nevada Attorney General have the authority to intervene in such matters.

In Nevada, we believe that laws should be enforced by the political entity closest to the people, county government through its district attorneys. We believe that local enforcement is much more acceptable to the public than enforcement emanating from some bureaucrat's office in Washington. The imposition of regulations AND the imposition of enforcement from above is antithetical to the American experience. We don't need national police forces. Unfortunately, in the past 30 years power-hungry Federal bureaucrats have moved in that direction.

Our local District Attorneys prosecute even unpopular laws without fear of favor. An example:

In one of Nevada's mining counties a few years ago a couple of migratory birds managed to get inside the netting which a mine had erected to keep birds and animals out of a cyanide-laden pond. The mining company had gone to considerable expense to comply with the applicable Federal laws. The exploring birds died, of course. The Nevada Division of Wildlife investigated, and submitted the facts to the District Attorney. The District Attorney, although the decision certainly was unpopular with mining interests, prosecuted and obtained a very substantial fine in settlement. I believe it was $50,000, or $25,000 per bird. The exact amount isn't important. What is important is that the state and local authorities handled the matter, expeditiously and efficiently, without any need for recourse to the Federal courts.

If I can make any points to you today, it would be these two:

(1) Congress must take its law-making powers more seriously, and sharply limit the power of unelected bureaucrats to make rules and regulations with the force of law, and

(2) Where Federal laws, rules and regulations are needed, Congress should mandate that its laws be enforced by the states and local governments if the states and

local governments are willing so to do. Direct Federal enforcement is unnecessary unless states and counties refuse to act. That has not been the case in Nevada.

Respectfully submitted by the EUREKA COUNTY DISTRICT ATTORNEY, William E. Schaeffer, District Attorney

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STATEMENT OF JACK BLACKWELL, DEPUTY REGIONAL FORESTER, INTERMOUNTAIN REGION, USDA, FOREST SERVICE

Madam Chairman and Members of the Subcommittee:

Thank you for the opportunity to discuss the Forest Service's hard rock mining program.

For over 125 years, the mining industry has explored and developed locatable minerals underlying Federal lands, under provisions of the 1872 Mining Law. The Mining Law of 1872, and legislation since 1872, make public lands available for mineral development, allow private enterprise to develop and maintain an economically sound and stable domestic mining industry, and provide for the orderly development of domestic mineral resources.

Under Forest Service regulations, operators are required to reclaim lands to prevent or control damage to the environment so that existing problems with abandoned mines are not compounded.

Reclamation must be accomplished to protect other affected resources and minimize on-site and off-site damage, and to protect public safety. Before operations commence, the Forest Service in conjunction with operators, must establish and document in the plan of operations the reclamation standards for each site-specific activity.

Currently, under USDA regulations, minerals are considered in the overall context of planning for all resources. We have made progress in the last few years in administering our regulations for locatable minerals, including more thorough documentation and disclosure of effects of mineral activities under the National Environmental Policy Act. We strive to continually improve planning and administrative activities under statutory authority.

Hard Rock Mining Permitting Process

The Forest Service administers 5,000 to 6,000 plans of operation each year for hard rock mineral projects. The Intermountain Region, of which the Humboldt–Toiyabe National Forests are a part, has the heaviest minerals workload within the Forest Service. The Region administers about 2000 hard rock plans of operation per year.

When we receive a mining proposal, it is analyzed to determine if a plan of operations is necessary. If necessary, the plan is reviewed to determine if it contains the required information, what level of environmental analysis is needed, and if additional time is required to review the plan of operations. Within thirty days of receipt of a plan of operations, the district ranger informs the operator of the status of the plan.

Once all necessary information is provided, the environmental analysis is undertaken to analyze and disclose potential environment effects, and alternatives to the proposal. The plan of operations may be revised to include any additional items identified in the decision which were not in the original plan of operations. Once the plan is complete and a bond has been submitted for reclamation, the plan is approved.

Generally, projects are processed expeditiously in cooperation with the mining companies. The Forest Service discusses the proposal with the company to determine how the proposal can best meet the intent of the regulations. The Forest Service works with other Federal, state and local agencies to help coordinate the permitting process and avoid duplication. Memorandums of Understanding exist for program-wide coordination and are also developed for project-specific needs to facilitate this cooperation.

When project applications are received, the Intermountain Region strives to process mining operation applications quickly to accommodate the company's schedule, within the constraints of existing laws and regulations. For example, here in Elko County, the Jerritt Canyon Mine Expansion and DASH Project, both major undertakings, were permitted in less than 16 months. In contrast, a 1996 study commissioned by the Gold Institute found that the average time to permit a gold mine in the United States was in the range of 4 to 5 years.

One shortcoming of the Forest Service's permitting process for mining operations is our inability to meet consistently the timeframes specified in minerals regulations. The Forest Service is working hard to have these time frames work concur-

rently with other mandatory time frames, rather than sequentially. The Council on Environmental Quality is also working to remedy the problem of inconsistent time frames through its NEPA effectiveness study.

Field units with the heaviest hard rock mining workloads have also been encouraging a regulatory review and update for a number of other issues. Accordingly, we are examining possible modification of the surface-use regulations and have included this effort in the fiscal year 1997 plan of work, which will extend into fiscal year 1998.

These regulations were first issued in 1974, and no substantive modifications have occurred since. They have provided the Forest Service and the mining community with the means of meeting their mutual environmental responsibilities to protect the surface resources of National Forest System lands. They are intended to provide that protection without unreasonably inhibiting or restricting the activities of prospectors and miners.

Current Status of Regulatory Review

The Forest Service is examining changes to address shortcomings in the areas of occupancy, notices of intent, plans of operations, reclamation, and bonding. This effort is being coordinated with the Bureau of Land Management's review of its surface management regulations. The joint agency goal is to have regulations as consistent as possible.

As we stated earlier, managing the surface resource effects of operations, much work remains to remediate the effects of historical operations which have been abandoned. The Forest Service, in cooperation with state and other agencies, is working to identify and correct these problems.

This concludes my prepared testimony and I would be pleased to answer questions you may have.

STATEMENT OF JEAN RIVERS-COUNCIL, ASSOCIATE STATE DIRECTOR, NEVADA STATE OFFICE, BUREAU OF LAND MANAGEMENT

Madam Chair and members of the Subcommittee. I appreciate the opportunity to appear here today to discuss the status of permitting hardrock mining operations on public lands managed by the Bureau of Land Management (BLM) in Nevada. The BLM regulates these operations pursuant to the general mining laws of the United States and the Federal Land Policy and Management Act.

The State of Nevada is often called the Silver State. It became a state shortly after the discovery of the rich silver deposits of the Comstock Lode on the east side of the Sierra Nevada Mountains. Now, more than a century later, gold production in northern Nevada has eclipsed the silver production of the famous Comstock.

It is important to note that proper management of minerals production is only one of many resource issues for the BLM in Nevada. About 67 percent of the total land in Nevada is managed by the BLM. In addition, BLM Nevada has recorded over 756,000 mining claims of which 135,000 are still active (involving more than two million acres). More than half of all new claims filed annually with the BLM are recorded in Nevada.

Today I would like to focus on one aspect of the BLM's Nevada programs—the BLM's work with the mining industry. Nevada is the largest producer of gold and silver in the United States. About 67 percent of gold production in the Nation is from Nevada. That amounts to over seven million ounces per year. It can be said that the modern gold rush started in Nevada. Public lands have played a significant role in mineral development in Nevada. They continue to do so.

Processing Trends

To meet the needs of industry during this rush, the BLM and other regulatory agencies have worked intensively to reduce the time required to process notices and plans of operations. In the late 1980's, the time required to review and approve plans of operations and environmental impact statements was measured in years. The BLM recognized the pace of processing those plans was unacceptable. We addressed our process and improved it. In the last 2 years the BLM has developed more consistent and predictable technical guidelines. In several areas the agency has taken management steps to improve the quality and timeliness of review. Even with more complex plans of operation today, we have decreased review time. Some reviews of major plans of operations and environmental impact statements in Nevada take only twelve to fifteen months.

In coordination with agencies of the State of Nevada, the BLM is now processing 13 major new mining projects, mine expansions, and environmental impact state-

ments. There are about 2,300 active existing notices of operations and 335 open plans of operations on the public lands managed by the BLM in Nevada.

Regulatory Framework

The basic Federal regulations under which we operate are found in 43 CFR Part 3800. One provision of these regulations relates to smaller exploration and mining operations on public lands. These are operations which cause a cumulative surface disturbance of five acres or less. These operators are required to notify the BLM at least 15 calendar days before commencing operations.

The regulations are different for exploration and mining projects on public lands managed by the BLM that exceed five acres of disturbance. These operators must have a plan of operation analyzed and approved by the BLM. As a Federal agency, the BLM has a regulatory responsibility to assure that all Federal laws and regulations are met. The agency must properly analyze the information and impacts concerning any proposed operation. It has a responsibility to disclose information on mining operations to the public, as the ultimate owners of the land.

When the BLM processes exploration and mine plans and notices of operations, it must follow numerous Federal laws. These include the National Environmental Policy Act; National Historic Preservation Act; Endangered Species Act; Native American Graves Protection and Repatriation Act; American Indian Religious Freedom Act; Migratory Bird Treaty Act; the Federal Land Policy and Management Act; and the various statutes which make up the General Mining Law.

Changes affecting Processing Time

As I noted earlier, development of mineral resources in Nevada has grown rapidly in recent years. Nevada production has escalated from about a half million ounces of gold per year in 1981 to over seven million ounces in 1997. A large percentage of that production occurred on America's public lands. New production activity has shifted away from mining in shallow pits with simple leach grade oxide ores. Today's production comes from huge, deep open pits. Some of it also comes from underground mining. Some mines are producing gold from more than 1,200 feet below the surface. Furthermore, the ores produced today possess a far more complex chemistry and more expensive and challenging to process than those mined in the past.

In many of the valleys of Nevada, the ore lies below the water table. In the 1980's, these mines dewatered at an initial rate of 7,000 to 8,000 gallons per minute. To keep today's mines dry, water must be pumped at rates exceeding 30,000 to 50,000 gallons per minute.

To provide scientific data to support future Federal and State permitting and environmental activities, the U.S. Geological Survey (USGS) is working as the lead agency with the Nevada Department of Conservation and Natural Resources on a water resource study of the cumulative impacts of mining in the Humboldt River Basin. Major funding has been provided by Barrick Goldstrike and Santa Fe Pacific Gold Companies (now a part of Newmont Mining Corporation).

Major mining corporations have also come forward as working participants in the permitting process. They have voluntarily and willingly funded third party contracts to prepare National Environmental Policy Act documentation. Their willingness to work with the system, and to pay a fair share of the cost, has been crucial in reducing the length of the permitting process.

Good neighbors, cooperation

As I mentioned at the outset, the BLM has responsibility for a major part of the land in Nevada. This agency works hard to be a good neighbor. One way we do that is to work with the State in the mineral exploration and mine permitting program. The BLM has reached some major agreements with the State of Nevada, including two with the Nevada Department of Conservation and Natural Resources.

The first involved development of a program with the Department's Division of Environmental Protection for review of exploration and mining plans, reclamation bonding, inspections and reclamation requirements. Today there is a joint review process in Nevada.Under a memorandum of understanding with the State Division of Environmental Protection, we jointly hold over $375 million in reclamation bonds and sureties for exploration and mining operations on public lands.

- As part of this agreement, the State of Nevada, through fees paid by industry and allocated by legislation, has created a BLM-State mine permitting liaison position. This person works to resolve mutual concerns regarding permitting. Mining applicants benefit from the efficiency of this joint operation.

Under a second agreement, the BLM and the Nevada Division of Wildlife are cooperating in developing wildlife protection requirements, especially for tailings ponds and other mine ponds which contain chemicals used in mining operations.

The BLM also works closely with the Nevada Division of Minerals regarding remediation of abandoned mine hazards. Mining has occurred in Nevada for more than 140 years. During that time many prospectors and miners abandoned sites without cleaning them up. The State is helping us with this problem. Last year more than a hundred hazardous mine sites were identified and secured by the state. The Division of Minerals works with the mineral industry and the counties to make lands managed by the BLM safe once more.

The BLM has and will continue to practice and use the best science to address any new emerging issues. This can be achieved only through cooperation with the State and with industry. I have already mentioned the joint USGS–Nevada study of the Humboldt River Basin. The mutual goal is to provide more consistency and better predictability in the process. The results include some points in which we can all take pride. Let me list some of the products of this collaboration between the State, industry and Federal agencies.

- Comprehensive mine revegetation guidelines and standards.
- Consistent water data analysis guidelines for mine plans and environmental documentation.
- Guidelines for ecological risk assessment.
- Statewide guidance on how to address cumulative impacts in environmental impact statements.

Challenges

The BLM's hardrock mining surface regulations date back to 1981. Recent updates have included use and occupancy rules, an acid mine drainage policy, and hardrock bonding regulations. Secretary Babbitt in January of this year directed the BLM to form a 3809 task force which would address shortcomings in the current surface regulations, incorporate BLM policies which were developed to supplement the existing regulations, and meet BLM's strategic plan of incorporating "standards." The task force has embarked on a scheduled two year effort to update the 3809 regulations. Issues to be addressed include eliminating or modifying the 5-acre threshold for notices, revising the definition of unnecessary or undue degradation, expanding environmental and reclamation requirements, and clarifying casual use. Scoping meetings were held this spring throughout the country. We will be releasing to the public summaries of the comments at the scoping meetings.

During your stay here in Elko I am sure you have observed that this is a vital, growing city with a strong economy. The employees of the BLM in Nevada are aware of the important role we play in maintaining this healthy, growing economy. During the past decade technological advances in the mining industry have allowed the region's gold mines to create this expansion. The BLM has kept up with those advances. We have reduced the time required to permit development of these mines on public land. At the same time, we have learned how to address complex, comprehensive plans for mines that are on a scale not imagined twenty years ago.

This concludes my statement. I will be pleased to answer any questions you may have.

STATEMENT OF HON. MIKE FRANZOIA, MAYOR,

Congresswoman Cubin and Congressman Gibbons

I would like to thank you for providing me the opportunity to address you and personally welcome you to our great City.

You are here today to listen to testimony regarding the mining industry. As a citizen of this City for the past 17 years, I would like to share with you the impact we have experienced from mining. All of this I've witnessed first hand.

Elko continues to be a growing, thriving community. In 1980, our population was less than 10,000. We now have a population that approximates 19,000 and are projected to reach a population of nearly 31,000 in the next 15 years. Initially, this growth presented impact challenges to our high quality of life. But through these challenges, the community began receiving many things that we otherwise may have waited for, or perhaps, would never have realized.

Growth has been good for Elko, and the mining industry has played a role in our success. Let me give you a few examples:

- To bring new families in to the area, the mining industry invested in permanent, quality housing developments. This moved Elko away from being a "boom" town in the traditional sense. The traditional "boom" town is one that grows temporarily, then upon industry down turn, literally moves out. The permanent investment into Elko by the mining industry insures long-term community sustainability.

- Investment by the mining industry into our recreational facilities enables us to offer activities to citizens and visitors of all ages. Donations in cash and services to recreational projects include equipment, parks, sports fields, and a ski facility.
- Access to cultural activities and events have improved for all of us. Our museum is in the middle of a major expansion, the Western Folklife Center is a major attraction for citizens and visitor alike, and the Great Basin College now has a theater where we can enjoy a variety of entertaining performances. All of these are benefactors of the generosity of the mining industry.
- Education has been enhanced in Elko. What was once known as the Northern Nevada Community College is now Great Basin College. This fine institution offers education and training in a wide variety of fields, including mining technology. And we are all watching for this institution to become a 4 year college in the near future. The mining industry and its employee's have been great supporters of our college as well as our public school system. A new junior high is now in use in the Spring Creek area thanks to the mining industry's major contribution to the project.

We are glad this industry has impacted our community—it has been a positive impact on our quality of life. Legislation and regulation that harm mining is certainly not in the best interest of this community.

Thank you for providing the time to me to share the excitement I feel about this City and the wonderful things we have to celebrate—much of it a result of our mining industry neighbors.

TESTIMONY OF MARTIN JONES
NEWMONT GOLD COMPANY

BEFORE THE RESOURCES COMMITTEE OF
U.S. HOUSE OF REPRESENTATIVES

HEARING ON BLM 3809 REGULATIONS
Elko, Nevada
September 22, 1997

My name is Martin Jones, and I am Senior Manager of Nevada Environmental Compliance for Newmont Gold Company. In that capacity, I am responsible for overseeing compliance by Newmont Gold's Nevada operations with all federal, state and local environmental laws, including laws relating to exploration, permitting, operations, closure, and reclamation.

Newmont Gold is the largest gold producer in North America. Since 1965, Newmont Gold has engaged in the mining and beneficiation of precious metals-bearing ores in the Carlin Trend of north-central Nevada, which includes portions of Elko and Eureka Counties. Newmont Gold 's domestic operations today remain centered in northern Nevada in Elko, Eureka, Lander and Humboldt counties.

In the last 15 years, the U.S. gold mining industry has emerged as a world-class, internationally competitive industry, and it has accomplished this without the need for government

loans, subsidies, bailouts, or tax breaks. In fact, gold mining companies in most cases themselves have paid for the infrastructure necessary to support their operations by building roads and power lines and contributing to the costs of schools, hospitals, municipal water and waste facilities, and employee housing. The industry has done all this during a time when environmental regulations have been increasing and the need to protect the environment has been a primary focus. And, it has done all this while paying its employees wages that are higher than any other segment of American workers.

Over two-thirds of the nation's gold production takes place in the State of Nevada. According to a recent publication, gold mining generates over 51,000 jobs in Nevada and precious metals producers paid over $141 million in Nevada state and local taxes in 1995.[1/]

Newmont Gold and other mining companies work hard to ensure that their operations on public and private lands are conducted in an environmentally responsible manner and in accord with all applicable state and federal regulatory programs. These programs are numerous, and are reviewed by many different agencies,

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1/ Dobra, The U.S. Gold Industry 1996 5, 7 (Univ. of Nevada 1997).

including the Nevada Divisions of Environmental Protection, Water Resources and Wildlife, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the Army Corp of Engineers, and the Bureau of Land Management. We also recognize our obligation to properly close and reclaim mining sites after their useful life. In 1995, Newmont Gold was honored with the prestigious Nevada Governor's Reclamation Award for its work in conjunction with local ranchers and BLM to create and improve nearly 2,000 acres of riparian habitat, 82 miles of stream channels, and over 40,000 acres of upland watershed located on both private and public lands. Moreover, in the late 1980s, Newmont Gold worked closely with representatives of the Nevada Mining Association, Nevada Division of Environmental Protection and the Sierra Club to develop a consensus state reclamation program that would fully protect public lands and the environment. Nevada's hardrock regulatory programs are considered by many in industry and the regulatory community (*** comment of "by EPA" that you want scratched right here can be documented per Mary Beth. You might want to talk to her about leaving it in. 202-628-0005) to be the best in the country.

In my testimony today, I will focus on the Bureau of Land Management regulations applicable to hardrock mining on public

lands, known as the 3809 regulations. As I will discuss, these regulations -- the basic substance of which have been in place since 1980 -- have proved more than adequate to protect public lands in Nevada and elsewhere from undue degradation. Despite the rhetoric of critics of the mining industry, Newmont Gold has not seen any evidence indicating that these regulations have led to significant problems or that regulatory changes are necessary. This is especially true for States, like Nevada, that have comprehensive environmental, mining and reclamation regulatory programs in place that apply to hardrock mining operations on public as well as private lands.

BLM itself not long ago rejected calls to markedly revamp the 3809 program. In 1992, the Agency conducted a comprehensive review of the 3809 regulations and concluded that the centerpiece of the 3809 program, a rule that prohibits unnecessary or undue degradation of the public lands, was fully adequate. Similarly, the Western Governors' Association recently has concluded that there is no need to change the existing 3809 regulatory program.

As the Committee is no doubt aware, notwithstanding the conclusions in BLM's 1992 study, Secretary of the Interior Babbitt last spring appointed a Task Force to review the 3809 regulations and propose revisions, including revisions that would

impose prescriptive and inflexible nationwide standards on the industry. In connection with the Task Force's efforts, Newmont Gold in June 1997 submitted extensive comments addressing the 3809 program and the lack of any need for the types of proposed changes contemplated by the Secretary. I ask that these comments be made part of the record of these proceedings, and I will very briefly summarize them for Committee.

Under the existing 3809 program, persons wishing to engage in mining on public lands must submit a plan of operations for approval by BLM. The plan must include detailed and protective design, operating, and reclamation standards to which the operation will conform and that are appropriate for the mine in question. Before approving the plan, BLM undertakes a comprehensive assessment of all potential environmental impacts; and, if any are found, the plan of operations is modified as appropriate.

In addition to complying with the approved plan of operations, operators must comply with all federal and state environmental laws and regulations. For example, operations in Nevada must comply with, among other things, the detailed design, operating, and performance standards (including technology-based standards) imposed by Nevada's mining, reclamation, and wildlife

protection regulatory programs -- programs that have been praised as the most advanced and comprehensive state programs in the country because they ensure that the design and operation of each facility is appropriate for the physical, geological and hydrogeological conditions at each site.

The approach taken in the existing 3809 regulations has proved effective in protecting the public lands, without imposing unnecessary and infeasible requirements upon the industry. Tailoring operations and reclamation plans to site-specific conditions is essential to the continued viability of the industry. Hardrock mining involves many different minerals and mining and beneficiation techniques, and occurs in widely varying climatic and geologic settings. The appropriateness, cost, and feasibility of particular environmental or reclamation measures vary accordingly. And, unlike other industrial sites, operators cannot locate their mining sites in settings where compliance with "national" design standards might be feasible; mining can only take place where the minerals are located. For these reasons, a host of authorities, including the National Academy of Sciences, EPA, and the Western Governors' Association, have recognized that site-specific flexibility is an absolute necessity for regulations affecting hardrock mining.

In addition, by incorporating environmental regulations of the States and EPA into the 3809 program (rather than adopting a competing environmental regulatory program), BLM ensures that the public lands are fully protected without subjecting operators to dual, and potentially inconsistent, environmental regulatory regimes. Moreover, as the state and EPA regulations evolve to address new issues, the BLM regulations automatically evolve in tandem.

In conclusion, Newmont Gold believes that the 3809 program has worked well to protect public health, the environment, and public lands, including those in Nevada -- a conclusion shared by the Western Governors' Association. Despite their assertions to the contrary, environmental groups have failed to identify any but a small number of isolated instances where mining operations on the public lands subject to modern environmental programs (including the 3809 program) have led to significant environmental problems that could have been avoided by more prescriptive national standards. Instead, critics of the industry focus on the environmental problems existing at historic sites, where mining occurred long before the advent of the 3809 regulations. In Newmont Gold's view, the current regulatory scheme should not be altered unless BLM can show that significant

real-world problems exist that are not, and cannot be, addressed under the existing program. Certainly no such showing has been -- or in our view could be -- made with respect to public lands located in Nevada.

I thank you for the opportunity to address this Committee, and I will do my best to answer any questions you may have.

September, 1997

Martin R. Jones
225 Northglen Drive, Elko, NV 89801

PROFESSIONAL EXPERIENCE:

10/94 to Present

✦**Senior Manager, Nevada Environmental Compliance;** Manager, Environmental Compliance (Carlin Operations); Manager of Reclamation; Senior Environmental Coordinator for Newmont Gold Company, Carlin, NV.
Currently responsible for supervision of environmental compliance, reclamation & closure activities, and exploration permitting for all of Newmont's Nevada-based operations. Manage professional staff of thirty.

04/88 to 10/94

✦**Senior Environmental Coordinator;** Mine Engineer; Mine Geologist for Dee Gold Mining, Elko, NV.
Responsible for supervision of environmental compliance, permitting, and reclamation programs. Before assuming environmental position, responsibilities included: production quantity reporting, computer ore modeling, mine planning, drilling supervision; geologic mapping and sampling.

08/83 to 04/88

✦**Project Geologist** for Sunbeam Mining Corp., Stanley, ID
Responsible for all exploration and development activities and water quality monitoring program. Assisted with state and federal permitting activities.

08/74 to 01/83

✦**Minerals Technologist** for W.A. Bowes, Inc., Steamboat Springs, CO
Responsible for exploration field activities, special projects and laboratory work.

EDUCATION

✦MBA - May 1994, University of Nevada - Reno, Elko, NV
✦B.S. Geology - December 1982, Boise State University - Boise, ID

OTHER

✦Registered Professional Geologist, Idaho
✦Newmont Business Process Redesign Core Team (1997)
✦Chairman Nevada Mining Association's Environmental Committee (1997)
✦Nevada State Board of Child care Licensing (1996, 1997)
✦Formerly Chairman of Board of Directors, Creative Kids Co-op (1995,1996, 1997)
✦Cooperative Efforts within companies led to the following recognition.
- ✧Governor's Award for Reclamation Excellence, Dee Gold Mining Co. (1993)
- ✧Dupont/Conoco Environmental Leadership Award, Rayrock Mines, Inc. (1993)
- ✧Governor's Award for Reclamation Excellence, Newmont Gold Company (1995)

DISCLOSURE REQUIREMENT
Required by House Rule XI, clause 2(g)

1. Name: MARTIN R. JONES

2. Business Address: P.O. Box 669, Carlin, NV 89822

3. Business Phone Number: (702) 778-4463

4. Organization you are representing: NEWMONT GOLD COMPANY

5. Any training or education certificates, diplomas or degrees which add to your qualifications to testify on or knowledge of the subject matter of the hearing:

   SEE ATTACHED RESUME

6. Any professional licenses or certifications held which add to your qualifications to testify on or knowledge of the subject matter of the hearing:

   SEE ATTACHED RESUME

7. Any employment, occupation, ownership in a firm or business, or work related experiences which relate to your qualifications to testify on or knowledge of the subject matter of the hearing:

   SEE ATTACHED RESUME

8. Any offices, elected positions, or representational capacity held in the organization on whose behalf you are testifying:

   SEE ATTACHED RESUME

9. Any federal grants or contracts (including subgrants or subcontracts) which you have received since October 1, 1994, from the U.S. Department of the Interior and/or the U.S. Department of Agriculture, the source and the amount of each grant or contract:

   N/A

10. Any federal grants or contracts (including subgrants or subcontracts) which you have received since October 1, 1994, from the U.S. Department of the Interior and/or the U.S. Department of Agriculture, by the organization(s) which you represent at this hearing, including the source and amount of each grant or contract:

    N/A

11. Any other information you wish to convey to the committee which might aid the members of the Committee to better understand the context of your testimony:

    N/A

BEFORE THE
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT FOR REVISION OF THE SURFACE MANAGEMENT REGULATIONS AT 43 CFR PART 3809	)	**62 FED. REG. 16177 (April 4, 1997)**

COMMENTS OF NEWMONT GOLD COMPANY

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June 20, 1997

TABLE OF CONTENTS

BEFORE THE
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Intent to Prepare an Environmental Impact Statement For Revision of Surface Management Regulations at 43 C.F.R. Part 3809	)
62 Fed. Reg. 16177 (April 4, 1997)	)

COMMENTS OF NEWMONT GOLD COMPANY

Newmont Gold Company ("Newmont Gold") welcomes this opportunity to submit comments with respect to the Bureau of Land Management's April 4, 1997 Notice of Intent ("NOI") to prepare an environmental impact statement ("EIS") for the revision of the surface management regulations codified at 43 C.F.R. Part 3809. See 62 Fed. Reg. 16177 et seq.

Newmont Gold, the largest gold producer in North America, engages in the exploration, mining, and beneficiation of gold ores on both public and private lands in several of the western States, including Nevada, Alaska, and California. The vast majority of the Company's operations are in the State of Nevada.

Newmont Gold's operations have long been subject to a broad array of environmental and reclamation laws, regulations, and permit programs administered by a number of State and federal regulatory agencies. These agencies include the Nevada Divisions of Environmental Protection, Water Resources, and Wildlife, the U.S. Environmental Protection Agency, the Army Corps of Engineers, the U.S. Fish and Wildlife Service, and, of course,

BLM. Newmont Gold has a solid record of compliance with environmental and reclamation requirements, and it expends substantial resources to ensure that its operations are protective of human health, wildlife, the environment, and the public lands. Indeed, in 1995, Newmont Gold was honored with the prestigious Nevada Governor's Reclamation Award for its work in conjunction with local ranchers and BLM to create and improve nearly 2,000 acres of riparian habitat, 82 miles of stream channels, and over 40,000 acres of upland watershed located on both private and public lands.

Newmont Gold is also committed to working cooperatively with governmental authorities in connection with the development and revision of reasonable regulatory programs applicable to the mining industry. In the late 1980s, Newmont Gold worked closely with representatives of the Nevada Division of Environmental Protection ("NDEP") and the Sierra Club to develop a State reclamation program that would fully protect lands and the environment without imposing unnecessary or undue burdens on mining companies. The resulting regulatory program, which was adopted by NDEP in 1990,[1] is considered by many in industry to be the best state reclamation program in the country. This program is, of course, applicable to hardrock mining operations on BLM lands in Nevada.[2]

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[1] See Nevada Administrative Code ("NAC") § 519.010 et seq.

[2] See 43 C.F.R. § 3809.3-1; Kleppe v. New Mexico, 426 U.S. 529, 543 (1976); California Coastal Comm'n v. Granite Rock Co., (continued...)

Consistent with its past actions, Newmont Gold wishes to cooperate with BLM in connection with the current initiative to review the Part 3809 regulations. As we have indicated in meetings and conversations with members of the BLM 3809 Task Force, the Company believes that any revision to the regulations will result in a better and more widely accepted regulatory work product if accomplished through a collaborative process.

This does not mean that Newmont Gold believes there is a need at this time to revise the 3809 regulations. To the contrary, as we discuss in Part III below, at least in Nevada -- where operators are subject to comprehensive State and BLM environmental and reclamation requirements and where, accordingly, damage incidents have been few and largely minor -- the current 3809 program is fully adequate to protect human health, the environment, and the public lands. Nonetheless, we wish to maintain a continuing dialogue with BLM and the environmental community to better understand their concerns and to assist in the development of reasonable regulatory revisions that address any legitimate concerns.

These written comments are submitted as part of what we hope will be such a collaborative effort. They address both the scoping and the substantive issues raised in the April 4 NOI. We first address, in Part I of our comments, the procedures BLM has

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[2](...continued)
480 U.S. 572, 580 (1987); Memorandum of Understanding Between Nevada Division of Environmental Protection & USDA Forest Service & USDI Bureau of Land Management (1990).

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established to obtain public input into the EIS process. As we discuss, because BLM did not set forth a specific regulatory proposal in the NOI, we are significantly handicapped in our ability to provide meaningful scoping comments. To address this concern, we urge that, once BLM formulates a more concrete proposal, it reopen the public comment period prior to embarking upon the arduous task of preparing a draft EIS.

In Part II, we describe the four primary principles that should guide BLM's 3809 regulatory initiative. As we discuss, any ultimate regulatory revisions must (a) be necessary to ameliorate significant real-world problems that are not being addressed by existing State and federal laws; (b) be consistent with and largely incorporate State regulations; (c) contain flexible requirements that can be tailored to fit the precise situation at each given mine site; and (d) not impose unreasonable economic, administrative, or compliance burdens on operators. In Part III, we then show that there is in fact no need for regulatory revisions in states like Nevada that already have comprehensive environmental and reclamation regulations applicable to operations on the public lands.

Parts IV through VII of our comments deal with the four substantive issues raised in the April 4 NOI: notice-level operations; technology-based standards; performance standards; and coordination with State programs. As we discuss in those Parts, we are very concerned with BLM's suggestions that the current regulations relating to notice-level exploration

operations should be eliminated and that technology-based standards and performance standards mandating the "means and methods" of attaining outcomes (such as a backfilling requirement) should be considered. It is unnecessary and inappropriate to preclude notice-level exploration activities, given that by their very nature they cause nominal surface disturbance and that they are subject to substantial reclamation and bonding requirements. Uniform technology-based and performance standards are similarly inappropriate, given the diversity of minerals and mining techniques and hydrogeologic and climatic settings present in the hard rock mining industry -- a fact that has been recognized by the National Academy of Sciences, EPA, and the Western Governors' Association.

Finally, in Parts VIII and IX, we discuss various alternatives that BLM should consider in connection with preparation of the draft EIS and the impacts that should be evaluated with respect to all such alternatives. Among other things, we urge that BLM carefully consider the "no action" alternative, the alternative of retaining the current 3809 program but increasing BLM resources, and an alternative pursuant to which BLM defers to the regulations of States and other federal agencies, at least in states like Nevada that have comprehensive environmental and reclamation regulatory programs. We also urge that, in connection with evaluating alternatives, BLM carefully consider the many impacts to exploration and

mineral production, as well as to local and regional economies, that could result from a change in the 3809 regulations.

We now turn to a more detailed discussion of each of these points.

I. BLM Must Ensure Adequate Public Input Into The EIS Process

Before addressing the substantive matters raised in the April 4 NOI, we wish to comment upon the procedures BLM has established to obtain public input into the EIS process. As we stated at the recent public hearings,[3] Newmont Gold is somewhat handicapped in its ability at this time to provide useful and comprehensive written comments to BLM. The reason is that the NOI does not set forth in detail the regulatory proposal, or alternative proposals, that BLM will investigate as part of the EIS process. Although it mentions certain types of regulatory concerns that may be considered by the 3809 Task Force (such as whether to impose Best Available Technology ("BAT") requirements or performance standards), the NOI does not sufficiently flesh out those concerns to apprise the industry and the public of specific regulatory proposals or the underlying regulatory deficiencies (if any) that led BLM to consider such proposals. The NOI thus does not meet applicable EIS regulations.[4]

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[3]Newmont Gold representatives participated in the NOI public hearings held in Spokane (May 13), Golden (May 13), Fairbanks (May 15), Reno (May 20), and Washington, D.C. (May 22).

[4]See 40 C.F.R. § 1508.22(a) (a Notice of Intent must (continued...)

More importantly, it is difficult for Newmont Gold to set forth meaningful alternatives or impacts to be considered in the EIS process since we do not know what BLM has in mind or why or how BLM believes the current 3809 program has failed. Similarly, as we discuss in more detail in later sections of these comments, we find it difficult to address the need for, or appropriateness of, BAT or performance standards, since we do not fully understand what BLM means by these concepts.

To address these concerns, we strongly urge that, if and when BLM has formulated a more concrete proposal or proposals for revision of the 3809 regulations, it issue a revised NOI, reopen the written comment period, and possibly hold additional public hearings before embarking on the arduous and expensive task of preparing a draft EIS. This will allow the public more meaningfully to suggest impacts and alternatives that should be assessed in the EIS process. Given the potential significance of 3809 regulatory revisions, any minor delay in the EIS process thereby occasioned would certainly be outweighed by the increased input that will be available to guide the Agency in connection with preparation of the EIS.

'(...continued)
"[d]escribe the proposed action and possible alternatives").

II. Four Principles Should Guide BLM's 3809 Regulatory Initiative

Newmont Gold believes strongly that any ultimate revision to the 3809 regulations must satisfy four overall principles if it is to result in a successful and workable regulatory program. These principles are: necessity, consistency with State regulations, site-specific flexibility, and reasonableness. As such, in connection with the EIS process, BLM must assess any proposals or alternatives against these criteria; and it should reject any proposal that fails to satisfy any of them.

1. Necessity. Newmont Gold and other operators are already subject to myriad State and federal environmental and reclamation regulatory programs designed to protect human health, the environment, wildlife, and the public lands. One such program is the current 3809 regulations, which have been in effect for 16 years and with which operators are intimately familiar. BLM should not adopt regulatory revisions, and thereby require operators to incur additional expense learning and complying with a new regulatory program, unless there is an identifiable and significant environmental need to do so. As we discuss in Part III below, this means that before imposing any new or different requirements, BLM must first satisfy itself that significant real world problems exist that are not, and cannot be, addressed under existing State and federal requirements.

2. Consistency With State Regulations. Any ultimate regulatory revisions must also be consistent with, and (to the extent possible) incorporate by reference, State laws and regulations.

Many operators (including Newmont Gold) engage in exploration and mining activities on mixed public and private sites. An administrative nightmare could result were such operators required to comply with different -- not to mention inconsistent -- regulations at the same overall site, depending on whether any given activity or facility at the site was on the public (as opposed to private) portion of the land. Indeed, if the regulations were inconsistent, it might be impossible to achieve compliance with both of them.

Even where operations are not conducted on mixed lands, however, differing State and BLM regulatory programs present problems. Where differences exist, Company personnel have to learn and apply differing standards to different sites within the same State, depending on whether they are on public or private lands. BLM should thus strive to ensure that any revised 3809 program incorporates State standards and that the program is consistent with the State programs.

3. Site-Specific Flexibility. Any regulatory program ultimately adopted by BLM also must recognize the diversity that exists among hardrock mining operations in different regions, States, and even different locations within the same State, and consequently must contain flexible requirements that can be

tailored to fit the precise situation present at each given mine site.

The hardrock mining industry encompasses a large number of different minerals and mining and beneficiation techniques, and takes place in widely varying hydrogeologic and climatic settings. The appropriateness, cost, and feasibility of particular environmental protection or reclamation measures vary depending upon such site-specific factors as elevation, soil type, geology, directional exposure, depth to groundwater, distance to surface water, precipitation levels, nearby land uses, and mineral involved. What is feasible and appropriate at one site may be infeasible at another site located only miles away. Moreover, unlike other industries, hardrock mining operators cannot voluntarily locate their facilities in a setting where compliance with "national" regulatory requirements might be feasible and reasonable. Mining must occur where the minerals are located.

As a result, "one size fits all" national or regional design and operating standards, or uniform technology standards, are not appropriate for the hardrock mining industry. This fact was acknowledged by the National Academy of Sciences in its 1979 report relating to the surface mining of non-coal minerals.[5] The Academy concluded that, in the case of hardrock minerals, "the

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[5]See National Academy of Sciences/National Research Council, Surface Mining of Non-Coal Minerals: A Study of Mineral Mining from the Perspective of the Surface Mining Control and Reclamation Act of 1977 1 (1979).

particular conditions of each non-coal mining operation" must be taken into account when imposing reclamation objectives.[6]

The U.S. Environmental Protection Agency reached the same conclusion in connection with its efforts, in the early 1990s, to develop a program under Subtitle D of the Resource Conservation and Recovery Act ("RCRA") for the management of mining and beneficiation wastes. In its draft "Strawman" regulatory proposals, and at meetings of a Mine Waste Policy Dialogue Committee established under the Federal Advisory Committee Act, EPA (as well as representatives from the States and the federal land management agencies), concurred with industry representatives that any such program had to allow for State flexibility to impose standards best suited to the types of mines and settings present in each State.

Indeed, the western States have recently reaffirmed their view that flexibility is an absolute necessity for hardrock mining operations. In an April 22 letter to the U.S. Department of the Interior, the Western Governors' Association emphasized that "prescriptive national reclamation standards will not work" in the hardrock mining area, due to "differences in climate and geology" among mine sites.[7] The existing 3809 regulations also acknowledge this fact by wisely allowing BLM and operators to

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[6] Id. at 266.

[7] Letter from Mike Long et al., Western Governors' Association, to Dave Alberswerth and Bob Anderson, U.S. Department of the Interior (Apr. 22, 1997) (hereinafter "WGA letter") at 1.

devise and implement individual plans of operation and reclamation plans appropriate to each particular site. See 43 C.F.R. §§ 3809.1-5 & 3809.1-6.

4. Reasonableness. Any regulatory revisions ultimately adopted by BLM also must not impose unreasonable economic, administrative, or compliance burdens on operators. As BLM knows, the General Mining Law grants operators the right to locate and mine hardrock minerals situated on most BLM-administered lands.[8] Although section 302(b) of the Federal Land Policy and Management Act of 1976 ("FLPMA") empowers the Secretary of the Interior to "take any action necessary to prevent unnecessary or undue degradation of" such lands, it does not empower the Secretary to prohibit mining on the public lands or to accomplish the same result by imposing overly costly or infeasible regulatory requirements as a condition of mining. This fact has been explicitly recognized in the 3809 regulations since their promulgation in 1980.[9]

Among other things, BLM should not be in the business of dictating whether a particular area is suitable for mining at all, or determining the amount or types of minerals that can be

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[8]See General Mining Law, 30 U.S.C. § 22 et seq. See also 43 C.F.R. § 3809.0-6 ("[u]nder the mining laws a person has a statutory right, consistent with Departmental regulations, to go upon the open (unappropriated and unreserved) Federal lands for the purpose of mineral prospecting, exploration, development, extraction and other uses reasonably incident thereto").

[9]See 43 C.F.R. § 3809.0-2(a) (objectives of 3809 regulations are to "[p]rovide for mineral entry, exploration, location, operations, and purchase pursuant to the mining laws in a manner that will not unduly hinder such activities ....").

mined. Any such regulations would effectively amount to a prohibition on mining, in contravention of the General Mining Law. Moreover, BLM must recognize that, unlike coal, the price of hardrock minerals is generally set by global markets. As such, significant cost increases occasioned by new regulatory requirements cannot be passed on to the consumer, but will operate to reduce profits, or, in a worst case, preclude all production. In this regard, domestic mining is the source of thousands of high paying jobs in the western States, and, through wages, tax payments, and other expenditures, is a mainstay of many local and regional economies. Any regulatory program that results in a cutback in exploration or mining will also cut back on jobs and the health of these economies.

III. BLM Should First Establish The Need For Regulatory Revisions Before Embarking On A Costly EIS Process

As discussed above, one of BLM's guiding principles should be to consider regulatory revisions to the 3809 regulations only if there is an identifiable and significant need for revision. Indeed, under the applicable National Environmental Policy Act ("NEPA") regulations, BLM eventually will have to "specify [in the EIS] the underlying purpose and need to which the agency is responding" in proposing to revise the 3809 regulations. 40 C.F.R. § 1502.13. Moreover, as part of the EIS process, BLM will have to evaluate the merits of the "no action alternative." See 40 C.F.R. § 1502.14(d). Consequently, the Agency eventually will

be required to address the environmental, socioeconomic, and other consequences of retaining the current regulatory program, as well as the reasons (if any) that the current program needs to be changed.

In our view, however, it makes no sense to go through the time-consuming and costly EIS process before making this evaluation of need. Rather, the EIS process should be held in abeyance unless and until BLM determines that the current 3809 program, in conjunction with other applicable State and federal laws, is truly inadequate to address significant and widespread real-world problems that are occurring in connection with hardrock mining on the public lands. The January 6, 1997 memorandum from Secretary Babbitt that initiated the current regulatory review process does not mention any such problems. Nor does the April 4 NOI or, as far as we are aware, any of the Task Force documents that have been circulated to the public.

In fact, BLM's most recent comprehensive review of the 3809 regulations concluded that there was no need to revise the current regulatory definition of "unnecessary or undue degradation" that is the centerpiece of the 3809 regulations.[10] This conclusion was reached after a "thorough review of all applicable Inspector General, General Accounting Office, and BLM's own internal audits of the 3809 program," as well as

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[10]See U.S. Department of the Interior, Bureau of Land Management, 1872 Mining Law Operations: 3809 Surface Management Regulation Review Task Force Findings & Analysis 12 (April 1992) (hereinafter "BLM 1992 Report").

evaluation of written comments from BLM Resource Areas, District Offices, and State Offices, state and local government entities, environmental groups, and industry.[11] BLM also held four public roundtable meetings to ensure that it was apprised of all relevant views and facts before rendering its decision.[12]

In addition, the western States have recently made clear that, in their view, there are not "any problems on the ground caused by the existing 3809 regulations."[13] To the contrary, western State environmental and reclamation officials believe that "[g]enerally, these [3809] regulations are working well."[14]

In light of BLM's 1992 Report, and the views expressed by the western States, we are puzzled by BLM's current implicit assumption that regulatory revision is now needed. At the very least, we think BLM should first evaluate the efficacy of existing federal and State laws before embarking upon a new regulatory initiative.

We would certainly be surprised were BLM to conclude, after such a review, that additional regulation is needed with respect to hardrock mining operations located on public lands in Nevada. The reason is that the State of Nevada (where the vast majority of Newmont Gold's facilities as well as those of the nation's other gold producers are located) already imposes comprehensive

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[11] Id. at 4.

[12] Id. at 3.

[13] See WGA letter, supra note 7, at 1.

[14] Id.

requirements relating to design, operation, closure, reclamation, and wildlife protection at hardrock mining facilities. These requirements minimize any risks to the environment or lands from hardrock mining and mineral processing facilities, including heap leaching and tank leaching operations utilizing cyanide. Moreover, these requirements apply whether a facility is located on privately owned land or on public lands.[15]

In a February 1997 report, the U.S. Environmental Protection Agency praised the Nevada regulatory program as "the most advanced cyanide mill tailings facility regulatory framework" in the nation.[16] Among other things, the EPA report discusses in detail the "extensive set" of Nevada regulations that "govern the design, operation, and closure of mining facilities" in the State, and how these regulations "ensure" that "the design and operation of [each] facility is appropriate for the physical, geological and hydrogeological conditions at the site."[17] Indeed, the EPA report concludes that, in virtually all respects, the Nevada regulations are more protective of health and the environment than regulations that have been adopted by EPA for radioactive uranium and thorium mill tailings.[18] The conclusions

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[15]California Coastal Comm'n v. Granite Rock Co., 480 U.S. 572, 580 (1987); Kleppe v. New Mexico, 426 U.S. 529, 543 (1976).

[16]U.S. Environmental Protection Agency, Office of Solid Waste, Nevada Gold Cyanide Mill Tailings Regulation § 1.1 (Feb. 1997).

[17]Id. §§ 2.1, 2.2.1.

[18]Id. Table 2-1 and accompanying chart.

in this EPA report are consistent with the views expressed in 1992 by EPA's Office of Pollution Prevention about the comprehensiveness of Nevada's regulatory program.[19]

EPA's February 1997 report discusses in detail the many requirements imposed by Nevada on mining operators in the areas of surface water and ground water protection, reclamation, dam stability, and wildlife protection. Here, we will mention only a subset of the applicable requirements. We urge, however, that the Task Force review in detail the Nevada regulatory requirements as well as the 1997 EPA report, a copy of which is attached to these comments.

Pursuant to Nevada's regulations, in areas of the State where annual evaporation exceeds annual precipitation (such as the area where Newmont Gold's facilities are located), facilities must achieve zero discharge to surface water. NAC § 445A.433(1)(a). Moreover, with minor exceptions, groundwater quality cannot be lowered below drinking water standards (including drinking water standards for heavy metals), and the concentration of weak-acid dissociable ("WAD") cyanide in groundwater cannot exceed 0.2 mg/l. NAC § 445A.424(1). Facilities also must draw up and implement a program to monitor the quality of all groundwater and surface water that may be affected by the facility. NAC § 445A.440. If monitoring reveals that any constituent has been

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[19]See U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics, Cyanidation Mining Initiative 30 (March 9, 1992) ("Nevada's regulations are considered to be among the best and most comprehensive, and several gold mining States now have, or are developing, similar requirements.").

released into groundwater or surface water, the operator must conduct an evaluation, and if appropriate, undertake remedial measures. NAC § 445A.441.

Land-based process components must in addition comply with very stringent design standards. Leach pads must consist of an engineered liner system that provides containment equal to or greater than that provided by a synthetic liner placed on top of a prepared subbase of 12 inches of soil which has a maximum recompacted in place coefficient of permeability of either (1) 10^{-6} cm/sec or (2) 10^{-5} cm/sec when combined with a leak detection system. NAC § 445A.434. Moreover, all ponds that are intended to contain process fluids (including pregnant solution ponds) must be double lined with a leachate collection system between the liners. NAC § 445A.435. Even ponds that do not contain process fluids may be required to be lined depending on their potential to degrade waters of the State. Id.

Nevada also has stringent rules regarding the treatment and monitoring of spent ore heaps at closure. Such heaps must be rinsed until the WAD cyanide level in the rinse water is less than 0.2 mg/l, the pH of the rinse water is between 6.0 and 9.0, and any contaminants in effluent from the ore cannot degrade surface water or groundwater. NAC § 445A.430. Similarly, tailings impoundments must be stabilized at closure so as to inhibit the migration of any contaminant (including cyanide) that has the potential to degrade waters of the State (including groundwater). NAC § 445A.431.

In addition, all overburden and waste rock must be tested for acid-generating potential.[20] Any material found to be potentially acid-forming must be disposed of in a manner that will minimize the formation of acids, and assure that any resulting acid drainage is appropriately managed.

Nevada has also enacted and successfully implemented a law specifically designed to protect wildlife (including avian wildlife) from dangers posed by artificial ponds containing chemical substances, including cyanide-bearing pregnant and barren solution ponds and tailings impoundments. See Nev. Rev. Stat. § 502.390. The law and its implementing regulations impose permit, fencing, cover, containment, chemical neutralization, and reporting requirements tailored to the specific artificial ponds operated by the permittee, and require the permittee to take all measures necessary to preclude any wildlife death due to contact with the artificial pond. See NAC § 502.460 et seq.

The State also has adopted extensive reclamation regulations designed to ensure that, after closure, lands used for mining operations are returned to a safe, stable condition for productive post-mining use. NAC § 519A.010 et seq. These regulations require an operator to obtain a reclamation permit, prepare a plan that will achieve reclamation goals, and post a bond to cover the anticipated costs of reclamation. The

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[20]See Nevada Division of Environmental Protection, Waste Rock and Overburden Evaluation (Sept. 1990); Nevada Division of Environmental Protection, Meteoric Water Mobility Procedure (May 1996).

regulations identify measures that the State considers appropriate for reclamation of tailings impoundments, leached heaps, and other on-site facilities. NAC § 519A.345.

The above State regulations are in addition to the cyanide control program instituted by BLM in August 1990 for operations on federal lands.[21] Under the BLM program, all cyanide leaching operations under BLM jurisdiction must, inter alia, be inspected four times per year; be protective of public health, wildlife, and the environment; contain leak detection and recovery systems and monitoring systems for surface water and groundwater; and satisfy bonding requirements.[22] These BLM guidelines are meant to supplement, not replace, the State regulations described above, which remain enforceable on lands subject to BLM jurisdiction.

The comprehensiveness and efficacy of the existing regulatory programs applicable to Nevada hardrock mining operations is reflected in the absence of "problem sites" in the State. Of the 60-odd mining and mineral processing sites on the Superfund National Priorities List, only one (Carson River Mercury) is located in Nevada, and that site is a historic site where operations occurred long before the advent of the existing

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[21]U.S. Bureau of Land Management, Policy for Surface Management of Mining Operations Utilizing Cyanide or Other Leaching Techniques (August 1990).

[22]Id. ¶¶ 8-11.

State and federal regulations.[23] In addition, according to a recent EPA Background Document, no mining or mineral processing facility located within the State of Nevada has ever been issued an abatement order under § 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA").[24] As BLM is aware, § 106 orders are issued to facilities with environmental releases that may present a substantial endangerment to human health or the environment.[25]

Of particular note, there is no evidence that hardrock facilities in Nevada which utilize cyanide are causing widespread damage to the public lands, wildlife, or the environment. According to the General Accounting Office, the reported avian deaths attributable to the 119 cyanide-using mining operations on public lands in Nevada, Arizona and California during 1984 to 1989 totaled about 0.1% of bird deaths caused by hunting in those states in a single year.[26] This GAO study predates Nevada's 1990 enactment and implementation of its artificial pond permit program to protect wildlife from exposure to cyanide and other

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[23]See U.S. Environmental Protection Agency, Office of Solid Waste, Mining and Mineral Processing Sites on the NPL 14 (Feb. 1997).

[24]See U.S. Environmental Protection Agency, Office of Solid Waste, CERCLA Imminent Hazard Mining and Mineral Processing Facilities (Feb. 1997).

[25]See CERCLA § 106, 42 U.S.C. § 9606.

[26]See U.S. General Accounting Office, Mineral Resources: Increased Attention Being Given to Cyanide Operations (June 1991) (hereinafter "GAO Report") at 15.

chemical substances. Since implementing this law (discussed at page 19 above), Nevada has seen the number of cyanide-attributed wildlife deaths at mines drop by over 60 percent between 1990 and 1995, with an even more dramatic 89% drop in the number of cyanide-attributed deaths to avian wildlife (from 1143 in 1990 to 130 in 1995).[27] Moreover, the reduction in wildlife mortalities is even greater when one considers that the typical mining operation has tremendously increased its gold production (including heap leach facilities) during the past decade.

In addition, spills of cyanide or cyanide-bearing solutions at precious metals facilities (which are rare) are usually minor in nature, and have no significant environmental impact. The General Accounting Office, for instance, discovered only 31 inadvertent discharges from 119 cyanide-using mining operations located on federal lands in Nevada, California, and Arizona between 1984 and 1991.[28] That is less than 1 discharge per facility over a 6-year period.

Perhaps more important than frequency, when spills do occur, their effects are usually transient. According to the GAO,[29]

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[27]The data relating to cyanide-attributed deaths at mine sites in Nevada was received from Doug Hunt, Habitat Staff Wildlife Biologist, State of Nevada Department of Conservation and Natural Resources, Division of Wildlife. The Division of Wildlife counts as a "cyanide-related death" a death occurring in the vicinity of any solution pond containing cyanide; such a death therefore is not necessarily the result of cyanide ingestion.

[28]GAO Report, supra note 26, at 11, 21.

[29] Id. at 21.

federal and State officials with jurisdiction over mining and environmental matters generally believe that the rare episodic releases of cyanide from mining facilities that do occur do not result in significant or lasting environmental damage. Among other things, GAO found that few cyanide releases from precious metals operations have affected groundwater, and those that have have occurred in remote areas and have not affected drinking water supplies.[30]

The rarity of significant damage incidents involving cyanide is certainly true in Nevada. In a recent Background Document, EPA attempted to catalogue, among other things, cyanide-related "damage incidents" occurring in several western States between 1990 and 1996.[31] It found only a handful of cyanide-related spills in Nevada, virtually all of which were promptly reported to regulatory authorities and completely cleaned up with no adverse environmental consequences.[32]

In short, at least in Nevada, existing State and federal regulatory requirements are effectively protecting the environment and preventing degradation of the public lands by

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[30]Id. at 21-22; see also Agency for Toxic Substances and Disease Registry, Toxicological Profile for Cyanide, Draft for Public Comment at 141 (August 1995) (mining contribution to environmental discharges of cyanide is "negligible").

[31]U.S. Environmental Protection Agency, Office of Solid Waste, Damage Cases and Environmental Releases From Mines and Mineral Processing Sites (1997).

[32]Id. at 143-80.

hardrock mining operations. As such, as far as we are aware, there is no need for increased BLM regulation.

IV. Exploration Activities Should Remain Eligible For Notice-Level Operation Status

The April 4 NOI, as well as Secretary Babbitt's January 6 memorandum, indicate that BLM is considering whether to amend the current 3809 regulations applicable to notice-level operations. One option specifically under consideration is to eliminate notice-level operations altogether and, instead, require prior BLM approval for all operations on public lands no matter how small the affected area. At least with respect to exploration activities affecting fewer than five acres of land, any such elimination would be both unnecessary and unwise.

As discussed earlier, BLM should not consider making significant regulatory changes unless changes are necessary to address real-world problems that are not, and cannot be, remedied under existing State and federal regulatory authority. We are unaware of any significant problems posed by notice-level exploration activities on BLM lands.

As BLM is aware, such activities do not cause significant surface disturbances. The typical Newmont Gold notice-level exploration project involves the drilling of a handful of small holes that are then "plugged" as part of the reclamation process. There is no use of cyanide or other potentially hazardous chemicals, no risk of contaminant releases to surface waters or

groundwaters, and no creation of waste disposal facilities. Moreover, any minimal roadways or pads that may have to be built to gain access to the site or to hold drilling equipment are also reclaimed.

Moreover, these notice-level exploration activities are already subject to numerous existing 3809 requirements designed to ensure that the public lands are protected. Operators must provide fifteen days prior notice to BLM of their intent to begin exploration (or any other activity) affecting fewer than five acres. That notice must provide BLM detailed information about the nature and location of the proposed activity, 43 C.F.R. § 3809.1-3(c)(3), and BLM has authority to step in and stop a proposed plan that would result in unnecessary or undue degradation. 43 C.F.R. § 3809.3-2(a).

Notice-level operators also must take reasonable measures to prevent unnecessary or undue degradation of lands, 43 C.F.R. § 3809.1-3(c)(4), and their operations are subject to BLM monitoring to ensure that they are being conducted appropriately. 43 C.F.R. § 3809.1-3(e). Operators also must reclaim all notice-level operations, 43 C.F.R. § 3809.1-3(c)(4), and must inform BLM when reclamation is complete so BLM may inspect the affected area. 43 C.F.R. § 3809.1-3(d)(5). BLM has the authority to enjoin operations that do not comply with these or other notice requirements. 43 C.F.R. § 3809.3-2(a). Moreover, under the new bonding regulations, a Professional Engineer must certify that the operator's bond calculations for notice-level operations are

correct. 43 C.F.R. § 3809.1-9(c). As such, BLM has more than enough regulatory arrows in its quiver to prevent notice-level exploration activities from causing unnecessary or undue degradation to the public lands.

In addition, by eliminating notice-level exploration activities, BLM would adversely affect the ability of operators to proceed with significant (greater than five acres) mining projects. Obtaining BLM approval of such major projects, which often must be preceded by an EIS, is already a long and expensive process. If BLM must use some of its personnel to approve notice-level exploration activities, it will be able to devote even fewer of its resources to reviewing significant projects, thus increasing the length of time operators must wait before securing BLM approval.

In the April 4 NOI BLM also suggests that elimination of notice-level operations might apply only in "environmentally sensitive areas." 62 Fed. Reg. at 16178. Although Newmont Gold is not categorically opposed to such a suggestion, we are concerned about how such lands would be identified. The existing regulations already disallow notice-level operations in specifically enumerated "sensitive areas." See 43 C.F.R. § 3809.1-4(b). We would need further details about the proposal to offer more specific comments.

BLM also notes that it might consider extending the time it is allowed to review a notice. 62 Fed. Reg. at 16178. Newmont Gold also is not categorically opposed to providing a bit more

advance notice of notice-level exploration operations if that would somehow alleviate any concerns BLM has with the current 3809 program. However, any such revised notice-level exploration program would have to contain a specific cut-off date after which an operator may proceed with the exploration project even if BLM's review is not complete.

BLM also states in the NOI that it might consider requiring operators to provide additional information in their notice. However, the existing notice regulations already require operators to provide a significant amount of information. Besides providing the name and serial numbers for mining claims, 43 C.F.R. § 3809.1-3(c)(2), operators must describe the proposed activities, their location, their approximate start date, the nature and location of access routes to be constructed, and the type of equipment to be used in their construction. 43 C.F.R. § 3809.1-3(c)(3). The notice also must include a statement that operators will reclaim the affected area and that they will take reasonable measures to prevent unnecessary or undue degradation of public lands. 43 C.F.R. § 3809.1-3(c)(4). Thus it is unclear what additional notice information BLM could need to fulfill its charge of preventing unnecessary or undue degradation.

V. BLM Should Not Incorporate Technology-Based Standards Into The Definition Of Unnecessary Or Undue Degradation

Section 302(b) of the FLPMA empowers BLM to "take any action necessary to prevent unnecessary or undue degradation of the [public] lands." 43 U.S.C. § 1732(b). In carrying out that statutory mandate, BLM has always defined "unnecessary or undue degradation" by reference to the "prudent operator." Thus, pursuant to 43 C.F.R. § 3809.0.5(k), "unnecessary or undue degradation" means "surface disturbance greater than what would normally result when an activity is being accomplished by a prudent operator in usual, customary, and proficient operations of similar character . . . ." The definition further requires operators to undertake reasonable reclamation measures and to comply with State and federal environmental laws. Id.; see also 43 C.F.R. § 3809.2-2.

The "unnecessary or undue degradation" standard is effectuated by requiring operators to secure BLM approval of individual plans of operations (including reclamation plans), usually only after (1) preparation of a comprehensive NEPA analysis evaluating the proposed operations and (2) discussion with BLM officials concerning feasible and cost-effective measures that should be undertaken at that particular site to protect lands and the environment. See, e.g., 43 C.F.R. § 3809.1-5(5); 43 C.F.R. § 3809.1-6(a). Moreover, by requiring compliance with State and federal environmental laws, the

technology- and performance-based standards of such laws are applicable at the site.

The April 4 NOI states that BLM now "contemplates revising the [unnecessary or undue degradation] definition to more clearly require the use of 'best available technology and practices,' local or State 'best management practices,' or other similar technology-based standards appropriate in the conduct of hardrock mining." 62 Fed. Reg. 16177, 16178. No reason is given for this contemplated regulatory revision, either in the NOI or in Secretary Babbitt's January 6, 1997 memorandum.

Newmont Gold is both puzzled by and concerned with BLM's current focus on additional technology-based standards. We are puzzled because, as far as we are aware, the existing regulatory program has worked well to protect public lands and the environment. Indeed, BLM has in the past twice investigated, and twice rejected, the idea of incorporating technology-based standards into the 3809 regulations.

BLM first rejected use of such standards when it initially promulgated the 3809 regulations in 1980. The BLM proposal from which the 1980 regulations derived would have defined "unnecessary or undue degradation" as "including use of the best reasonable available technology." 45 Fed. Reg. 13956, 13960 (Mar. 3, 1980). The final rule deleted this requirement, however, in response to "a number of comments [that] found the definition in the proposed rulemaking too confusing." 45 Fed. Reg. 78902, 78903 (Nov. 26, 1980).

The second time BLM rejected calls for a technology-based standard occurred in 1992, following the Agency's searching review of the 3809 regulatory program. That review -- described at pages 14-15 above -- culminated in a detailed Agency report which concluded that the definition of unnecessary or undue degradation should not be changed.[33] Of particular significance, the report specifically rejected calls from some quarters that BLM add a technology-based component to the definition of unnecessary or undue degradation.[34]

Given these two specific BLM rejections of a technology-based standard, and the longstanding existence of the current "prudent operator" definition, we would expect BLM to set forth a very compelling reason to justify a change in course by adding a technology component to the definition now. As noted, however, neither the NOI nor Secretary Babbitt's memorandum puts forth any reason, much less a compelling reason, for BLM's contemplated reversal of position.

In this regard, we remain confused as to what types of technology-based standards BLM has in mind. In meetings with representatives of the 3809 Task Force, Newmont Gold representatives have inquired whether BLM is considering numeric-based technology standards (analogous to effluent limitations

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[33] BLM 1992 Report, supra note 10.

[34] See id. at 58.

imposed under the Clean Water Act[35] or land disposal restrictions imposed under the RCRA[36]) that would limit the level of certain constituents that can be released or be present at any mining site; or standards that require use of particular technologies or practices at all mining sites in a given mineral sector (analogous to treatment methods required for certain wastes under RCRA[37]); or a flexible "best management practices" program to be adapted by the operator to its particular site (analogous to the BMP-based program imposed by EPA to regulate stormwater discharges[38]). The response of BLM representatives has been that the Agency does not have anything in mind at this point, and is simply interested in practices the public may deem appropriate.

For the reasons discussed above at pages 9-12, the first two potential alternatives (uniform numeric-based standards and/or technologies) are wholly inappropriate in the hardrock mining arena. Measures that are feasible and appropriate at one hardrock mining site may be, and usually are, infeasible and inappropriate at another site due to differences in minerals being mined, mining technologies, soils, hydrogeology, climate, precipitation rates and a host of other site specific factors. As discussed above at pages 10-12, this has been recognized by

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[35]See 40 C.F.R. Part 440.

[36]See 40 C.F.R. § 268.42.

[37]See 40 C.F.R. §§ 268.40, 268.48.

[38]See 60 Fed. Reg. 50804 et seq. (Sept. 29, 1995).

EPA, the National Academy of Sciences, the western States, and by BLM itself in the current 3809 regulations.

In addition, as stated in a recent letter from the Western Governors' Association to BLM,[39] use of technology-based standards "may result in over-regulation for the sake of regulation rather than for the results." That is, by requiring all operators to attain specific numeric criteria or to use specific technologies, at many (probably most) sites, operators will be achieving results that are greater than needed to assure protection of public lands and the environment. This would be exemplified by a technology-based standard that requires an operator to spend an extra $100,000 to reduce emissions of contaminant "X" from 1 ppm to 1 ppb even though emission of 1 ppm will not harm the public lands.

For this very reason, uniform technology-based standards are inconsistent with the "unnecessary or undue degradation" standard in § 302(b) of FLPMA. This standard reasonably implies that BLM may protect only against degradation, not harmless environmental emissions or impacts; it also implies that some amount of degradation is allowable at sites being mined. The words "undue" and "unnecessary," in turn, mean that, to be regulated, degradation being caused at a site must be more than would normally occur to recover the minerals at that site.[40]

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[39]WGA letter, supra note 7.

[40]Statutes such as the Clean Water Act, the Clean Air Act, and RCRA, pursuant to which EPA has established "national" (continued...)

Technology-based standards, on the other hand, presume that any impact or emission is causing harm to the public lands -- which is not necessarily the case at most sites -- and that such impact is always unnecessary or undue -- again, a fact that is not necessarily the case. A given amount of degradation involved in a mining operation in an alpine environment, where it is necessary to construct miles of roads, might be undue in an arid environment that is easily accessible.

Flexible site-by-site BMP-based standards would, on the other hand, not necessarily be incompatible with an "unnecessary or undue degradation" standard, so long as the measures to be taken at a given site were geared to what is really at that site. But since this is the type of standard already employed by the 3809 regulations, no change is needed to use such BMPs.

We also note that many States have adopted technology-based standards appropriate to the types of hardrock mining facilities and the hydrogeologic and climatic conditions present in their States. Thus, as discussed earlier at pages 15-20, Nevada imposes detailed design and operating standards with respect to all hardrock mines to protect surface water, groundwater, and wildlife. These include liner, netting, rinsing, and leachate collection requirements, as well as numeric limits on the contaminants that can reach surface water and groundwater. These requirements, which also apply on BLM lands, are

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[40](...continued)
technology-based standards, do not apply an "unnecessary or undue degradation" standard of protection.

appropriate for mines located in Nevada but may be inappropriate or infeasible elsewhere. This point is emphasized by EPA in its 1997 report discussing the comprehensiveness of Nevada's regulatory program.[41] There, EPA notes that "[i]n regulating the design, operation and closure of tailings impoundments [t]he State of Nevada uses to [its] advantage the low precipitation, high evaporation, and relatively deep groundwater typical throughout the state. This would be extremely difficult for . . . federal regulations to enact d[ue] to the varied environmental conditions found throughout the United States."[42]

Newmont Gold is also concerned with the statement in the April 4 NOI that BLM is considering technology-based standards "for the conduct of hardrock mining." We would vigorously oppose any attempt by BLM to dictate which minerals may be mined, where on the public lands they may be mined, and the actual production activities that must be utilized. That, in our view, would be contrary to our rights under the General Mining Law to locate and mine locatable minerals on BLM lands. Although BLM may reasonably regulate production activities to prevent unnecessary or undue degradation, it may not prohibit production or particular production methods.

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[41]U.S. Environmental Protection Agency, Office of Solid Waste, Nevada Gold Cyanide Mill Tailings Regulation (Feb. 1997).

[42]Id. at § 5.2 (emphasis added).

VI. Existing Performance Standards Are Adequate To Protect The Public Lands

The April 4 NOI requests comment on whether BLM should revise the current 3809 regulations to incorporate "performance standards" that "address[] such areas as revegetation, contouring and hydrology . . . ." 62 Fed. Reg. at 16178. In written materials distributed at the May 1997 public scoping meetings, BLM defines the term "performance standards" as "standards based on outcome, or as an alternative, standards that prescribe the manner and method of accomplishing outcomes." See Scoping Information at 9. The implicit assumption underlying BLM's request for comment is that the current 3809 regulations do not contain, or incorporate through State laws, such performance standards. That, however, is simply not true, as we discuss below.

A. Performance Standards Based on Outcome

Performance standards that require attainment of overall environmental and reclamation outcomes are certainly appropriate in the hardrock mining arena. And in fact, the current 3809 regulations contain adequate and appropriate outcome-related performance standards, including standards applicable to contouring, hydrology, and revegetation.

Thus, the 3809 regulations require that all operations be carried out to prevent "unnecessary or undue degradation" of the public lands. 43 C.F.R. § 3809.0-1. To attain this outcome-related performance standard, operators must reclaim disturbed

areas and comply with federal and State environmental laws. Id. §§ 3809.0-5(k) & 3809.2-2.

To satisfy the reclamation requirement, operators must comply with a number of outcome-related performance standards, including standards relating to contouring and vegetation. Among other things, operators must: (a) "reshap[e] land disturbed by operations to an appropriate contour", id. § 3809.0-5(j); (b) "revegetat[e] disturbed areas so as to provide a diverse vegetative cover," id.; (c) undertake "[m]easures to control erosion, landslides, and water runoff," id. § 3809.1-3(d)(4)(ii); (d) take "[m]easures to isolate, remove, or control toxic materials," id. § 3809.1-3(d)(4)(iii); and (e) "[r]ehabilitat[e] . . . fisheries and wildlife habitat[s]," id. § 3809.1-3(d)(4)(v).

The existing 3809 regulations also contain outcome-related performance standards applicable during the conduct of mining operations. In addition to complying with all federal and State environmental laws (see 43 C.F.R. § 3809.2-2), the operator must: (a) remove or treat "[a]ll garbage, refuse or waste" to "minimize, so far as is practicable, its impact on the [public] lands," id. § 3809.2-2(c); (b) "prevent adverse impacts to threatened or endangered species, and their habitat," id. § 3809.2-2(d); (c) refrain from disturbing cultural or paleontological resources, id. § 3809.2-2(e); and (d) "maintain [all] structures, equipment and other facilities in a safe and orderly manner," id. § 3809.3-5.

The Nevada environmental and reclamation regulations incorporated into the 3809 program contain further appropriate outcome-related performance standards. Thus, pursuant to Nevada's reclamation regulations, all sites must be reclaimed in a manner "which ensures public safety, encourages techniques to minimize adverse visual effects and establishes a safe and stable condition suitable for the productive post-mining use of the land." NAC § 519A.315(1).[43] To achieve this standard, operators must, among other things: (a) seal or secure shafts, tunnels and adits, NAC § 519A.315(3); (b) plug drill holes, id.; and (c) "[l]eav[e] slopes in a structurally stable condition" that is "resistant to excessive erosion and is structurally competent to withstand normal geologic and climatic conditions without significant failure that would be a threat to public safety and the environment," id. § 519A.315(3)(d) and (4). The operator also must revegetate disturbed areas to establish "vegetation productivity comparable to that growing on the affected lands" prior to mining or "which is consistent with the post-mining use of the land." NAC § 519A.330(1)(a).[44] The operator also must "minimize loading of sediment to surface waters during . . .

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[43]See also NAC § 519A.075 ("Reclamation" means actions "to shape, stabilize, revegetate or otherwise treat the land in order to return it to a safe, stable, condition consistent with the establishment of a productive post-mining use of the land and the safe abandonment of a facility in a manner which ensures the public safety, as well as the encouragement of techniques which minimize the adverse visual effects").

[44]See also NAC § 519A.080 ("Revegetation" means "the establishment of the pre-exploration or pre-mining vegetation or a comparable vegetative cover").

operation[s] and reclamation," see NAC § 519A.270(12), NAC § 519A.265(6); and prevent "excessive erosion" from reclaimed areas, NAC § 519A.275(4).

The Nevada mining regulations contain further outcome-related performance standards. Surface waters and groundwaters cannot be degraded below specific numeric limits. See pages 17-18 above. In addition, after operations cease, open pit mines must be "left in a manner which minimizes the impoundment of surface drainage and the potential for contaminants to be transported and degrade" surface waters or groundwater. NAC § 445A.429(2). Further, bodies of water that result from mine pits penetrating the water table may not be left in a condition that "has the potential to degrade the ground waters . . . [or] affect adversely the health of human, terrestrial or avian life." NAC § 445A.429(3). Spent ore heaps and tailings impoundments must, upon termination of use, be stabilized so as to inhibit the migration of any contaminants that could degrade groundwaters and surface waters. NAC §§ 445A.430 & 445A.431. In addition, all waste rock and overburden must be tested for acid-generating potential. If rock or overburden is potentially acid-producing, it must be disposed of in a manner to minimize the formation of acid and to ensure that any resulting acid drainage will be captured and appropriately managed.[45]

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[45]See, e.g., Nevada Division of Environmental Protection, Waste Rock and Overburden Evaluation (Sept. 1990); Nevada Division of Environmental Protection, Meteoric Water Mobility Procedure (May 1996).

The result is that, as discussed in Part III above, there are no significant environmental or reclamation problems on public or private lands in Nevada, and there is no need for additional performance standards relating to contouring, revegetation, hydrology, or any other area. Among other things, contrary to comments made by the Mineral Policy Center at the public scoping meetings, there is no need for a performance standard based on levels of contaminants in "soils" during or after operations. Soils in areas where hardrock mining occurs have naturally high levels of heavy metals; that is why mining is occurring in the area. These areas generally are also far from population centers. So long as groundwater is adequately protected (as it is under the current regulations), and areas are secure from public access, there is no need to have "soil" standards for active operations. After closure, of course, existing reclamation standards already ensure that the entire site (including any contaminated soils) will be reclaimed so as to ensure long-term public health and safety.

B. **Performance Standards that Prescribe the Manner and Method of Accomplishing Outcomes**

In contrast to outcome-related performance standards, uniform standards that prescribe the manner and method of accomplishing outcomes are not appropriate for hardrock mining operations. As discussed previously, the diversity of minerals, mining techniques, and hydrogeological and climatic settings make such "one size fits all" standards unworkable. Instead, as

recognized by the current BLM 3809 regulations and the Nevada reclamation regulations, operators must have flexibility to achieve outcome-related performance standards in the manner best suited to each particular mine. It is simply unrealistic to expect that at every mining site particular slope gradients can be achieved to stabilize waste rock piles, that backfilling will be technically feasible or appropriate, that a particular type of vegetation will flourish, or that potential acid-generating rock can be managed in a particular manner.

At most, BLM might consider "manner and method" standards that provide a range of possible means of achieving an outcome-related performance standard, but which do not mandate that any or all such methods be utilized. That is the approach taken (quite successfully) by the Nevada regulations. See NAC § 519A.345. Thus, these regulations allow the regulators, if appropriate, to require certain measures without mandating their use in all, or any, individual cases.

At the May 22 scoping meeting in Washington, D.C., representatives of the Mineral Policy Center scoffed at such standards, and labeled the Nevada reclamation program as "voluntary" and therefore inappropriate. Make no mistake about it, there is nothing <u>voluntary</u> about the Nevada or the current BLM program. Operators must have reclamation permits and approved reclamation plans prior to beginning operations. The fact that the "means and methods" performance standards are discretionary makes the program workable and successful, since

outcome-related performance standards can be achieved in a manner appropriate to each particular site.

c. **Backfilling Open Pits**

In written materials distributed at the May 1997 scoping meetings, BLM asked for specific comment on the advisability of adopting a reclamation performance standard dictating that open pits must be backfilled. As we now discuss, such a mandatory performance standard would be inappropriate in the hardrock mining arena.

As BLM must be aware, the necessity, feasibility, and appropriateness of backfilling open pits is dependent on site-specific circumstances. In many cases, backfilling is an unreasonably expensive or technically infeasible reclamation alternative that, if mandated, would preclude mining in the first place. This has been recognized by the National Academy of Sciences, which estimated that "to restore the original contour where massive ore bodies have been mined by the open-pit method would incur costs roughly equal to the original costs of mining."[46] The Academy further concluded that, "such backfilling of a large open pit would be of uncertain environmental and social benefit . . . ."[47] Newmont Gold's experience bears out the Academy's findings. In connection with preparation of an EIS relating to its Twin Creeks mine, Sante Fe Pacific Gold

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[46]National Academy of Sciences, supra note 5, at xxviii.

[47]Id.

Corporation (which is now owned by Newmont Gold) estimated that the cost of backfilling could exceed $100 million and that the backfilling process would take decades to complete.

Moreover, backfilling effectively precludes future mining of the open pit. This is of particular importance to precious metals producers such as Newmont Gold. Given the price of gold, as well as the continuous development of new mining and beneficiation techniques, it may be economically desirable and feasible in the future to mine areas of an open pit that cannot now be economically or feasibly mined. We would not want to be deprived of that opportunity by an arbitrary requirement always to backfill open pits.

Additionally, in many cases, backfilling would cause more environmental harm than good. Filling a pit with waste rock will allow groundwater to contact minerals in the rock, thus increasing the potential for degraded groundwater. Moreover, the actual movement and deposit into the pit of waste rock will result in potential safety problems.

Protection against physical hazards posed by open pits often can be achieved by less expensive means than backfilling, such as fences and signs. Nevada ensures that non-backfilled open pits do not become repositories for mine waters that may be harmful to humans, wildlife, or the environment. Pursuant to NAC § 445A.429(3), bodies of water that result from mine pits penetrating the water table may not be left in a condition that "[h]as the potential to degrade the ground waters . . . [or]

affect adversely the health of human, terrestrial or avian life." If modeling indicates that waters may be potentially harmful, operators must develop a plan to treat the waters or take other steps to protect human health, wildlife, and the environment.

This is not to say that backfilling is never appropriate. However, it is not always, or even usually, a feasible and appropriate alternative, and it often would result in a net environmental detriment. As such, as under the current 3809 regulations, a performance standard mandating backfilling is inappropriate.

D. **Protection of Surface Water and Groundwater Quality**

The written materials distributed by BLM at the May 1997 scoping meetings also request comment on whether BLM should promulgate performance standards for the protection of surface water and groundwater quality. The answer, in a word, is no.

Historically, it is the States and the federal EPA that have regulated releases of contaminants to surface waters and groundwaters. These entities have promulgated extensive technology- and water quality-based regulations to ensure protection of all waters. Thus, as BLM is aware, EPA has promulgated technology-based effluent limitations to protect surface waters from discharges of process waters and mine drainage from ore mining and dressing facilities. See 40 C.F.R. Part 440.

Nevada has gone even further in protecting surface waters and groundwaters. Thus, as discussed earlier, in areas of the

State where annual evaporation exceeds annual precipitation (such as the area where Newmont Gold's facilities are located), the Nevada regulations require facilities to achieve zero discharge to surface water. NAC § 445A.433(1)(a). Moreover, with minor exceptions, groundwater quality cannot be lowered below drinking water standards, and the concentration of WAD cyanide in groundwater cannot exceed 0.2 mg/l. NAC §§ 445A.424(1) & 445A.424(2). Facilities must also draw up and implement a program designed to monitor the quality of all groundwater and surface water that may be affected by the facility. NAC § 445A.440. These requirements are in addition, of course, to the specific design requirements for ponds, pads, impoundments, and tanks discussed earlier.

BLM has always recognized the primacy of States and EPA in this area by incorporating these agencies' relevant environmental regulations into the 3809 program. See 43 C.F.R. § 3809.0-5(j); id. § 3809.2-2. Indeed, it is doubtful that BLM has the authority, under § 302(b) of FLPMA, to promulgate "environmental" performance standards related to discharges to surface waters and groundwaters. Section 302(b) merely allows BLM to prevent "unnecessary or undue degradation" of the public lands. By contrast, Section 603(c) of FLPMA, which governs lands recommended for wilderness area designation, directs the

Secretary to:

> "take any action required to prevent unnecessary or undue degradation of the lands and their resources or to afford environmental protection." Id. (emphasis added).

Thus, when Congress wanted to give BLM the authority to promulgate "environmental" standards, it said so explicitly.

In any event, regardless of BLM's authority, it would simply be a waste of BLM resources to engage in the lengthy and time-consuming process of second-guessing the EPA and States, by developing water quality or discharge standards different from those already developed by agencies with more expertise in such matters.

E. Waste Dumps, Tailings Ponds, and Leach Pads

BLM has also requested comment on whether it should develop performance standards relating to operating conditions and the final appearance of waste dumps, leach pads, and tailings ponds. Again, in our view, given the site-specific nature of mining facilities, uniform standards dictating the means or methods of achieving desirable outcomes are inappropriate. What may be appropriate operating conditions for a leach pad in Nevada may be inappropriate in a wetter climate such as South Carolina.

In any event, as we have discussed throughout these comments, the State of Nevada regulates in detail the operation and closure/reclamation of waste dumps, leach pads, and tailings impoundments. See pages 15-20 above. These regulations are incorporated into the current 3809 regulatory program. As such,

at least in Nevada, there is no need for new or additional BLM regulation.

VII. Any Revisions To 3809 Must Emphasize Coordination With State Regulatory Programs

The April 4 NOI states that "[t]o ensure that [FLPMA's] purpose of avoiding unnecessary or undue degradation is achieved, BLM would adopt rules that would minimize duplication and promote cooperation among regulators." 62 Fed. Reg. at 16178. Newmont Gold is very pleased that, by these terms, BLM has acknowledged that avoiding duplication and promoting cooperation with States are integral to FLPMA's purpose of preventing unnecessary or undue degradation, not just important general considerations for effective regulations. As discussed above at page 9, these goals are especially important because many operators, including Newmont Gold, engage in exploration and mining activities on mixed public and private sites. Such operators would be severely disadvantaged if subject to differing (not to mention inconsistent) State and federal regulatory programs, depending where on the site a given activity occurs. Moreover, even when operations take place exclusively either on public or private lands, operators can more easily learn and more efficiently and effectively comply with one set of regulations.

In materials passed out at the May scoping meetings, BLM expressed interest in receiving comments on how it should account for the variance among performance standards now used by

different States. In our view, variance among State laws should not be a concern, so long as the BLM program in a given State is adequate to protect public lands and the environment in that State. Thus, as discussed earlier, Nevada's regulatory programs are more than adequate to ensure protection in Nevada. If BLM determines after study that Colorado's programs are also sufficiently protective, it should not matter that operators in Nevada may have to comply with differing standards than those in Colorado. All that should matter is that the public lands within both Colorado or Nevada are adequately protected. After all, given the diversity among mining sites in different locations, it is not surprising that different States would impose differing standards.

In this regard, we disagree strongly with comments made by Mineral Policy Center representatives at the May 22 scoping meeting that, even if a particular State's law (such as Nevada's) is adequate to protect the environment and the public lands, BLM should nonetheless promulgate national standards to ensure a floor of protection below which no State could fall. Newmont Gold personnel are familiar with the Nevada regulations. Any new "national" BLM standards might (and probably would) be duplicative of or inconsistent with the Nevada program, and would require additional expense to learn and achieve compliance. If there is no need for such new standards in Nevada, then there should be none. At best, if BLM determines that a particular State's laws are inadequate, then BLM should promulgate new

regulations applicable only to operators in that State that are tailored to the types of mines and practices in that State.

VIII. As Part Of The EIS Process, BLM Must Consider All Reasonable Alternatives, Including The No-Action Alternative

As discussed in Part III, we believe that BLM should hold the EIS process in abeyance unless and until it determines that the current 3809 program, in conjunction with other applicable State and federal laws and regulations, is deficient is some significant respect. However, if and when the EIS process does go forward, BLM must ensure that it "[r]igorously explore[s] and objectively evaluate[s] all reasonable alternatives, and for alternatives which [are] eliminated from detailed study, briefly discuss[es] the reasons for their having been eliminated." 40 C.F.R. § 1502.14(a).

As discussed earlier, we are greatly handicapped in our ability at this time to suggest alternatives that should be considered by BLM, since we do not know what, if any, current regulatory proposals the Agency has in mind and what, if any, deficiencies it perceives in the current regulations. That is why further scoping comments should be solicited from the public after BLM has a more concrete proposal in mind.

Nonetheless, in evaluating the need for and potential impacts of any regulatory changes to Part 3809, BLM should at least consider the following alternatives:

- The No-Action Alternative. Under 40 C.F.R. § 1502.14(d), BLM must rigorously examine the alternative of taking no action. This means, of course, that BLM must determine the environmental, socioeconomic, and other impacts resulting from the existing 3809 regulatory program when administered (as it is) in conjunction with all applicable State and other federal laws and regulations. BLM should give special attention to the no action alternative, as it has an important benefit: both operators and BLM are familiar and already comply with the existing program, and hence need not spend additional resources to learn and implement a new program.

- Bolster BLM Resources. A second reasonable alternative BLM should consider is retaining the existing 3809 program while boosting resources available to BLM for enforcement and for reviewing plans of operation. It may well be the case that, even if there are deficiencies found in the current program, the deficiencies derive from lack of funding, not inadequate regulatory provisions. If so, the solution is to increase funds, not dismantle a soundly crafted regulatory program.

- Deference to States and Federal Agencies. A third reasonable alternative would simply be to require operators to comply with existing State and federal environmental and reclamation regulations. These regulations contain both

technology-based and performance standards applicable to mining and reclamation. Evaluation of this alternative will require an assessment of whether State and other federal regulations are adequate to protect public lands, even without any substantive 3809 regulations. This alternative avoids any problems with duplicativeness and consistency among competing regulatory programs.

- Deferral to States with Comprehensive Regulatory Programs. A fourth alternative warranting consideration would be for BLM to evaluate the adequacy of existing State laws and regulations and to tailor its 3809 regulations on a state-by-state basis.[48] Under this alternative, BLM would defer to States that had comprehensive environmental and reclamation regulatory programs for mining operations on public lands. Nevada is an excellent example of a State with fully adequate environmental and reclamation regulations governing mining operations.

- Grandfather Existing Operations. A fifth alternative is to grandfather existing mining operations. Mining operations now underway should not have to be retrofitted to comply with new regulations, especially where such operations are

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[48]Agencies preparing an EIS for a major federal action are encouraged to evaluate proposals and their alternatives on a geographical basis, such as region-by-region or state-by-state. 40 C.F.R. § 1502.4(c)(1).

not causing harm to public lands and where the decision to go forward at a particular site was based on the economics of complying with existing 3809 regulations.

- Exploration Activities Affecting Fewer than Five Acres. Regardless of what alternative is chosen for major operations, BLM should evaluate retaining the existing notice-level operations program for exploration activities. As discussed above, notice-level exploration activities by their very nature do not cause significant surface disturbance. Moreover, BLM has a broad array of authority over notice-level operations to ensure that such operations do not cause unnecessary or undue degradation and that affected lands are reclaimed.

- Remining. A seventh alternative BLM should consider is to waive otherwise applicable 3809 requirements for remining operations, because such operations can result in the remediation of hazards at inactive mine sites without the expenditure of public funds. The concept of remining is relatively simple. Given advances in technology, it may be economically worthwhile for a mining company to extract new ores from a historic mining area, or to rebeneficiate, reclaim, or otherwise reprocess tailings, rock, and other byproducts of a historic site. As part of the remining process, the mining company would create a net environmental

and safety benefit at the site. Waiving otherwise applicable 3809 regulations would create an incentive for remining operations.

These are the alternatives we can identify at this stage, given the limited information provided in the April 4 NOI. Again, we encourage BLM to entertain further comments as it begins to develop more concrete proposals.

IX. BLM Must Carefully Examine The Potential Impacts Of Any Regulatory Changes On Exploration And Mining Operations And On Local And Regional Economies

As the April 4 NOI notes, as part of the EIS process, BLM must evaluate the potential environmental, cultural, aesthetic, and socioeconomic impacts of its proposals and all reasonable alternatives. See 40 C.F.R. § 1508.8. The April 4 NOI further notes that among the impacts "tentatively identified for analysis in the EIS" are impacts to exploration and mining operations and to local and regional economies. 62 Fed. Reg. at 16178.

We of course agree that BLM must assess the impact of any new proposed regulatory program or alternatives on exploration and mining activities. We wish to make sure, however, that BLM appreciates all the different potential impacts that can occur. These include negative impacts to production and exploration activities caused by the following: (a) increased delays in securing permits, particularly if there are changes in regulation governing notice-level exploration activities; (b) increased

costs of complying with new regulatory initiatives; (c) costs and administrative burdens (on both the industry and BLM) resulting from inconsistent or duplicative federal and State regulations, particularly for operations on mixed public and private lands; (d) costs and burdens of altering or retrofitting existing facilities to comply with new regulations; (e) impact of new regulations on the incentive to remine historic sites; and (f) costs and feasibility of complying with uniform design, technology, and performance standards as opposed to flexible site-by-site requirements, at each different type of mine in each different hydrogeologic and climatic setting.

We also agree that BLM must assess the impact of alternatives (including the no action alternative) on local and regional economies. Regulatory changes that impose additional burdens on exploration activities or otherwise increase the cost of mining operations could lead to cuts in mining jobs. Such a loss of mining jobs could have far-ranging and devastating effects on local economies that depend on income from miners. Cuts to mining jobs would have an especially pernicious effect on small businesses that rely on mining employees' purchases. Finally, it is important to focus on local communities potentially affected, rather than "national" economic impacts, since mining is concentrated in particular communities in certain regions of the country.

We hope these comment are useful to the Agency. We urge members of the 3809 Task Force to maintain a continuing dialogue

with Newmont Gold as the 3809 initiative progresses, and we are of course available to assist the Task Force in its efforts.

Respectfully submitted,

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ATTACHMENT A

NEVADA GOLD CYANIDE MILL TAILINGS REGULATION
A Comparison of State Design and Operating Standards to the Uranium Mill Tailings Standards

February 1997

U.S. Environmental Protection Agency
Office of Solid Waste
401 M Street, SW
Washington D.C. 20460

Disclaimer

Any mention of company or product names is not to be considered
an endorsement by the U.S. Government
nor the Environmental Protection Agency.

Table of Contents

1. PURPOSE

1.1 Purpose

The purpose of this report is to evaluate current State of Nevada gold cyanide mill tailings facility design, operati and closure regulations, compare them to the uranium mill tailings design and operating regulations promulgate 40 Code of Federal Regulations (CFR) 192, and compare each to methods used at three gold cyanide mill faciliti in the State of Nevada. Nevada was selected for the comparison because it is the nation's largest producer of gold has the largest number of gold cyanide mill facilities, and has promulgated the most advanced cyanide mil tailingsfacility regulatory framework. This report is intended to enhance the Environmental Protection Agency' (EPA) understanding of how Nevada regulates its gold cyanide mill tailings. Attachment 1 provides a list of references and other materials consulted during preparation of this report.

1.2Introduction

Conventional cyanide tank leaching methods are used on gold ores with adequate grade (gold content per ton) anc tonnage (quantity of ore available for leaching) to justify the complexity of design, and higher capital cost as compared to cyanide heap leach methods. A gold mill can be divided into 4 major areas: ore mining and size reduction, leaching, gold recovery, and tailings disposal. Once the ore is removed from the ground it is crushed ir to 3 stages to prepare the ore for grinding. The number and types of crushing stages is dependent on the hardness the ore and the ore feed size required for the grinding mill. Rod mills and balls accept ore crushed to less than 1 t 1-1/2 inches, and autogenous and semi-autogenous mills (where the ore acts as all or part of the grinding media) c accept ore as coarse as 6 inches in diameter. Grinding is usually done wet using recycled mill water from the tailings impoundment, and additional cyanide is typically added to the mill water in order to begin leaching as soo as possible.

The product from the grinding circuit goes through a size classifier (i.e. vibrating screens, hydrocyclones) to ensu that it is fine enough to liberate as much gold as economically possible, typically 60 to 80% finer than 200 mesh (74 microns). The ground ore and mill water (pulp), is leached by mechanically agitating it in a series of tanks. During the agitated leach, additional cyanide is added along with air and/or oxygen which are necessary catalysts for the dilution of gold and silver.

The dissolved gold can be recovered from the gold-bearing cyanide solution (pregnant solution), by either adsorption on to activated charcoal or precipitation with zinc dust. When activated charcoal is used it can be adde during the leach (carbon-in-leach), or after leaching (carbon-in-pulp). Once the dissolved gold is removed from solution, the mill tailings and resulting "barren solution" are pumped to the tailings impoundment. The gold is chemically stripped from the carbon, electrowon from the solution, and melted into impure bars, called doré. Whe zinc dust is used to recover gold from solution, the tailings are separated from the pregnant solution and washed using a sequence of thickeners and wash water. This is known as counter-current decantation. The washed tails a pumped to the tailings impoundment. The pregnant solution is clarified by filtration, deareated in a vacuum tower and mixed with zinc dust which precipitates the gold by electrochemical deposition. The now barren cyanide solution is returned to the leach and wash circuits.

The design and operation of the tailings impoundment is extremely important, because it serves two purposes: (1) a settling basin for the mill water which is then recycled to the grinding and leaching circuits; and (2) as the final waste depository for the mill tailings. The size of the tailings impoundment is based upon the total expected volun of tailings produced over the life of the mine, the settling time required to separate the mill water from the tailing the volume of mill water to be kept on hand, and the volume possible from a 24 hour- 100 year storm event.

Wastes generated from gold cyanide milling operations includes mill tailings, which contains small quantities of

spent cyanide solution; residual cyanide; and solubilized metal-cyanide complexes.[1] When the supply of ore is exhausted, the final step in the life of a gold cyanide milling facility is closure. Gold cyanide milling facilities must be formally closed with certification that no wastes have been released to the environment, nor will the remaining wastes degrade the waters of the State in the future. Within the State of Nevada, facility closure requirements are in the forefront of the design and operating standards prior to the commencement of mining and milling operations.

[1] For a more in depth discussion of the gold cyanide milling process, see EPA *Technical Resource Document on Extraction and Beneficiation of Ores and Minerals for Gold* (EPA 530-R-94-013)

2. THE NEVADA CYANIDE MILL TAILINGS REGULATORY FRAMEWORK

2.1 Overview

The State of Nevada has promulgated an extensive set of regulations that govern the design, operation, and closure of mining facilities including those that produce cyanide mill tailings. In addition, the Nevada Department of Conservation and Natural Resources Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation has issued guidance documents and memoranda that govern the design, operation, and closure of gold cyanide milling facilities. In general, due to the clarity of the regulations, only a few guidance documents have been required to ensure the design and operation of the facilities meets the intent of the regulations. All of these requirements are intended to address the environmental, safety, and health concerns associated with cyanide leaching. Among these concerns are the following.

- First, the gold ore itself contains hazardous constituents such as antimony, arsenic, mercury, thallium, and sulfur. During active leaching the cyanide solution mixes with and solubilizes some of these hazardous constituents.
- Second, the cyanide leaching solution which is present in both the leach circuit and the tailings impoundment contains free cyanide and metallo-cyanide complexes of copper, iron, nickel, and zinc, as well as other constituents in the ore that are mobilized during leaching.
- Finally, the mill tailings ~~are considered to be waste as they enter the~~ tailings impoundment, and the liners used in the tailings impoundment are considered to be waste at the closure of the facility.

Much of the process material and the waste generated during the leaching process may be exposed to the environment, with a potential for contaminant transport. For example, an improperly designed tailings impoundment could result in dam failure or a breach in the liner. The release of cyanide solution and mill tailings from a tailings impoundment may occur during ~~snowmelt and/or heavy~~ storms unless the impoundments are designed to hold the additional volume. Further, these constituents may degrade surface and groundwater, soil(s), and/or air quality during and after the cyanide leaching process. Birds and other animals that come into contact with the tailings impoundment and holding ponds may also be contaminated. The major contamination threat during and after cyanide leaching is the release of cyanide and/or soluble metal bearing solution into the surface and groundwater. Nevada's regulatory framework focuses on the prevention of these types of releases.

2.2 State Mining and Reclamation Permits

A basic principle of the Nevada regulations prevents the operation of any facility until State mining and reclamation permits are granted. The contents of the permit applications require the permittee to meet minimum design standards and perform advance planning to prevent degradation of waters of the State. For facilities in existence prior to September 1, 1989, the regulations require the operator to obtain a permit by no later than September 1, 1992. The permit requirement regulations are found in the Nevada Administrative Codes (NAC) as follows:

> **NAC 445.390 Permit required; operation under an existing permit.**
> 1. All facilities in existence on September 1, 1989, must obtain a valid permit within 3 years after September 1, 1989.
> 2. After July 1 , 1990 no person may begin construction of a new process component, or materially modify an existing process component, without first obtaining a permit or permit modification, or the concurrence of the department that the construction or modification is in conformance with the existing permit.
>
> *Facility* - "all portions of a mining operation, including, but not limited to, the mine, waste rock piles, or piles, beneficiation process components, processed ore disposal sites, and all associated buildings and structures. The term does not include any process component or non process component which is not used for mining or mineral production..." (NAC 445A.359).

This leads to the second basic principle of the Nevada regulations: cyanide leach operations are regulated by evaluation of a process component of the facility.

> *Process Component* - "a distinct portion of a constructed facility which is [or can be] a point source. (NAC 445A.375)[2]

Thus, Nevada regulates point sources throughout the mining and milling operation, and requires that an operator who chooses cyanide leaching to recover gold from ores to clearly identify point sources for all related operations.[3] Clearly identified point sources for conventional gold cyanide mill operations require minimum design criteria including consideration for storm events and zero discharge for process components where annual evaporation exceeds annual precipitation. The regulations provide that a facility may not degrade the waters of the State and should prevent releases of contaminants that may degrade the State waters.

2.2.1 Contents of the Mining Permit Application

The requirements for mining permit applications are outlined in NAC 445A.394. The application ensures that the responsible parties are clearly identified and that the design and operation of the facility is appropriate for the physical, geological and hydrogeological conditions at the site. The application must included the following:

(1) The owner, operator, authorized agent, and legal structure of the applicant;

(2) Documentation that the local board of county commissioners has been provided notice of the proposed development;

(3) The processing rate for the facility;

(4) An area assessment, including hydrogeological, geological, topographical evaluations as described in NAC 445A.395,

(5) A meteorological report, as described in NAC 445A.396, including historical monthly averages for rainfall, 24 hour storm events with interval of recurrence, temperature variation, and characterization of waste rock, overburden, and ore samples for their potential to release pollutants;

(6) An engineering report, as described in NAC 445A.397, stamped by a Nevada registered Professional Engineer, including engineering plans showing all potential sources of release to the environment (extraction and beneficiation sites, waste rock disposal sites, mill tailings impoundment(s)); methods for control of storm water run-off; the existing geological and hydrogeological conditions beneath and adjacent to the site and the degree to which these conditions provide natural containment; fluid management system; preferential flow pathways and structural stability; a description of the liner material and installation of all tailing impoundments and ponds, including a description of the sub-base preparation; details of leak detection and site-monitoring systems; process schematics; and methods to be utilized for inspecting, testing and quality assurance and control. The information provided must be of sufficient detail to allow the NDEP to determine: 1) which of the potential sources are to be considered process components; and 2) that the design of the process components and

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[2] Nevada has the authority to implement the Clean Water Act NPDES program, which provides the definition of point source. The Federal NPDES program addresses point source discharges to waters of the U.S., which generally include only surface water. Nevada issues single permits that regulate (or prohibit) discharges to waters of the State, which include both surface and groundwater. Thus, the regulation of discharges to surface water in this paragraph correspond to Federal NPDES requirements, while the regulation of discharges to groundwater described here have no NPDES analogue.

[3] NAC 445A.397

monitoring system is sufficient to protect the waters of the State from degradation.

(7) A copy of the draft operating plan as described in NAC 445A.398, including a plan for manageme all process fluids; a monitoring plan (current water quality profile of ground and surface water wh... may be effected, monitoring locations, leak detection locations); emergency plan; a temporary clos plan; a tentative plan for permanent closure (procedures for characterizing and stabilizing mill tailii as they are generated and the estimated cost of implementation); and

(8) A report of the sample analysis required under NAC 445A.395 (meteorological report).

The requirements within the mining permit application force the permittee to consider and design the facility to accommodate existing site conditions. The design will minimize and control any releases from the process components, per minimum design criteria, as discussed later.

2.2.2 Contents of the Reclamation Permit Application

In addition to the mining permit, an appended reclamation permit is also required for existing facilities and prior the commencement of new mining activities.

NAC 519A.120 Time when obtaining of permit and payment of fees required.
1. The operator of each ... mining operation which is active on October 1, 1990, shall obtain the permit required by NRS...519A.200,...:
   (a) On or before October 1, 1993; or
   (b) Before abandonment of the ...mining operation, whichever occurs first.
2. The operator of each ...mining operation which becomes active after October 1, 1990, shall obtain the permit required by NRS...519A.200, ... before engaging in ... mining.

As in the mining permit application, specific items must be included in the reclamation permit application. The reclamation permit application clearly identifies the responsible party, a statement that the applicant assumes full responsibility for the reclamation of any surface area affected by the mining operation, and for mining operations public land (NAC 519A.150). The application must also include a complete reclamation plan, the estimated cost execute the reclamation plan, and a map depicting the area to be covered by the surety bond.

Specific to mill operations, the reclamation plan must include:[4]

1. A topographic map of the area of the operation depicting: ...the kinds of disturbances, including: Tailings impoundments;
2. The location of any surface water body within one-half mile down gradient of the operation;
3. An estimate of the number of acres affected be each type of disturbance;
4. A proposed productive post-mining use of the land;
5. A proposed schedule for initiation and completion of all reclamation activities;
6. The proposed methods to be used in reclaiming impoundments used during the operation;
7. A statement of any constraints on the estimated time to complete reclamation caused by the residual moisture content or physical or chemical qualities of impoundments;
8. The proposed revegetation of the land for its post-mining land use.

2.2.3 Permit Approval

[4] NAC 519A.270

Prior to approval, each application goes through an extensive review by NDEP, public hearings, and comment resolution as described in NAC 445A.400 though .409. In addition, the plan of operation must be approved by the appropriate federal agency(ies) and must be accompanied by surety bond which is acceptable to NDEP. Therefore, prior to the commencement of operations, the facility must meet the minimum design criteria to prevent degradation of the waters of the State, and have approved operating, emergency and reclamation plans in place.

2.3 Minimum Design Criteria

In general, the State of Nevada minimum design criteria "establish minimum contaminant control technologies and define site and operating conditions which must be evaluated. Based on site characterization, best engineering judgement will be applied to determine the degree to which designs must provide more or less protection through engineered containment." (NAC 445A.432)

This identifies the next basic principle of the Nevada regulations which is "Best Engineering Judgement."

> *Best Engineering Judgement* - "that decision *by the department*, which, after evaluating available alternatives and levels of technology presented by the applicant, results in an acceptable design for containing contaminants from a facility in order to protect waters of the State." (NAC 445A.354, *emphasis* added)

This means that NDEP establishes minimum contaminant control technologies and operating conditions that the applicant must meet, and then evaluates, based on best engineering judgement, the specific technology and design proposed by the applicant. For example, an operator may design a tailings impoundment to the minimum design criteria; however, if it is located where groundwater is near the surface, NDEP may require a liner system with a greater degree of containment. (NAC 445A.434)

As described below, Nevada regulations establish minimum design criteria for tailings impoundments, ponds, vats and tanks, and liners.

2.3.1 Tailings Impoundments

The Nevada regulations differentiate between a tailings impoundment and spent ore from heap leaching through the definition of a tailings impoundment.

> NAC 445A.381 **"Tailings Impoundment" Defined.** "Tailings impoundment" means a process component which is the final depository for processed ore discharged from a mill.

As stated in NAC 445A.436:

> (1) a tailings impoundment must utilize a system of containment equivalent to:
>
> Twelve inches of recompacted native, ~~imported, or amended~~ soils which have an in place recompacted coefficient of permeability of no more than 1×10^{-6} cm/sec; or
>
> competent bedrock of other geologic formations underlying the site which has been demonstrated to provide a degree of containment equivalent to paragraph (a.)
>
> (2) NDEP may require an alternate level of containment based on:
>
> (a.) the anticipated characteristics of the material to be deposited;
> (b.) the soil and geology at the site;
> (c.) the degree to which the hydraulic head on the liner is minimized;
> (d.) the extent and methods used to recycle and detoxify materials;
> (e.) pond area and volume; and
> (f.) the methods used to deposit the impounded material.

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> (e.) pond area and volume; and
> (f.) the methods used to deposit the impounded material.

water source due to depth or mineralization, and it is not economically or technologically capable to make it fit for human consumption;

2. The depth from the surface to ground water is greater than 200 feet and a minimum of 50 feet with coefficient of permeability of $1x10^{-6}$;

3. Conditions at the site or facility design specifications allow a lower level of containment while ensuring that the waters of the state will not be degraded, as demonstrated through a site or engineering assessment.

2.4 Tailings Dam Permit

The Nevada State regulations for Dams and Other Obstructions appear in NRS Chapter 535. In summary, "Any person who intends to construct, reconstruct or alter a dam that has a crest height 20 feet or higher, as measured from the downstream toe to the crest, or has a crest height less than 20 feet but will impound 20 acre-feet or more of movable material, must acquire a dam safety permit prior to construction." Any dam that doesn't meet the '20/20' criteria must still file a completed application form with the State Engineer's office prior to construction. The filing fee is not applicable unless a permit is required."[6]

"Although tailings are a mobile material, they are significantly more viscous than water. The tailings are normally transported as a slurry via pipeline to the pond where it is poured on top of older tailings deposit. The fluid and slimes either leach though the tailings or evaporate, leaving a semi-consolidated mass of tailing soils. Because there is a controlled inlet, it is not necessary to have a spillway on the structure as the material should never leave the embankment. A tailings impoundment is designed such that there is enough freeboard to accommodate the 100 year, 24 hour storm without overtopping. Also, most tailings facilities are built in raises. The Division (Nevada State Division of Water Resources) prefers downstream construction for the raises although centerline and upstream raises have been approved. In order for an upstream raise to be allowed, it must be proven to the Division that the tailings, which now will be part of the foundation for the raise, have consolidated, are not fully saturated and are suitable for the size of the raise. A liquefaction and slope stability analysis is required and acceptable factors of safety must be met. Because tailings dams are built to impound tailings only, no flood waters are permitted to enter the structure. This is accomplished by diversion channels collecting flows above the dam and returning them into their natural course downstream.

"The permitting of tailings impoundments is done independent of the Division of Environmental Protection however, the two agencies are concerned about the same items, i.e. liners, leak detection systems, foundation materials, slope stability and finally reclamation. Once the mine has gone into closure, the mining company is responsible for breaching the dam or otherwise rendering the dam incapable of impounding any mobile material. All monitor wells must also be plugged and abandoned according to state regulations."[7]

The design of a dam varies depending on the type of dam or impoundment, the size, seismic zone, and downstream and upstream hazards. Some analyses which may be required for the state engineer to evaluate the design are as follows:

(a.) Stability Analysis- including loading conditions at the end of construction, steady state seepage, and rapid drawdown; static loading with an acceptable factor of safety between 1.4 and 1.6 and greater; and pseudo-static loading with an acceptable factor of safety between 1.0 and 1.1 and greater;

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[6] Laws and Permitting Information Pertaining to Dams, R. Michael Turnipseed, P.E., Nevada Division of Water Resources, Page 2.

[7] Ibid, page 22

(b.) Submit calculations supporting the dam limiting height under static conditions;
(c.) Seepage Analysis-net flow and describe design features to provide lower seepage.;
(d.) Describe the various sections of the impoundment, if more than one, and how the tails will be allow- to drain and dry;
(e.) Describe the decant system;
(f.) Describe the drainage area and the system that will provide for drainage water to flow through or around the dam;
(g.) Runoff calculations;
(h.) Flood routing;
(i.) Storm design - 100 year 24 hours storm event;
(j.) Describe instrumentation to be used to detect settlement, alignment changes, seepage and downstrean uplift pressures;

Prior to construction, the state engineer must review the following to ensure they are included and sufficiently addressed.

(a.) Clearing and grubbing of the construction area;
(b.) Stripping of unsuitable material;
(c.) Foundation preparation/compaction requirements;
(d.) Embankment material, classification, quality control and compaction. Specify the minimum density c relative compaction;
(e.) Geomembrane and geotextile specifications, including placement;
(f.) Erosion protection;
(g.) Concrete, soil cement and roller compacted concrete design and specifications;
(h.) Material testing requirements - frequency and type of test.

The review of the geotechnical report by the division is essential to ensure that the proposed dam site is adequate f the structure, and should contain the following information.

(a.) Surface conditions of both the foundation and the borrow areas, and surficial geology describing characteristics of all surface deposits, particularly as it relates to permeability. Describe the history of earthquakes and specify maximum probable intensity;
(b.) Strength parameters and permeability of foundation and embankment materials;
(c.) Grain size distribution and classification of all materials used;
(d.) Identify all geological hazards and faults and their potential to rupture under the deposit;
(e.) Boring and test pit results, including competency of foundation and abutments to support the proposec structure;
(f.) Depth to water in the foundation and reservoir area;
(g.) Availability of materials, and describe laboratory and field testing of this material especially tests for water content, compaction characteristics and shear strength;
(h.) Describe the earthquake stability of the proposed construction materials, including resistance to liquefaction;
(i.) Soil properties of core, drain, filter and shell material;
(j.) If tailings are to be used as construction material, comment on the gradation, clay mineral content, and water content of the tailings slurry. Comment if the tailings will be separated into sands and slimes with only sands being used for dam construction, and if so, will cycloning be used. Discuss control of the phreatic line within the embankment and uplift pressures in the foundation soils downstream of the dam.

Drawings should also be submitted to include a vicinity and location; plan view of the watershed boundary, downstream hazard, dam and reservoir area; topographical map showing contours, survey ties from section corner to center crest of dam; cross section of embankment, axis, and maximum section; elevation of dam crest; slopes of upstream and downstream faces; details of erosion protection; dimensions and locations of all pervious, semi-pervious, and impervious materials; and reservoir area/capacity curve to the top of the embankment.

2.5 Monitoring and Releases to the Environment

The mining permit application must also include a description of the type, number and location of all sampling points used to monitor the quality of all surface and groundwater resources that may be affected by the facility. Based upon the site conditions and the process design, NDEP will determine the extent and complexity to which the permittee must monitor each process component. The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology (NAC 445A.440). As stated below, this is another basic principle of the Nevada regulations:

> "Systems designed to detect and control leaks from process components must be located at the interface of the process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment." (NAC 445A.442)

Per NAC 445A.441, a contaminant escaping primary containment does not result in immediate shut down of the affected process component. If NDEP determines that there has been a variation in a parameter or element which has the potential to degrade the waters of the State, then::

(1) The holder of the permit shall conduct and submit an evaluation to the department which:

- (a.) Identifies the source and escape pathways of the constituent(s) of concern;
- (b.) Determines the type, extent and ability of a system needed to contain or confine any migrating contaminant; and
- (c.) Identifies methods that can be employed to remediate the contamination during the continued operation of the facility or at permanent closure.

(2) The department shall, based on the information provided pursuant to subsection 1:

- (a.) Require immediate shutdown of the process component and the immediate initiation of cleanup activities;
- (b.) Allow continued operation of the process component that is the source of the constituent(s) of concern with concurrent cleanup activities;
- (c.) Allow continued operation of the process component which is the source of the constituent of concern while requiring the facility to continue to control the migration of the contaminant while cleanup activities are postponed; or
- (d.) Determine that no remedial action is warranted.

The determination as to whether or not the surface or groundwater have been degraded is based upon baseline data which must be collected prior to operation, and final monitoring requirements which the State of Nevada must establish. Regardless of the size or type of facility, State surface waters cannot be degraded below that allowed by Nevada Revised Statute (NRS) 445.253.[8] The quality of groundwater may not be degraded below State or federal drinking water standards, and Nevada has established maximum concentrations for Weak Acid Dissociable (WAD) cyanide of 0.2 mg/l. Additionally, NDEP may establish a numerical limit for any constituent in groundwater not otherwise regulated.[9]

While these limits will prevent degradation of the groundwater, NDEP may exempt all or a portion of a groundwater from the standards if it can be demonstrated that the impacted groundwater does not currently and will not (in the forseeable future) serve as a source of drinking water due to depth, location, a total dissolved solids concentration greater than 10,000 milligrams per liter, or is economically or technologically impractical to render fit for human consumption (NAC 445A.424 (2)).

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[8] NAC 445A.424 (1) (a)

[9] NAC 445A.424 (1) (b)

This basic principle regarding monitoring and releases to the environment can be summarized as follows:

(1) The process components are monitored at the interface between the constituent and the environment

(2) All releases to the surface or groundwater are regulated based upon degradation of the waters of the State, and not on the solution discharged;

(3) Surface waters cannot be degraded below that allowed by NRS445.25

(4) The groundwater may not be degraded below State or federal drinking water standards, and Nevada has established a maximum concentration for Weak Acid Dissociable (WAD) cyanide of 0.2 mg/l;

(5) NDEP may establish for groundwater a numerical limit for any constituent not regulated otherwise; and

(6) NDEP may exempt all or a portion of a groundwater from the standards if it can be shown that it doe not currently and will not serve as a source of drinking water.

In order to standardize the methods used to evaluate applicant's designs and prevent degradation of the waters of t State during operation, NDEP has issued the following guidance documents:

Monitoring Well Requirements: Established to ensure a representative sample of the groundwater is obtained, including seasonal changes.

Permit Limitations for Leak Detection Systems: Provides the maximum flow rate (quarterly and annually) which can be observed from a leak detection system. In the event the permit limitations are exceeded a sit specific evaluation must be conducted by the permittee to assess the need for any additional process component or site monitoring. This may result in the need to institute mitigation procedures to bring the process component back into compliance with the permit limitations.

Waste Rock and Overburden Evaluation: Used to determine the acid generating potential of the waste rock and overburden. This allows NDEP to determine if the placement/land disposal of the mine waste has the potential to degrade the waters of the State. The results of this testing satisfies a part of the requirement to determine if the waste rock/overburden can be disposed of outside of containment.

Meteoric Water Mobility Procedure: Established to standardize the method and improve the reproducibility of test results evaluating the potential of meteoric water to liberate certain constituents from mine rock. The results of this testing satisfies part of the requirement to determine if the waste rock/overburden can be disposed of outside of containment.

2.6 Termination of Operations and Closure

Per 445A.446, the permanent closure of a facility must be initiated when the design life of that process component is reached, or for a facility under a temporary closure, within 5 years of the issuance of a permit for temporary closure. For mill tailings, permanent closure is reached once the tailings have been characterized and stabilized so as to inhibit the migration of any contaminant that has the potential to degrade the waters of the State.[10] While not specified for mill tailings, this may also include spent ore limits for WAD cyanide of less 0.2 mg/l and a pH between 6.0 and 9.0.

> "Stabilized means the condition which results when contaminants in a material are bound or contained so as to prevent them from degrading the waters of the State under the environmental conditions that may reasonably be expected to exist at a site." (NAC 445A.379)

Once closed, the reclamation and revegetation activities described in the Reclamation plan must be initiated within 2 years after completion or abandonment of the mining operation, or within 3 years after a temporary closure (NAC 519A.285). Specific to operations which produce mill tailings, NDEP may, if appropriate, require an operator of a mining operation to reclaim dams for tailings ponds, and tailings impoundments as follows (NAC 519.345):

(1) Dams for tailings ponds:

  (a.) Covering with waste rock, topsoil or growth medium;

  (b.) Revegetation; and

  (c.) Breaching the dam or rendering it incapable of storing any mobile fluid in a quantity which could pose a threat to the stability of the dam or to public safety.

(2) Tailings impoundments:

  (a.) Regrading to promote run-off and reduce infiltration;

  (b.) Covering with waste rock, topsoil or growth medium;

  (c.) Revegetation; and

  (d.) Diverting run-on.

To assist the permittee in addressing revegetation and reclamation requirements, Nevada has also issued the document Interim Standards for Successful Revegetation.

Though not specific to mill operations, the final disposition of waste rock from mining is covered in the NDEP guidance document, Alternate Use of Mine Waste Solids - Disposal Outside of Containment. This document explains which tests must be performed and the standards to be met for uncontained disposal of solid wastes. Also, following permanent closure of a mining facility, slopes created or affected by mining operations must show slope stability comparable to that of adjacent areas. Draft guidance by the State of Nevada explains how the permittee must demonstrate that this requirement is met. Finally, while not specified for post-closure mill discharge, NDEP has also issued guidance on Monitoring and Analysis of Post-Closure Heap Discharge. The time required for post-closure monitoring of the facility depends on the particular site and process characteristics, but in no event may the time required exceed 30 years (NAC 445A.446).

2.7 Other Regulatory Interaction

Although the scope of this report only covers the Nevada regulatory framework, it should be noted that 80 to 90

[10] NAC 445A.431

percent of Nevada mining operations are located on Bureau of Land Management (BLM) or Forest Service land. Those agencies' applicable mining and reclamation regulations, found at 36 CFR and 40 CFR, respectively, apply operations on lands under their jurisdiction. Operations on federal lands must be conducted to "prevent unnecess or undue degradation" of the federal lands, according to the Bureau of Land Management regulations, which go design, operation, reclamation, bonding, monitoring, and remediation requirements. Currently, the BLM and For Service consider a State of Nevada operational permit adequate proof that all of their own requirements have beer met (Taff 1991). For example, Nevada's reclamation permit addresses specific closure procedures, revegetation a containment of all waste to prevent runoff and erosion. During reclamation activities, either BLM, the Forest Service, or Nevada assumes lead agency responsibility. The BLM and Forest Service have signed a Memorand of Understanding with the State of Nevada to establish coordination of their respective responsibilities.[11]

2.8 Summary of Nevada Regulations and Guidance

Attachment 1 lists the specific references which were reviewed in the preparation of this document, and Table 2.7-1 outlines the most recent regulations and guidance obtained from the State of Nevada. Table 2.7-1 is divided into design and construction; operation; and closure and reclamation requirements.

[11] October 24, 1996

Table 2-1 - Applicable Nevada State Regulations and Guidance For Mill Operations

DESIGN AND CONSTRUCTION	
Regulations	
445A.379	Stabilized Defined
445A.381	Tailings Impoundment Defined
445A.390	Permit required; operation under existing permit
445A.391	Application for permit: Preliminary meeting with representative of department
445A.393	Application for permit: Definition of site conditions, process materials, characteristics of waste and impacts
445A.394	Application for permit: Submission; contents
445A.395	Contents of application: Assessment of area of review
445A.396	Contents of application: Meteorological report; analysis of samples
445A.397	Contents of application: Engineering design report; specifications for fluid management system
445A.398	Contents of application: Proposed operating plans
445A.400-409	Application review by department, public hearing, comment resolution, and issuance of permit
445A.415	Granting of permit which allows lower level of engineered containment than required by minimum design criteria
445A.424	Limitations on degradation of water; exemptions
445A.426	Notice of Intent to commence active operation of process component
445A.431	Stabilization of tailings
445A.432	Minimum design criteria: Generally
445A.433	Minimum design criteria: Universal requirements; areas where groundwater is near surface; proximity of new process components to dwellings; liability for degradation of water
445A.435	Minimum design criteria: Ponds
445A.436	Minimum design criteria: Vats, tanks, and other containers which confine process fluids
445A.437	Minimum design criteria: Tailings impoundments
445A.438	Minimum design criteria: Liners
445A.439	Program required to control quality of construction of liner systems
445A.440	Monitoring: Site of facility
445A.442	Monitoring: Process components
519A.120-145	Reclamation Permits: Timing, Application, Duration
519A.165-210	Review of Reclamation Permit application, public hearings and comment resolution
519A.225-240	Reclamation Permit Fees
519A.245-280	Reclamation of Land: Contents of Reclamation Plan, Exemptions, Considerations, Productive Post-Mining use.
519A.350-385	Provisions of Surety
Guidance	
NDEP	Mine Plan - Plan of Operation for BLM and Reclamation - Permit Application for a Mining Operation for NDEP, April 199, Revision 0
NDEP	Monitoring Well Design Requirements, October 1990
NDEP	Waste Rock and Overburden Evaluation, September 14, 1990
NDEP	Application Requirements for Mining Operations, January 4, 1994
NDEP	Guidance Document for Preparation of Operating Plans for Mining Facilities, February 2, 1994
NDEP	Time Allowed for Review of Water Pollution Control Permit Applications, April 28, 1994
NDM	State and Federal Permits Required in Nevada Before Mining or Milling Can Begin, Revised 10/95
NDEP	Meteoric Water Mobility Procedure, May 3, 1996
NDEP	Contractor and Operator Certification of Exploration/Mining Operation Reclamation Cost Estimate

Table 2-1 - Applicable Nevada State Regulations and Guidance For Mill Operations (continued)

	OPERATIONS
Regulations	
445A.392	Application for permit: Construction or modification of process component
445A.416-420	Minor and Major modifications of existing permits and fees, transfer and renewal of permits
445A.424	Limitations on degradation of water; exemptions
445A.425	Process components in existence on September 1, 1989: Standards; additional monitoring
445A.427	Duties of holder of permit upon construction or modification of process
445A.429	Procedures required to prevent release of contaminants; requirements concerning impoundment
445A.441	Monitoring: Procedure upon variation in parameter or element being monitored
445A.443	Monitoring: Beneficiation process
445A.444	Examples of planned and unplanned temporary closures
445A.445	Procedure upon unplanned temporary closure of process component
519A.215	Transfer of Permit
519A.220	Suspension or revocation of permit
519A.225-240	Reclamation Permit Fees
519A.285-310	Time for initiation of reclamation, extension, completion; modifications to reclamation plan
519A.350-385	Provisions of Surety
Guidance	
NDEP	Waste Rock and Overburden Evaluation, September 14, 1990
NDEP	Permit Limitations for Leak Detection Systems, December 23, 1991
NDEP	Solid Waste Mining Sites - Class III landfill Waiver, January 15, 1993
NDEP	Mining Sites - Hydrocarbon Contaminated Soil Definition and Guidelines, Authorization, April 1995
NDEP	Alternate Use of Mine Waste Solids - Disposal Outside of Containment, January 23, 1996
NDEP	Meteoric Water Mobility Procedure, May 3, 1996
NDEP	Mining Regulation Fee Schedule, July 23, 1996
NDEP	Preparation Requirements and Guidelines Permanent Closure Plans and Final Closure Reports, 7/ 23/96
	CLOSURE AND RECLAMATION
Regulations	
445A.431	Stabilization of tailings
445A.446	Permanent closure of facility
445A.447	Plans for permanent closure; sources not classified as process components
519A.215	Transfer of Permit
519A.220	Suspension or revocation of permit
519A.225-240	Reclamation Permit Fees
519A.285-310	Time for initiation of reclamation, extension, completion; modifications to reclamation plan
519A.320-330	Notification of completion, abandonment, or suspension of reclamation work; stockpiling of topsoil; revegetation
519A.335-345	Authority of the Division
519A.350-385	Provisions of Surety
Guidance	
NDEP	Nevada Interim Standards for Successful Revegetation - Attachment B, September 1, 1993
NDEP	NDEP and BLM Bond Reduction Policy, January 13, 1995
NDEP	Documentation of Reclamation Activities for Surety Release and Annual Fee Reporting, 3/16/95
NDEP	Stability Requirements for Mine Components in Post-Mining configurations, DRAFT -6/29/95
NDEP	Annual Reclamation Report Form, February 1996
NDEP	Monitoring and Analysis of Post-Closure Heap Discharge, June 3, 1996
NDEP	Preparation Requirements and Guidelines Permanent Closure Plans and Final Closure Reports, 7/23/96

Regulatory Criteria	Nevada Regulations NAC 445A, 519A	40 CFR 192	Newmont Rain Facility	Barrick Bullfrog Mine	Echo Bay McCoy/Cove
Water Management	Water management plan approved prior to operation. Identify storm flow runoff control	Not specified	Water Management plan in place.	Water Management plan in place.	Water Management plan in place.
Permit approval	Review and approval by NDEP after public comment period and resolution.	Not specified	Operation in place prior to regulations	Operation in place prior to regulations.	Operation in place prior to regulations.
Tailings Impoundments	Minimum Design Criteria Equivalent to 12 inches of soil liner with coeff. of perm. of $1x10^{-6}$ cm/sec. Or competent bedrock demonstrated equivalent to $1x10^{-6}$cm/sec.	Criteria for Surface Impoundment Three layers of solution containment Primary liner, e.g. geomembrane. Composite bottom liner - upper component e.g. geomembrane, -lower component: > 3 feet compacted soil with k no greater than $1x10^{-7}$ cm/sec	Tailings Impoundment has a 12" thick underdrain liner of compacted naturally occurring clays with permeabilities of 10^{-6} to 10^{-7} cm/sec. Also the area is underlain with naturally occurring highly impermeable clays with permeabilities ranging from 10^{-8} to 10^{-9} cm/sec.	12-inch thick clay amended soil (5% bentonite). Also, drained and consolidated tailings have a vertical permeability of 10^{-3} to 10^{-4} cm/sec.	Basin and embankment lined with 30 mil VLDPE over a prepared sub-base. No data on permeability of sub-base. Area overlain has permeability of 10^{-4} cm/sec.
Ponds - Minimum Design Criteria	Primary synthetic liner and secondary liner. System between liners to recover any fluid entering. Storm event ponds may be single liner systems.	Not specified - Use Surface impoundment	Double liner. 80-mil HDPE upper liner on top of unspecified grade HDPE lower liner. Geotextile between liners to direct leakage to sump. Under lower liner is 12 inches of compacted native clay. (This is a description of the heap leach ponds.)	Double liner. 60 mil HDPE upper liner with 40 mil HDPE lower liner. 0.25-inch geotextile between liners to act as LCRS.	Double liner. 60 mil HDPE upper liner with 30 mil VLDPE lower liner. No mention of geotextile between liners to act as LCRS.

Meteorological Report	Identify boundaries and area of up gradient watershed, and 10, 25 and 100 year, 24 hour storm events.	Only to exclude constituents from the 40CFR261 appendix VIII list - 264.92(b)(2) Identify and design to 25 year 24 hour storm event.	Prepared designs contain average annual precipitation and to meet 100 year 24 hour storm event. Also evaluated the evaporation rate to define settling and drying of tailings within the impoundment.	Prepared designs contain average annual precipitation and to meet 100 year 24 hour storm event. Also evaluated the evaporation rate to define settling and drying of tailings within the impoundment.	Prepared designs contain average annual precipitation and to meet 100 year 24 hour storm event. Also evaluated the evaporation rate to define settling and drying of tailings within the impoundment.
Ore/Waste Rock/Overburden Characterization	TCLP, Meteoric Water Mobility, and Acid Generating/ Neutralization Potential	Not specified	Meteoric Water Mobility, Acid Generating/ Neutralization Potential	Meteoric Water Mobility, Acid Generating/ Neutralization Potential	Meteoric Water Mobility, Acid Generating/ Neutralization Potential
Regulation basis	Clearly identified process components - a distinct portion of a facility which is a point source.	Point source compliance and compliance to design standard.	Identified potential point sources and designed accordingly to prevent degradation of waters of the State.	Identified potential point sources and designed accordingly to prevent degradation of waters of the State.	Identified potential point sources and designed accordingly to prevent degradation of waters of the State.
Surety Requirements	Estimated and obtained prior to reclamation permit and the start of operations	40 CFR 264.101 states that assurances of financial responsibility for corrective actions must be provided.	Part of reclamation permit.	Part of reclamation permit.	Part of reclamation permit.
Waste rock and over burden disposition	Evaluated by meteoric water mobility procedure. Any material which fails must be evaluated for containment or neutralization, and approved by NDEP prior to operation.	Not specified.	Waste rock pile. Seepage is monitored, after corrective action.	Waste rock pile. Seepage is monitored.	Waste rock pile. Seepage is monitored.

Regulatory Criteria	Nevada Regulations NAC 445A, 519A	40 CFR 192	Newmont Rain Facility	Barrick Bullfrog Mine	Echo Bay McCoy/Cove
Point of compliance	At the groundwater, to prevent degradation of the waters of state.	192.32(a)(2)(iv) >500 m from edge of disposal area or outside the site boundary. 264.95 Vertical surface located at the hydraulically down gradient limit of waste management area.	At the groundwater, to prevent degradation of the waters of state.	At the groundwater, to prevent degradation of the waters of state.	At the groundwater, to prevent degradation of the waters of state.
Monitoring frequency	Determined by NDEP	Specified by Regional Administrator, but no less than a sequence of 4 samples from each well at semiannually for both detection & compliance.	Leak detection flows - daily Monitoring wells quarterly	Collected weekly and composited into quarterly sample.	Leak detection flows - daily Monitoring wells quarterly supply wells-annually
Monitoring constituents	Per NDEP form 0090	Per 261 appendix VIII	Seepage and Monitoring Wells - Profile I includes: As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Hg, K, Se, Ag, Na, Zn, Alkalinity, TDS, WAD CN, Cl, F, Nitrate, Sulfate. Tailings solids and water - Profile II includes: All constituents in Profile I and: Al, Sb, Be, Bi, Ca, Co, Ga, La, Li, Mn, Mb, Ni, P, Sc, St, Th, Sn, Ti, Va. Tailings solids - meteoric water mobility	All - Profile II includes: All constituents in Profile I and: Al, Sb, Be, Bi, Ca, Co, Ga, La, Li, Mn, Mb, Ni, P, Sc, St, Th, Sn, Ti, Va. Tailings solids - meteoric water mobility	Seepage and Monitoring Wells - Profile I includes: As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Hg, K, Se, Ag, Na, Zn, Alkalinity, TDS, WAD CN, Cl, F, Nitrate, Sulfate. Tailings solids and water - Profile II includes: All constituents in Profile I and: Al, Sb, Be, Bi, Ca, Co, Ga, La, Li, Mn, Mb, Ni, P, Sc, St, Th, Sn, Ti, Va. Tailings solids - meteoric water mobility

Liners - Minimum Design Criteria	Soil liners - minimum 12 inches thick compacted in lifts < 6 inches, perm of not more than $1x10^{-7}$cm/sec (except for tailings impoundments) Synthetic liners - coeff of perm. Not less than $1x10^{-11}$ cm/sec.	Not specified.	Synthetic - 80 mil HDPE native soils - 12 inch soils or native clays, coefficient of permeability was not specified.	Meets state requirements.	Meets state requirements.
Leak Detection	When installed under a single liner system, must include a means of recovering process fluids.	Must also serve as leachate collection and removal system. > 1% bottom slope, and 12 inches of Granular drainage material with $k=1x10^{-1}$ cm/sec or more; or Geonet drainage material with minimum transmissivity = $1x10^{-4}$ m^2sec	No leak detection for impoundment. Leak detection installed between synthetic liners for the ponds.	No leak detection for impoundment. Leak detection installed between synthetic liners for the ponds.	No leak detection for impoundment. No leak detection installed between synthetic liners for the ponds.
Monitoring location	At the interface between the process component and the adjacent environment	Determined by Regional Administrator, minimum must accurately represent water passing the point of compliance.	Underdrain collection pond leak detection sump, tails water and solids, seepage pond, upstream and downstream trench drains, monitoring wells	Tailings solids and water, reclaim pond water, monitoring wells.	Water supply wells, monitoring wells, tailings solids and water, channel leak detection.

Regulatory Criteria	Nevada Regulations NAC 445A, 519A	40 CFR 192	Newmont Rain Facility	Barrick Bullfrog Mine	Echo Bay McCoy/Cove
Closure requirements	Remove process solutions from the system, limit run-on precipitation, prevent wind erosion, and ensure no degradation to waters of the state.	Remove solids and containment systems and handle as hazardous waste; or eliminate free liquid, stabilize solids to sufficient bearing capacity and install final cover.	Drain down impoundment, remove and process solutions, provide new run-on diversion channels, cover with waste rock regrade and reseed.	At the end of operation impoundment will be drained down. Solutions will be removed and reused. The impoundment will be covered, prepared and reseeded. Monitoring of seepage will continue for 5 years.	Dry tailings material will act as seal to the impoundment. Construct low berm to contain precipitation for evaporation, cover impoundment with stockpiled soil and reseed. Seepage will be collected until seepage stops.
Final closure slope stability	Permittee must show that all slopes created by mining operations have an erosional stability comparable to adjacent areas. For slopes >3:1, Mass stability should consider Infinite slope, circular slope, block slope, and wedge slope failures, all for static and pseudo static scenarios. Minimum safety factor of 1.3 for static and 1.05 for pseudo-static.	Not specified.	Recontoured per requirements to achieve post mining land use.	Recontoured per requirements to achieve post mining land use. final slope will be 0.75% from natural deposition of tailings in the impoundment.	Recontoured per requirements to achieve post mining land use. Embankments will be flattened to achieve 2-2/1:1 slope or flatter.
Revegetation requirements	provided	Not specified	Per requirements	Per requirements	Per requirements

Monitoring reporting requirements	Minimum - quarterly	Reporting required only upon significant evidence of contamination.	Complete analysis-quarterly	Complete analysis-quarterly	Complete analysis-quarterly
Corrective Action by Permittee - Release to the environment	Identify source, determine extent of system to contain or confine, identify remediation methods.	Notify Regional Administrator, resample at regular intervals. May be required to	Identified source, contained contamination, prepared remedial action plan	Identified source, contained contamination, prepared remedial action plan	Identified source, contained contamination, prepared remedial action plan
Corrective Action by Regulatory Agency - Release to the environment	Require immediate shutdown, allow continued operation during cleanup or control, or indicate no remedial action.	If statistically significant may require a corrective action plan.	Allowed continued operation	Allowed continued operation	Allowed continued operation
Surface Water stds.	NRS 445.253				
Groundwater stds.	Not less than federal drinking water standards WAD CN < 0.2mg/l NDEP may add other unregulated constituents	Not less than federal drinking water standards	Do not degrade waters of the state to less than state drinking water standards and WAD CN < 0.2mg/l.	Do not degrade waters of the state to less than state drinking water standards and WAD CN < 0.2mg/l.	Do not degrade waters of the state to less than state drinking water standards and WAD CN < 0.2mg/l.
Groundwater exemptions	NDEP may exempt all or a portion of groundwater if not currently or potential drinking water source. Based on depth, location, TDS >10,000 mg/l.	Regional Administrator may exempt a constituent from monitoring if it does not pose a potential threat to human health or the environment.	No exemptions granted.	No exemptions granted.	No exemptions granted.

3. EPA URANIUM PROCESSING FRAMEWORK

3.1 Uranium Processing Overview

Beginning in the 1940's, the United States Government purchased large quantities of uranium for defense purposes. Uranium is the basic element for nuclear explosives. The United States mined nearly 60 million tons of uranium for nuclear weapons production during the Cold War.[12] It takes approximately a ton of uranium ore to yield several pounds of uranium metal. The uranium metal is beneficiated through a milling process, whereby the ore is crushed and ground. The uranium is leached out with acid. The result is a dry purified concentrate called "yellow cake" and large volumes of sand-like byproduct called "mill tailings". These tailings contain toxic heavy metals and radioactive radium and thorium that pose a hazard to public health and the environment. Uranium mill tailings pose a risk to health, because: (1) the radium decays to radon and the radioactive decay products may become lodged into lungs; (2) people may be exposed to gamma radiation; and (3) the radioactive and toxic substances may leach into the ground and surface water, be ingested with food or the water, and inhaled from the airborne contamination. Uranium mill tailings may contain other hazardous constituents such as arsenic, molybdenum, selenium, and uranium.

Historically, uranium mills piled tailings without covers or containment, leaving some material to release into the ground and surface water, and to the air and soil. In addition, tailings have in the past been removed from the piles for use in construction and for soil conditioning. This practice may have led to elevated indoor radon levels, which exposed the public and workers to gamma radiation.[13] Today, most tailings are disposed of in tailings impoundments. In addition, most uranium milling facilities are no longer active, and many have been abandoned with the uranium mill tailings piles still exposed to the environment. These potential health hazards led Congress to enact the Uranium Mill Tailings Radiation Control Act (UMTRCA).

3.2 Regulation Summary

Congress enacted UMTRCA in 1978.[14] UMTRCA authorizes the Department of Energy to enter into cooperative agreements with certain states concerning residual radioactive material at existing sites, and to provide for the regulation of uranium mill tailings under the Atomic Energy Act of 1954[15]. According to UMTRCA Section 2, Congress found that uranium mill tailings located at active and inactive mill operations could pose a potential and significant radiation health hazard to the public, and that the protection of the public health, safety, and welfare and the regulation of interstate commerce require that every reasonable effort be made to provide for the stabilization, disposal, and control in a safe and environmentally sound manner of such tailings in order to prevent or minimize radon diffusion into the environment and to prevent or minimize other environmental hazards from such tailings. The main purposes of the Act are to provide:

(1) a program to regulate mill tailings during uranium or thorium ore processing at active mill operations and after termination of such operations; and

(2) a program of assessment and remedial action at inactive sites, including the reprocessing of tailings to extract residual uranium and other mineral values where practicable, in order to stabilize and control such tailings in a safe and environmentally sound manner and to minimize or eliminate radiation health hazards to the public.

Under the authority of Section 108 of the Act, the EPA promulgated 40 CFR 192, Health and Environmental

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[12] Closing the Circle on the Splitting of the Atom, U.S. Department of Energy Office of Environmental Management, January 1995

[13] 60 Federal Register 2855

[14] 42 U.S.C. 7901-7942

[15] 42 U.S.C. 2011-2259

Protection Standards for Uranium and Thorium Mill Tailings.[16] These standards were designed to govern the disposal and cleanup of the designated inactive mill tailings sites. In September 1985, after these standards were challenged in the Tenth Circuit Court of Appeals by several parties, the court dismissed all challenges except on set aside the groundwater provisions of the regulations at 40 CFR 192.20 (a)(2) and (3) and remanded them to E EPA published new final standards on January 11, 1995[17]. These standards are divided into the following Subpa of 40 CFR 192:

(1) Subpart A-Standards for the Control of Residual Radioactive Materials From Inactive Uranium Processing Sites;

(2) Subpart B-Standards for Cleanup of Land and Buildings Contaminated with Residual Radioactive Materials from Inactive Uranium Processing Sites;

(3) Subpart C-Implementation;

(4) Subpart D-Standards for Management of Uranium Byproduct Materials Pursuant to Section 84 of tl Atomic Energy Act of 1954, as Amended; and

(5) Subpart E-Standards for Management of Thorium Byproduct Materials Pursuant to Section 84 of th Atomic Energy Act of 1954, as Amended.

In addition, Appendix I provides a list of hazardous constituents contained within the residual radioactive materia that must be considered when corrective action is necessary and for monitoring programs under Subpart A and B. Subparts A, B and C govern the remediation of designated inactive sites.[18] Subparts D and E govern the management of uranium and thorium byproduct materials respectively.

Because Subpart D and E pertain to active processing facilities, they are most relevant to a comparative analysis with the Nevada framework. Subparts D and E are quite similar, so this report summarizes Subpart D to help EP/ focus on the requirements of 40 CFR 192 that are most comparable to the Nevada cyanide mill taillings design, operating and closure standards.

Subpart D governs the management of uranium byproduct materials during the processing of uranium ores, and restoration of disposal sites upon the conclusion of active operations.[19] It provides standards to stabilize, inhibit future misuse of, and reduce emissions or effluent from uranium byproduct materials during uranium ore processi operations. Uranium byproduct materials and tailings are defined as follows:

> Uranium byproduct material - the tailings or waste produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content. (40 CFR 192.31(b))
>
> Tailings - the remaining portion of the metal-bearing ore after some or all of the metal has been extracted. (40 CFR 192.01)

In short, the basic principle of 40 CFR 192 Subpart D is that the standards apply to the management of uranium byproduct material during and following processing of uranium ores, and to the reclamation of disposal sites. Th design, operating, and closure standards are applicable to tailings impoundments only, not the leaching facilities.

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[16] 48 Federal Register 590, January 5, 1983

[17] 60 Federal Register 2854

[18] For comparative analysis, Subparts A, B, and C are not applicable to the design, operation, and closure of active facilities

[19] 40 CFR 192.30

Subpart D includes two major sections: standards, and corrective action programs. These are described below in sections 3.3 and 3.4.

3.3 Design Criteria

3.3.1 Surface Impoundments

The standard applicable to the design, construction and installation of the facility includes only:

> Surface impoundments (except for an existing portion) subject to this subpart, must be designed, constructed, and installed in such a manner to conform with 40 CFR 264.221 Surface Impoundments Design and Operating Requirements... .(40 CFR 192.32 (a) (1))

40 CFR 263.221 outlines the design and operating requirements for surface impoundments to prevent the migration of waste out of the impoundment. For example, a tailings impoundment must have three layers of solution containment; a primary containment and a secondary containment consisting of an upper and lower component. The third layer of containment (the lower component) must be designed and constructed to minimize the migration of hazardous constituents if a breach in the upper component were to occur (40 CFR 264.221(c)(1)(I)(B)).

The CFR also mandates that a leachate collection and removal system is installed between the liners, and the system also function as a leak detection system. The leachate collection system will be constructed with a bottom slope of 1% or more, using a granular drainage material with a hydraulic conductivity of $1x10^{-1}$ cm/sec or more, and a thickness of at least 12 inches, or geonet drainage materials with a minimum transmissivity of $3x10^{-4}$ m^2sec.

The regional administrator may approve alternative design practices as long as the design will prevent the migration of hazardous waste into the ground or surface water and be at least as effectively as the system described above. (40 CFR 264.221(d)(1)) Surface impoundments must also be designed, constructed, maintained, and operated to prevent overtopping, overfilling, rainfall, run-on, malfunctions of level controls alarms or human error. Surface impoundments must have dikes that are designed, constructed and maintained with sufficient structural integrity to prevent massive failure of the dikes. (40 CFR 264.221 (g) and (h))

3.4 Monitoring and Releases to the Environment

40 CFR 192.32 (a) (2) is the standard applicable to the facility during processing operations and prior to completion of closure, and includes:

(1) Uranium byproduct materials must be managed under 40 CFR 264.298 Detection Monitoring Program, to conform with the 40 CFR 264.92 groundwater protection standard, whereby:

- (a.) molybdenum and uranium were added to the list of hazardous constituents (40 CFR 264.93);
- (b.) Maximum Concentration Limits (MCL) established for radioactivity (40 CFR 264.94);
- (c.) detection monitoring required under 40 CFR 264.98 to meet 40 CFR 262.92 shall be completed in one year after promulgation;
- (d.) authority given to NRC to establish Alternative Concentration Limits (ACLs) at point of compliance; and
- (e.) designated 264 "Regional Administrator" functions and responsibilities given to NRC for facility permits;

(2) uranium mill tailings piles or impoundments that are nonoperational and subject to an NRC license or state agreement shall limit releases of radon-222 by emplacing a permanent radon barrier, which must be constructed as expeditiously as possible after the pile or impoundment ceases to be

operational; and

(3) upon emplacement, licensee must conduct appropriate monitoring.

The Detection Monitoring Program (40 CFR 264.98) references the General Groundwater Monitoring Requirem (40 CFR 264.97) to ensure that enough monitoring wells are used to accurately represen the quality of groundw passing the point of compliance. Each monitoring well must be cased to maintain borehole integrity, screened o perforated and packed with gravel or sand to enable collection of the groundwater, and the annular space must b sealed to prevent contamination of the sample and groundwater. Additionally, the detection monitoring progra requires the owner/operator to determine the water quality background levels prior to operation, establish statist sampling and evaluation methods, and requirements and procedures for notifying the Regional Administrator in t event of a leak. The Detection Monitoring Program and the Compliance Monitoring Program (40 CFR 264.99) state that "the Regional Administrator will specify the frequency for collecting samples and conducting statistical tests..." A sequence of at least four samples from each well must be collected at least semiannually during detect and compliance monitoring.

The groundwater protection standard (40 CFR 264.92) requires compliance with:

264.93 Hazardous Constituents - shown in 40 CFR 261 Appendix VIII.

264.94 Concentration Limits - Must not exceed background or those shown in Table 1 of 264.94, w ever is greatest.

264.95 Point of Compliance - A vertical surface located at the hydraulically down gradient limit of th waste management area. This is the point where the facility must meet the MCLs according t permit standards.

264.96 Compliance Period - Begins when the owner/operator initiates a compliance monitoring program and will continue the number of years specified by the Regional Administrator in the facility permit. The compliance period may be extended if the owner or operator is engaged i corrective action.

In addition, Subpart D Section 192.33 mandates that the licensee must develop a corrective action plan as outlin under 40 CFR 264.100 if the groundwater standards under 40 CFR 192.32 are exceeded. A "licensed site" is defined in 40 CFR 192.31 as the area contained within the boundary of a location under the control of persons generating or storing uranium byproduct materials under a license issued pursuant to section 84 of the Act. The license is analogous to the facility permit in Nevada.

3.5 Closure

40 CFR 192.32 (b) provides the following standards for use after the closure period:

(1) Disposal areas shall comply with RCRA closure standards under 40 CFR 264.111 with respect to nonradiological standards and shall be designed to provide reasonable assurance of control of radiological hazards to:

(a.) be effective for 1000 years, to the extent reasonably achievable, but at least for 200 years;

(b.) limit releases of radon-222 from uranium byproduct materials to the atmosphere so as not to exceed an average release rate of 20 picocuries per square meter per second;

(c.) exemption from this entire requirement any portion of a licensed and/or disposal site demonstrating concentration levels that do not exceed background by specified limits..

Based upon this exemption, disposal areas for nonradiological wastes would not need to comply with 40 CFR 264.111 Closure Performance Standard, and hence 264.228 Surface Impoundment Closure and Post Closure Car

However, 40 CFR 264.221 Surface Impoundment Design and Operating Requirements references 264.228 which requires the following:

(1) Remove or decontaminate all waste residues and contaminated containment systems and manage them as hazardous waste;

or

(2) Eliminate free liquids , stabilize remaining waste to a bearing capacity sufficient to support final cover, and install a final cover over the impoundment, designed to: provide long term minimization of liquid migration through the closed impoundment; function with minimum maintenance: promote drainage and minimize erosion; and accommodate settling and subsidence to maintain the cover's integrity. In addition, the owner/operator must comply with all post closure monitoring, maintenance and reporting requirements.

Therefore, while 40 CFR 192.32(b)(1) indicates that non- radiological facilities would not need to be managed under RCRA, 40 CFR 264.221 indicates that the wastes will need to be removed or decontaminated, or capped in place.

Though surety is not specifically stated, as a "regulated unit" the financial requirements under 40 CFR 264 Subpart F apply and state "assurance of financial responsibility for such corrective actions must be provided" (40 CFR 101 (c)). These corrective actions are necessary to protect human health and the environment for all releases of hazardous waste or constituents. The specific corrective actions will be specified in the permit.

4. NEVADA MILL LEACH FACILITIES - EXAMPLES

4.1 Rain Facility - Newmont Gold Company

4.1.1 Rain Facility Description[20]

The Rain facility is owned and operated by Newmont Gold Company and is located approximately 9 miles southeast of Carlin, Nevada. The facility began producing gold on July 2, 1988, and is a mining-milling-leaching operation for recovery of finely disseminated gold from oxidized sediments. Gold concentrations range from 0.01 to 0.15 ounces of gold per ton of ore. Ore grades for heap leaching are 0.01 to 0.05 ounces of gold per ton or ore, and ore containing more than 0.05 ounces of gold per ton is sent to the mill.

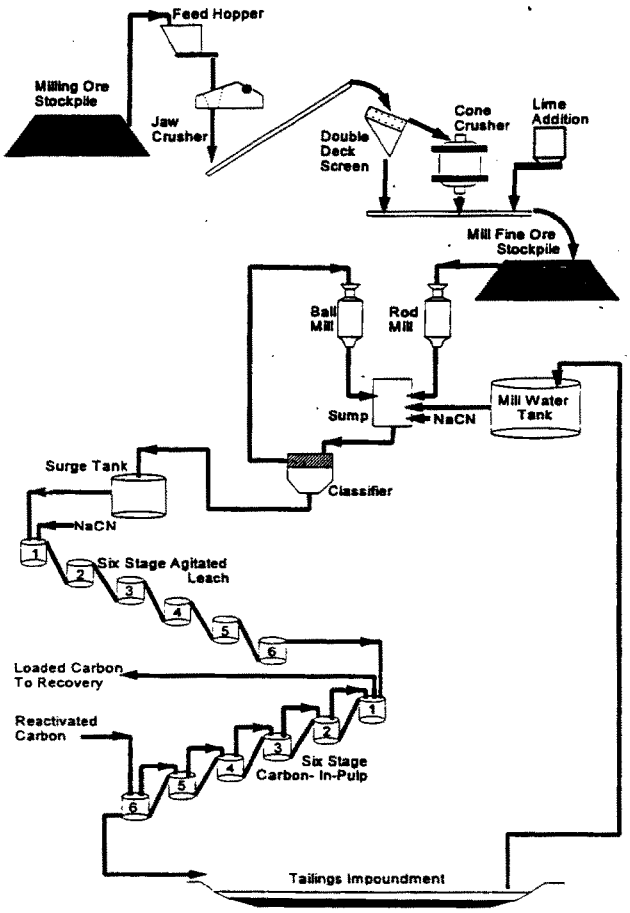
In 1990, the ore reserve estimates were revised from 62.5 million tons to 80.2 million tons, of which 6.7 million tons was mill grade ore, and 11 million tons was heap leach grade ore. At a production rate of 1 million tons per year for the heap leach, the operating life of the facility would be 11 years.

As material is removed from the ground, the ore designated for conventional milling is placed in a milling ore stockpile. As needed, the ore is crushed in a jaw crusher to less than 6 inches in diameter and sized to 3/4-inch on double screen. Material coarser than 3/4-inch is fed to a cone crusher, and the cone crusher discharge and the material finer than 3/4-inch is mixed with lime and fed to the mill fine ore stockpile. The mill fine ore is fed to the milling operation which begins with a rod mill. The rod mill discharges to a sump shared with the ball mill. Slurry from the sump is classified at 70% passing 200 mesh, with the oversize returning to the ball mill, and the undersize going to the six stage agitated leach circuit.

Leaching is performed in 6 - 190,000 gallon mechanically agitated tanks, with the slurry flowing by gravity from one tank to the next. A concrete secondary containment surrounds all six tanks and has a minimum volume of 190,000 gallons. From the sixth leach tank the Pregnant solution/ore slurry is transferred to the first of six Carbon-In-Pulp (CIP) gold recovery tanks. As the pregnant solution flows by gravity from the first stage sequentially to th last, activated charcoal is mechanically transferred from the last stage to the first stage, countercurrently. This makes it possible to put the most barren carbon in contact with the most barren leach solution (in the sixth stage), removing virtually all of the precious metals, and puts the most highly loaded carbon in contact with the highest concentration gold solution, maximizing the gold loading on the carbon. The loaded carbon is washed, and transferred by truck to the Newmont Gold Quarry facility where the gold is recovered from the carbon and the carbon is reactivated and sent back to the Rain facility for reuse. The barren solution and tailings leaves the last stage of CIP and flows to the tailings impoundment. This slurry contains approximately 35 to 40% solids, has a solution pH of approximately 10 and WAD cyanide concentration of approximately 30 parts per million (ppm).

[20] The source document for this evaluation was the Technical Resource Document Extraction and Beneficiation of Ores and Minerals, Volume 2, Gold, August 1994, US EPA 530-R-94-013

Figure 4.1-1 - Rain Gold Mill Operation



4.1.2 Environmental Setting

The facility is at an elevation of 6,600 feet above sea level, and the climate is described as dry and warm. Decem is typically the wettest month, and the annual precipitation averages 12 inches. The surface water in the area includes the Ferdelford and Dixie creeks and baseline data predating the Rain facility show both with high pH, bicarbonate concentration, TDS and conductivity. Metal concentrations were generally low in Ferdelford creek, a Dixie creek showed arsenic, iron and manganese concentrations. Groundwater is limited with either shallow perched water which is not connected to the regional groundwater, and deeper groundwater sources existing more than 350 feet below the surface.

4.1.3 Tailings Impoundment

The Rain tailings impoundment is located downgradient from the heap leach facility and pregnant pond. The ultimate surface of the impoundment is now anticipated to be 189 acres with a total dry capacity of 6.7 million dr tons of tailings (1990). The impoundment is designed to contain the flow from the watershed for a 100 year 24 ho storm event. The structure is designed to withstand the maximum credible earthquake expected in the Newmont area. Construction on the starter embankment began in October of 1987 and four additional lifts have been added the dam to expand the storage capacity of the impoundment. The initial dam structure was a earth fill embankmen consisting of a compacted clay core with random fill shells and a near vertical chimney drain/transition zone. The upstream and down stream slopes were constructed to 2:1 (horizontal to vertical) to a crest elevation of 6409 feet A blanket drain was constructed along the base of the embankment which is hydraulically connected to the chimne drain.

The environmental assessment indicated that most of the tailings impoundment was underlain by naturally occurri highly impermeable clay with permeability of 10^{-7} cm/sec with some areas in the 10^{-6} to 10^{-5} cm/sec range.

The first embankment modification included a downstream embankment raise of 6425 feet to crest, with upstream and downstream slopes of 2:1 and 2.5:1. The core, chimney drain, and blanket drain from the starter embankment were provided for within the embankment raise. Also a natural soil liner and gravity underdrainage collection system were constructed in the valley area to improve seepage control as the basin fills. This underdrain system consisted of a one foot-thick layer of compacted native soil (1x10-6 to 1x10-7 cm/sec) ~~overlain with a drainage blanket/hydraulic break of 12 inches of select waste rock.~~ Four-inch diameter perforated drainage lines were installed at intervals in the waste rock layer which discharge to an eight-inch diameter pipe which passes through the tailings dam in a concrete encasement to an underdrainage collection pond. A 30 mil PVC liner was also installed over the natural soil liner in the transition zone between the pond level and the functional elevation of the underdrainage collection system.

The second embankment modification included an upstream raise of approximately 7 feet using primarily mine waste fill with an extension of the core seal zone at the embankment extremities. Upstream and down stream slope were maintained at 2:1 and 2.5:1 respectively. The third embankment modification included an upstream raise of 20 feet (determined by difference from phase II and phase IV crest elevations). The fourth embankment modification includes a centerline raise of 3.5 feet. Also, a 1 foot thick soil liner and underdrain system will be installed in the upper valley area. The soil liner will consist of borrowed and scarified in-place low permeability soils, moisture conditioned and compacted to 95% of standard proctor density which results in an in-place permeability of 1x10-6 cm/sec or less. A 30-mil PVC liner will be placed over the underdrain blanket and essentially provide a double liner system beneath the pond area.

A good indication that the underdrains continue to operate as designed is provided from the piezometric record, which shows periodic fluctuations of several feet in the phreatic levels, but all have stabilized after a short period c time.

4.1.4 Monitoring and Permit Requirements

As a requirement of their Water Pollution Control permit, Newmont reports quarterly on the results of the followin tests shown in Table 4.1-1

Table 4.1-1 Newmont Rain Facility Monitoring Locations and Parameters

	Monitoring Location	Parameter
1.	Underdrain collection pond leak detection sump	Average daily accumulation (gpd) (Report weekly)
2.	Tails water, Reclaim water, Underdrainage water	Profile II
3.	Seepage Pond	Profile I Pumpback flow(weekly)
4.	Upstream and Downstream Trench Drains	Profile I Pumpback flow (weekly)
5.	Monitoring Wells	Profile I

Profile I includes: As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Hg, K, Se, Ag, Na, Zn
Alkalinity, TDS, WAD CN, Cl, F, Nitrate, Sulfate.

Profile II includes: All constituents in Profile I and:
Al, Sb, Be, Bi, Ca, Co, Ga, La, Li, Mn, Mb, Ni, P, Sc, St, Th, Sn, Ti, Va.

The permit also requires zero discharge to surface waters, and ground water releases may not cause violations of drinking water standards or result in WAD cyanide concentrations over 0.2 mg/l. Finally, the permit places flow limits from leak detection sumps at less than 150 gpd averaged quarterly and 50 gpd averaged annually.

A permanent closure plan is required by the water pollution control permit. Specific to the Rain tailings impoundment closure procedures will include measures to limit run-on of precipitation and remove existing fluids from the system. Process solutions and solutions collected in the underdrain and seepage collection ponds will be pumped to the heap leach facility for disposal. New run on diversion channels will be constructed or existing channels will be modified to prevent precipitation from flowing onto the impoundment. With gradual draining of non-capillary fluid seepage into the collection points will cease. As the tails dry, a layer (less than 12 inches) of coarse mine waste or a layer of organic material may be placed over the impoundment to prevent wind erosion. At the end of operations one or more tailings samples will be taken at a depth in the saturated zone of the tailings and analyzed using the Meteoric Water Mobility Procedure.

Recontouring and/or revegetation of the impoundment will be performed to stabilize disturbed areas and to achieve post-mine land use. This vegetation will also aid in the evapo-transpiration of any precipitation falling directly on the impoundment.

The drainage collection system will be maintained and operated as long as flow continues to come from the impoundment, and the water collected will be used in the revegetation effort. Ground water monitoring will be performed throughout the closure period and longer as agreed to by NDEP. Migration of any contaminant plume outside the facility boundary which may impair the beneficial use of the ground water will be prevented including installation of a barrier well pump back system.

4.1.5 Corrective Actions

During construction of the tailings impoundment, a 7.5 gpm seep was noted in the natural drainage channel 300 feet downgradient of the tailings impoundment dam. A tracer study determined that the seepage was coming from the dam interior, by migrating through the upstream face of the dam to the chimney drain and exiting the blanket drain on the downstream side. To control seepage, a second keyway was excavated along the toe area on the inside face of the dam, and backfilled with clayey soil. A four foot thick clay liner was also placed from the top of this keyway to the upstream toe of the dam. Down gradient of the dam, a seepage collection pond was installed and a 60-mil HDPE barrier wall backfilled with clay materials was installed to prevent further migration of the seep

4.2 Bullfrog Mine - Barrick Bullfrog, Inc.

4.2.1 Bullfrog Mill Facility Description

The Bullfrog Mine is a gold-silver mining operation currently owned and operated by Barrick Bullfrog, Inc, and is located approximately 3 miles southwest of Beatty, Nevada. Bond Gold Company began operation of the open pit mine and mill in June 1989, and LAC Minerals purchased the property in December 1991and operated it until October 1994, when Barrick Gold Corporation purchased LAC Minerals, Inc.. The project was projected to have a 15 year life, during which time a total tonnage of 60.0 million tons would be mined at 4 million tons per year.

As ore is removed from the ground, it is delivered to a gyratory crusher which reduces the ore to 80% less than 4 inch prior to being stored in an uncovered coarse ore stockpile. As needed, coarse ore is fed to the fine ore crushing plant where it is fed through two stages of cone crushers and a vibratory screen to produce 100% less than 3/8-inch fine ore. The fine ore is fed to the milling circuit where it is ground in mill solutions in four parallel ball mills. The mill slurry is pumped to a hydrocyclone and the pulp which is 45% less than 200 mesh (74 micons) is fed to the leach circuit. The oversize is returned to the ball mills. The ore is leached in three mechanically agitated tanks (each with a total capacity of 110,000 gallons) with the slurry flowing from one tank to the next by gravity. From the third tank the pregnant solution/ore slurry is transferred to the first of six Carbon-in-Pulp (C-I-P) gold recovery tanks. As the pregnant solution flows by gravity from the first stage sequentially to the last, activated charcoal is mechanically transferred from the last stage to the first stage, countercurrently. This makes it possible to put the most barren carbon in contact with the most barren leach solution (in the sixth stage), removing virtually all of the precious metals, and puts the most highly loaded carbon in contact with the highest concentration gold solution, maximizing the gold loading on the carbon. The loaded carbon is washed, and transferred to the stripping and gold recovery facility. The gold is recovered from the carbon and the carbon is reactivated and returned to the leach/adsorption circuit for reuse. The barren solution and tailings leaves the last stage of CIP and flows to the tailings impoundment via a 10-inch pipe. After settling of the solids the decanted liquid is recirculated to the mill for reuse.

4.2.2 Environmental Setting

The facility is located at an approximate elevation of 3280 above sea level and the climate is generally warm and dry. Based upon long-term climatic records from nearby Beatty, Nevada the site receives annual precipitation of 4.5 inches with the wettest month being February. The average annual snowfall is 3.3 inches, with the maximum occurring in January. The terrain adjacent to the tailings facility is relatively flat with average slopes of approximately 0.5%. The tailings facility is located on a coarse alluvial basin deposit which consist of generally well graded sands and gravel. The alluvium is reported to be up to 1000 feet deep with variable stratification of the deposit near the surface.

Groundwater at the site occurs in hydraulically distinct fractured bedrock and basin-fill alluvial aquifers within the upper Amargosa Desert hydrographic basin. The tailings impoundment is located at the northern edge of the Amargosa Desert Basin, approximately 642 feet above the water table in the alluvial aquifer. Groundwater elevations in the upper Amargosa Desert Alluvial aquifer range from 2,865 to 2,344 feet amsl, and generally reflect the south-southwest gradient.

4.2.3 Tailings Impoundment

The Bullfrog tailings impoundment is located downgradient of the mill facility, and has been built in three phases, the first of which was completed at start up of the facility. The original impoundment was constructed by clearing the vegetation and constructing the dam from overburden material from the facility. The inner dam face was lined with a clay amended soil (approximately 5% bentonite) approximately 12 inches thick, and the height of the embankment ranged from 35 feet on the north facing slopes to 100 feet on the south facing slopes. The impoundment was located over impervious clays to minimize vertical seepage of the tailings fluids into the groundwater system. The number 1 starter facility also used a PVC flexible membrane liner with perimeter and radial underdrains to reduce hydraulic head on the liner system and promote tailings consolidation. These underdrains control piezometric levels by transferring flow to a dewatering sump at the inboard toe of the ring dike.

The Number 2 impoundment was completed in July 1991, and is similar to the starter impoundment except for the incorporation of a free-draining gravity piping system beneath the embankment to transfer supernatant and storm water from the ring-like decant to an external solution pond. Also radial and perimeter finger drains were modifiec to provide gravity drainage to the reclaim pond, and the lining system for number 2 was upgraded to include a secondary synthetic liner and leak collection and recovery system (LCRS) under the footprint of the ring dike. Liner systems were HDPE.

The number 1 and 2 tailings impoundments were combined into the composite tailings impoundment in 1993 wher a vertical raise was installed using a combination of downstream and upstream construction techniques. Two additional vertical raises were planned for the composite impoundment, however, future tailings capacity at Bullfro will be provide by the Number 3 impoundment. The expansion used 40 mil VLDPE flexible membrane liner on a prepared subgrade along all upstream embankment slopes.

Tailings deposition is performed subaerialy using 120 six-inch low-energy spigots evenly spaced around the upstream circumference of the tailings impoundment. Sedimentation results in the coarse sand fraction being preferentially deposited adjacent to existing embankments. By cycling the flow to the spigots tailings disposition occurs in thin layers, 6 to 14 inches thick, and producing large exposed tailings beaches, which slope towards the decant. The slimes and supernatant solution are transported toward the existing decant pipe where they form a supernatant pool. This pool is maintained at a maximum radius of 600 feet, and is kept as small and shallow as possible to promote maximum drying, desiccation, and consolidation of tailings. The slimes settle and the supernatant is reclaimed from the surface and is transported to the reclaim pond.

This tailings deposition management technique produces a vertical sequence of dense, partially saturated deposits which function as a positive seal against further infiltration of fluids from precipitation or subsequent tailings deposition. It should be noted that the drained and consolidated tailings have a vertical permeability of approximately $1X10^{-5}$ to $1x10^{-6}$ cm/sec, and in effect from a barrier to the vertical infiltration of water.

Two reclaim ponds were constructed to serve the tailings impoundments. Both were constructed of 60 mil HDPE primary liner and 40 mil HDPE secondary liner with a 0.25 inch thick geogrid to serve as the LCRS.

Surface water run-on does not impact the tailings impoundment as both the impoundment and the diversion ditches were designed for the 100 year 24 hour storm event. Only precipitation falling directly on the surface of the impoundment impacts the operation and closure of the facility.

4.2.4 Monitoring and Permit Requirements

As a requirement of their Water Pollution Control Permit, NEV 88023, Barrick Bullfrog has collected the following samples specific to the operation of the tailings impoundment.

Table 4.2-1 Barrick Bullfrog Tailings Impoundment Monitoring Requirements

	Material	Collection Frequency	Period	Parameter
1.	Tailings Solids	Collected Weekly and composited into quarterly samples	1st qtr 90 - 2nd qtr 92 3rd qtr 92 to present	Total Conc Profile II Meteoric Water Mobility Profile II
2.	Tailings Liquid	Collected Weekly and composited into quarterly samples	1st qtr 90 - 1st qtr 91 2nd qtr 91 - present	Profile I Profile II
3.	Reclaim Pond Water	Collected quarterly composites	2nd qtr 91 - present	Profile II
	Profile I includes:	As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Hg, K, Se, Ag, Na, Zn Alkalinity, TDS, WAD CN, Cl, F, Nitrate, Sulfate.		

Profile II includes: All constituents in Profile I and:
Al, Sb, Be, Bi, Ca, Co, Ga, La, Li, Mn, Mb,Ni, P, Sc, St, Th, Sn, Ti, Va.

The permit also requires zero discharge to surface waters, and ground water releases may not cause violations of drinking water standards or result in WAD cyanide concentrations over 0.2 mg/l. Finally, the permit places flow limits from leak detection sumps at less than 150 gpd averaged quarterly and 50 gpd averaged annually.

A permanent closure plan is required by the water pollution control permit. The Final Permanent Closure Plan for the tailings ponds calls for dewatering of the tailings and disposal of the water either by recycling or evaporation. Therefore the liquid component of the tailings will not exist after closure to adversely affect ground water or surface water quality. As the tailings surface slopes from the discharge points toward the supernatant pool at approximately 0.75%, no additional grading is required to provide surface drainage and minimize erosion and pooling for final closure. Cover will be placed over the tailings surface to provide the final design grade topography. The cover material will be mounded in the area of the decant pool to allow for additional settling and maintain positive drainage. Upon completion of cover placement the surface will be prepared and reseeded.

Bullfrog has proposed a five year closure monitoring and maintenance period for the composite tailings impoundment. Uniform settling across the surface of the impoundment will not be detrimental to the function of the soil cover. However settling which results in pooling or grade reversal will be mitigated as necessary. All drain down solutions will be measured for flowrate, and analyzed for solution quality. Samples will be collected from the underdrain discharge point on a quarterly basis for the first two years after solids are no longer deposited in the composite tailings impoundment, and samples will be collected on a semi-annual basis for the following three years. All samples will be submitted for Profile II analysis. The leak detection sumps will be monitored for flowrate (normalized to gallons per day) weekly for the first two years following closure, and quarterly for the following three years.

4.2.5 Corrective Actions

Prior to construction of tailings impoundment number 2, NDEP requested an investigation to determine if any leakage had occurred from number 1. Three bore holes were made into the tailings embankment and 35 samples of alluvial material were collected and analyzed for WAD cyanide. Detectable concentrations were not found. Monitoring Well MW-1 was installed downgradient of the tailings impoundment number 1 in 1991. Detectable quantities of WAD cyanide were first reported in MW-1 in 1993, at which point Barrick Bullfrog increased the frequency of monitoring and conducted an investigation to detect saturated soils or contamination plumes outside of the designed containment. Detectable quantities of WAD cyanide only exceeded State Water quality limits (0.2 mg/l) one time, however the duplicate sample did not exceed State Water quality limits. The investigation determined that the WAD cyanide detected in MW-1 probably came from tailings impoundment number 1 or the old reclaim pond, which is now out of service.

Mercury, Fluoride, Antimony and Iron concentrations from water collected at MW-1 also periodically exceed the state standard. While some evidence indicates that these concentrations occur from natural sources, high concentrations of mercury are not found in any other wells.

4.3 McCoy/Cove Mill - Echo Bay Minerals Company, Inc.

4.3.1 McCoy/Cove Facility Description

The McCoy/Cove Mine project is owned and operated by Echo Bay Minerals Company and is located approximately 30 miles southwest of Battle Mountain, Nevada. The facility includes an open pit mine and combined heap and mill leaching of gold and silver bearing ores. McCoy/ Cove has been producing gold since Jul 1989, and is produces approximately 8000 tons per day of mill tailings. Based upon initial reserve estimates, approximately 30 million tons of ore will be mined with an additional 70 million tons possible of mineable reser

As ore is removed from the ground it is stockpiled prior to being crushed to minus 5-inches in a gyratory crusher, and fed to the coarse ore stockpile. The coarse ore is fed to a vibrating screen which separates the oversize and undersize 1/2-inch material. The oversize goes to a secondary crusher which sends its product to a second vibratin screen. The 1/2-inch oversize from the second screen is discharged to a tertiary crusher, which feeds a third doubl deck screen in closed circuit with the third stage of crushing. All 1/2-inch undersize material is fed to the mill storage bins prior to being fed to the primary ball mills where it is ground with mill solution to 80% less than 200 mesh (74 microns). The ball mill discharges in closed circuit to a bank of hydrocyclones which discharge a small portion of the oversize to gravity concentration and the majority of the oversize to flotation. The oversize flotation tails are recycled to the ball mills for further grinding. The cyclone undersize is thickened and sent to flotation, wi the concentrate being mixed with the oversize concentrate for leaching. The undersize flotation tails and leach tail are sent to the tailings impoundment. The flotation concentrates are further ground to 80% less than 325 mesh in tower mill, further concentrated by flotation. This flotation concentrate, which is approximately 11% of the total mill feed, is leached with cyanide, steam, and strong caustic solutions to dissolve the gold. The tails are separated from the pregnant solution by thickening and filtration, and the precious metals are recovered from the pregnant solution by precipitation with zinc dust (Merrill-Crowe recovery). The tailings produced from the mill are placed i a lined tailings disposal facility located south east of the mill. The tailings impoundment is designed to meet the regulatory requirement of zero discharge, and after settling of the solids the water is recycled to the mill.

4.3.2 Environmental Setting

The tailings impoundment is located at an elevation of 4800 feet on the valley floor, which is characterized by predominantly coarse grained soils. The slope of the ground surface is relatively flat, ranging from 1.3 to 2.2 percent sloping from west to east/northeast. The average annual precipitation as estimated from nearby Battle Mountain is 8 inches with the wettest month being June. The mean annual snowfall was estimated at 28.4 inches and can be expected to occur between October and May. Temperatures range from 28.5 to 72.5 °C, and the pan evaporation for the site is 62.5 inches per year.

The Facility lies within the Reese River groundwater basin, and the Reese River is the major watercourse within the general vicinity of the facility. The Reese River is an intermittent stream which collects discharge from within the immediate site vicinity. Only one spring is within direct proximity of the facility, however, it is remote and significantly upgradient from the impoundment site.

Groundwater is relatively deep ranging from 100 to 220 feet below the existing ground surface at a depth of approximately 4660 feet, and is of relatively good quality. The gradient of the piezometric surface generally slopes from west to east towards the Reese River

Seismic activity in the Great Basin area has included five major events. In closest proximity to the site was the Pleasant Valley earthquake of 1915 which registered 7.6 M and involved faulting of 20 to 25 miles along the western face of the Sonoma Range. The project site is located approximately 40 miles from the rupture zone.

4.3.3 Tailings Impoundment

The original impoundment design was developed to provide a total of 30 million tones of storage volume

accomplished through construction in two stages. The permeability of the alluvium soils in the tailings impoundment basin were measured to evaluate their use as a liner material and to estimate seepage transmission rates into the vadose zone, should seepage occur. Average permeabilities of $1x10^{-4}$ were identified. Based on the permeability of the soil, the tailings impoundment design included complete lining of the basin and embankments with 30 mil Very Low Density Polyethylene (VLDPE) over a prepared sub-base. The permeability of the prepared sub-base was not reported. To protect the liner a two foot thick layer of bedding material consisting of waste rock sands and silts was placed over the top of it. to minimize hydraulic head on the liner and to enhance tailings dewatering a drainage network was placed above the bedding layer and covered with uncompacted spent ore from the existing heap leach operation. The impoundment was bermed into three cells to allow deposition of tailings in only one area at a time. This allows time for drying and desiccation of the tailings while deposition is occurring in another cell. Tailings deposition will be done using a thin-lift deposition scenario where tailings will enter the impoundment at the upstream end to allow drainage toward the embankment. As the tailings lose energy the solids will settle and the water will continue to flow towards the embankment, evaporating and seeping into previously deposited tailings as it flows. When the water reaches the embankment a network of pipes direct the water through the embankment and into the seepage collection ponds.

The three seepage collection ponds collect the water from the tailings impoundment, promote settling of the fines, and store the water from all storm events. These ponds are all double lined using 60 mil HDPE for the primary liner and 30 mil VLDPE for the lower liner.

The tailings impoundment, diversion ditches and seepage ponds were all designed to accommodate flows from 100 year 24 hour storm events.

The potential seepage from the tailings impoundment system was calculated and compared to the permeability, percent moisture and saturation point of the soils beneath the impoundment. The analysis determined that even under maximum leak condition that it would be unlikely for the solutions to reach the groundwater.

4.3.4 Monitoring and Permit Requirements

As a requirement of their water pollution control permit, NEV 88009, Echo Bay reports on the following samples and analyses pertinent to the operation of the tailings impoundment, as shown in Table 4.3-1.

Table 4.3-1 Echo Bay Tailings Impoundment Monitoring Requirements

	Material	Reporting Frequency	Parameter
1.	Water Supply Wells	Annually	Profile I, Depth to groundwater
2.	Ground water monitoring wells	Annually	Profile I. Depth to groundwater
3.	Monitoring Wells	Quarterly	Profile I. Depth to groundwater
4.	Tailings and Reclaim solutions	Quarterly	Profile II
5.	Tailings Solids	Quarterly	Meteoric Water Mobility analysis
6.	Channel Leak Detection	Daily	Flow, in gpd

Profile I includes: As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Hg, K, Se, Ag, Na, Zn
Alkalinity, TDS, WAD CN, Cl, F, Nitrate, Sulfate.

Profile II includes: All constituents in Profile I and:
Al, Sb, Be, Bi, Ca, Co, Ga, La, Li, Mn, Mb,Ni, P, Sc, St, Th, Sn, Ti, Va.

The permit also requires zero discharge to surface waters, and ground water releases may not cause violations of drinking water standards or result in WAD cyanide concentrations over 0.2 mg/l.

Upon termination of the active use of the tailings impoundment, the deposited tailings material will dry to form a impermeable seal over the impoundment. A low berm will be built around the top to contain precipitation and al evaporation. The sides of the impoundment will be flattened to a slope of 2-1/2:1 or flatter, and the entire impoundment will be covered with stockpiled soil and reseeded. Seepage from the impoundment will be collecte until seepage stops, and the diversion ditches installed during construction will remain in place. Solutions in the ponds will be evaporated and the resulting solids will be sampled and analyzed to determine if it has any potentia degrade the waters of the State. If so, it will be removed and disposed of in a manner approved by NDEP. If acceptable it will be folded in with the primary liner and buried with the pond. Pond areas will be backfilled, and graded, and after spreading of topsoil will be reseeded. All slopes will be stabilized and berms and ditches destroyed.

4.3.5 Corrective Actions

During compliance inspections, NDEP noted the recurrence of process solution discharge from the west side of mill building onto native soils. During one inspection, NDEP personnel found that the saturated soils resulting fr a release had been covered up with about 5 inches of uncontaminated soil. Echo Bay Minerals Company respond by completing repairs which initially caused the spill, and investigating clean up of the original release. While th contaminated soil had been removed and replaced with uncontaminated soil, no records had been kept regarding t amount of material removed and improper clean up procedures were used. Echo Bay performed a second remediation and performed the necessary sampling to ensure all the contaminated soil was removed and process through the mill facility. Disciplinary action was taken against the personnel involved in the first clean up, and an HDPE liner was installed on the upper part of wall within the mill building to ensure no further releases from the mill building would occur.

In a separate case, Echo Bay also reported to NDEP changes in water chemistry which were detected in monitorir wells. These changes included high levels of fluoride and increased pH levels. Echo Bay retained a hydrogeolo consulting firm to determine the if contamination of the groundwater occurred and the source. The consulting firm determined that the fluoride levels were naturally occurring and the increased pH levels were caused by improper monitoring well sampling protocols. Echo Bay revisited and revised their monitoring well sampling plans accordingly.

5. COMPARATIVE ANALYSIS

5.1 Statement of Purpose

The purpose of 40 CFR 192 is to correct and prevent contamination of air and the groundwater beneath and in the vicinity of inactive uranium processing sites. These sites were contaminated throughout the cold war during uranium mining and milling operations. EPA promulgated 40 CFR 192 after the enactment of the UMTRCA, which was enacted to remediate these abandoned facilities. In general, 40 CFR 192 governs management of the waste, i.e. uranium byproduct material and the design, operation, and closure of surface impoundments and facilities through cross reference to the RCRA regulations. The RCRA regulations provide standards applicable to the design, operation and closure of facilities with tailing impoundments.

Nevada, on the other hand, promulgated its State regulations governing the design, construction, operation, and closure of its mining operations to prevent degradation of the water from active operations. Nevada regulates the design, operation, and closure of its leaching facilities, along with the tailings and disposal sites specifically to ensure protection of the waters of the State during operation and after closure. Nevada's framework is intended to govern the design and operation of the process component of the facility prior to the waste generation. In practice, of course, since most tailings impoundments are left in place at closure, the regulations effectively address waste management design as well.

Provisions are made for facilities in existence prior to promulgation of the regulations. However, Nevada mining regulations require planning for the proper handling of mill tailings, and facility closure and site reclamation is determined during the design and construction phases of the projects.

5.2 Technical Differences

When comparing the two frameworks it is necessary to remember that recovery of gold from ores does not produce a radioactive waste with potential radioactive environmental and health effects. Second, the value of the ores is substantially different due to each ton of ore yielding either several pounds of uranium metal compared to 0.08 and higher troy ounces (approximately 0.006 pounds) of gold.

In regulating the design, operation and closure of tailings impoundments The State of Nevada uses to their advantage the low precipitation, high evaporation, and relatively deep groundwater typical throughout the state. This would be extremely difficult for the federal regulations to enact do to the varied environmental conditions found throughout the United States.

5.3 Regulatory Comparison

A tabular comparison of the regulatory criteria applicable to heap leaching for Nevada, 40 CFR 192, and the three facilities discussed is shown in Table 5.3-1.

Table 5.3-1 - Comparison of the Regulatory Criteria for Mill Facilities and Tailings Impoundments

Regulatory Criteria	Nevada Regulations NAC 445A, 519A	40 CFR 192	Newmont Rain Facility	Barrick Bullfrog Mine	Echo Bay McCoy/Cove
Permits required	Mining, reclamation and dam permits required prior to operation	Licenses to operate waste management and disposal units. No reclamation or dam permits required	State Water Pollution control permit. Reclamation Permit Dam Permit	State Water Pollution control permit. Reclamation Permit Dam Permit	State Water Pollution control permit. Reclamation Permit Dam Permit
Geological Assess.	Ability of geology to inhibit contaminant migration	Only specified if seeking an exemption to liner requirements	Assessed Soils and clays underlying tailings impoundment and ability to prevent solution seepage into the groundwater.	Assessed Soils and clays underlying tailings impoundment and ability to prevent solution seepage into the groundwater.	Assessed Soils and clays underlying tailings impoundment and ability to prevent solution seepage into the groundwater.
Hydrogeological Assessment	Identify all drinking water wells within 5 miles down gradient of the site. Depth of surface to groundwater. Quality, uses and potential uses of the ground and surface water within the area of review.	Only to exclude constituents from the 40CFR261 appendix VIII list - 264.92(b)(1)	Identified groundwater sources, quality, and depth to groundwater.	Identified groundwater sources, quality, and depth to groundwater.	Identified groundwater sources, quality, and depth to groundwater.
Topographical Evaluation	Identify known surface waterways, streams, springs, and seeps within 1 mile radius. Distance to all surrounding bodies of surface water.	Not specified	Identified surface water sources including seeps. Identified topographical slope and placement of the tailings impoundment	Identified surface water sources including seeps. Identified topographical slope and placement of the tailings impoundment	Identified surface water sources including seeps. Identified topographical slope and placement of the tailings impoundment

Regulatory Criteria	Nevada Regulations NAC 445A, 519A	40 CFR 192	Newmont Rain Facility	Barrick Bullfrog Mine	Echo Bay McCoy/Cove
Post closure monitoring	Depends on site, but no greater than 30 years.	Minimum 30 years.	Groundwater monitoring will be performed throughout the closure period and longer as agreed to with NDEP. Any migration of contaminant plume outside the facility boundary which may impair beneficial use of the groundwater will be prevented including installation of a barrier well pumpback system.	5 year closure and monitoring and maintenance period	Seepage is collected until it stops.

6.0 CONCLUSIONS

Along with the distinct differences in the recovery processes discussed in section 5.2, the following items can b concluded regarding the two regulatory frameworks and the application of the Nevada regulations at three facil

- The minimum design criteria for the State of Nevada and 40 CFR 192 are substantially different. The : of Nevada minimum design criteria for tailings impoundments include a 12 inch thick soil liner with a coefficient of permeability of 10^{-6} cm/sec, or equivalent. The design criteria for tailings impoundments under 40 CFR 192 requires three layers of solution containment - two of flexible geomembrane and a bottom liner of 3 feet of compacted soil with a coefficient of permeability no greater than 10^{-7} cm/sec, geotextile leak detection collection system between the liners.

- Nevada regulations require review of dam design, construction and maintenance requirements prior to issuing a dam permit. 40 CFR 192 does not specify requirements for the dam associated with a tailing: impoundment.

- Nevada State regulations are written and enforced to prevent degradation to the waters of the state, whe the 40 CFR 192 regulations are written to prevent any release to the groundwater. Because of this difference the Nevada regulations require identification of all drinking water sources, groundwater and surface water sources and quality.

- Nevada closure requirements are focus on preventing degradation of the waters of the state, and conver the land to a post-mining use. Also due to the low precipitation and high evaporation rates, typically st wide, final covers are designed to hold precipitation for subsequent evaporation. 40 CFR 192 requires dewatering, stabilization, and installation of a cover which will prevent precipitation from moving through the impoundment.

- Nevada regulations for post closure monitoring are established on a facility basis, but is no longer than : years. 40 CFR 192 requires monitoring of no less than 30 years.

- The three mines evaluated generally adhered to the requirements of the State of Nevada, however, the l of some documentation made it difficult to verify liner thickness and coefficient of permeability.

- All of the mine sites promptly responded to the NDEP requests for further information or corrective acti for deficient operations.

Attachment 1

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Tom Myers, Ph.D.

My expertise and research on this issue primarily concerns water quantity and the impacts of mining on groundwater hydrology and the surface expression of groundwater, primarily springs, river, streams and riparian areas. For my research, I have used public information obtained from the Nevada State Engineer's office, the US Geological Survey, the Nevada Dept. of Environmental Protection, and the Bureau of Land Management as well as data published in environmental impact statements. My interest in water quality stems from the fact that contaminants are transported in groundwater and surface water. I will report on data collected from offices of NDEP. I will focus my discussion of the hydrologic impacts of mining on the regulatory framework for permitting contained in the current Section 3809 regulations and the need for their reform. Attached to my testimony is a paper to be published in October by the American Water Resources Association in the Proceedings of their 1997 Annual Conference and the abstract of a paper presented on September 8 at the American Chemical Society Conference in Las Vegas.

The Problem

When companies excavate open pit mines below the water table, they must dewater the surrounding aquifer so that water does not flow into the pit and destabilize the pit walls. There are four primary localized hydrologic impacts caused by such mining. First, dewatering lowers groundwater levels in the vicinity of the mine. This impacts springs and surface water by changing the flow gradient in the vicinity of the pit. I will provide two examples of this impact. A hot spring over seven miles from the Lone Tree Mine (the mine is located within two miles of the Humboldt River) went dry, presumably due to dewatering. During exploration activities in Crescent Valley, when the exploration company hit artesian water, the flow at a hot spring over five miles almost immediately decreased by ten percent.

Second, the open pit and drawdown cone around the pit represent a deficit to be made up after mining, and dewatering ceases. The pit was originally all rock and pore spaces filled with water would have made up only about 1 percent of the pit in bedrock and up to 20 percent of the pit in alluvium. After mining ceases, if the pit is not backfilled, a pit lake will form, and the amount of water in that area will be up to 95 times more than existed prior to mining. This water must come from somewhere. The drawdown cone[1] also represents a deficit because it primarily represents water that has been pumped and consumptively used or otherwise lost to the local groundwater system. The two most impactful mines on local groundwater deficits are the Twin Creeks Mine northeast of Winnemucca and the Lone Tree Mine between Battle Mountain and Winnemucca. Twin Creeks will create a 460,000 af pit lake which will be the second largest manmade lake in Nevada if we include Lake Mead. The drawdown cone will be about 200,000 af so the total deficit caused by this mine is 660,000 af. The Lone Tree Mine will create a pit lake of

[1] Pumping from a well, or a series of wells around an open pit, causes groundwater to flow toward the point of removal. A gradient toward the mine is created because groundwater flows downhill toward the mine. Viewed in three dimensions, the surface of the water table resembles a cone.

102,000 af and during dewatering discharge to the Humboldt River almost 1,000,000 af. This mine creates a deficit of almost 1.1 million af sitting just 2 miles from the Humboldt River.

Third, the quality of water in the pit lakes, after they form, depends on the source of water refilling them. The mining companies and BLM predict this quality using complicated geochemistry models. However, the models depend on the quality of hydrologic data, predictions of the inflow to the pit. I performed basic sensitivity analysis of the pit lake inflow at the Pipeline Deposit mine[2] and showed that very reasonable assumptions of the geology near the pit led to estimates of inflow that caused the time to refill to vary from 8 to over 100 years. The BLM predicted an inflow rate of 12 years which was used to model the chemistry in the pit. My assumptions involved increasing the complexity of the geology as represented in the model to test the simplifying assumptions use by the BLM. In other words, I more accurately characterized the system to show the major problems with the predictions. The bottom line is that the predictions are rather useless.

Fourth, the pit lakes will evaporate water in perpetuity. This represents a permanent loss of water from the flow in local basins. For example, the Pipeline Pit, at full development after the several piecemealed expansions are complete, will evaporate well over 1400 af/yr while recharge to the entire Crescent Valley is less than about 14,000 af/yr. This is ten percent of the total recharge in the valley.

The cumulative impacts of mining are rarely considered, although NEPA requires such consideration[3]. For example, the Humboldt River watershed contains 18 mines that are either currently or soon to go below the water table and require dewatering.[4] Total deficits from these mines (as described above) represent 62% of the water stored in the surface aquifer of the Humboldt River[5]. Natural flow in the river near Winnemucca, including both groundwater and surface water, is less than 200,000 af/yr. The total deficits in the Humboldt River basin equal more than 25 years of the entire flow at Winnemucca. Modeling for most of the pits suggest that refill of the pits and drawdown cones will require less than 25 years. Fortunately, I do not own water rights or property I want to develop downstream on the Humboldt River.

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[2] Paper presented to the American Chemical Society, see attachment.

[3] Most of the data presented in this paragraph are documented in the attached paper to be published by the American Water Resources Association.

[4] Personal communication from the Nevada Bureau of Mines.

[5] There are approximately 5,000,000 af of deficit being created and 8,000,000 af of storage in the aquifer. Since the writing of the attached article, two additional mine proposals, Leeville and the Gold Quarry Expansion, have increased our estimate of the deficit.

Quoting from a State of Nevada report: "Changes in water stored beneath the flood plains of the river system may be an important factor in controlling the magnitude of the flow in the Humboldt River"[6]. Open pit mines represent a major change in storage of water beneath the flood plains; the authors of this report, written long before the advent of large open-pit mining along the Humboldt River, seem to suggest that deficits created by open pit mining represent a potential major impact to surface flows in the Humboldt River.

It cannot be overemphasized that these impacts are unprecedented in the history of mining anywhere in the world. While mining companies return large profits from underregulated mining, society is allowing a massive uncontrolled experiment on the environment of northern Nevada. It is not too late to do anything about it, but we are reaching that point. The rest of this testimony includes discussion about what the BLM should currently be doing, the needed changes in the regulatory framework, and needed mining law reform.

Federal Regulation Through 3809 Regulations

Many of the impacts discussed above could be avoided or mitigated by reclamation of the pits, including complete or partial backfilling, or through adequate bonding to either remedy or compensate individuals adversely impacted in the future. Section 3809 of Title 43 of the Code of Federal Regulations provides the BLM's regulations to govern hardrock mining. Currently, the BLM is attempting to modify, or hopefully, reform these regulations. First, I emphasize and will discuss below that the BLM, under current regulations has the authority to adequately regulate and mitigate these impacts. But regulatory reform could help them in this process as I will elaborate below.

My remarks focus on plan level operations because these cause the majority of impacts to water resources.

The BLM is required to prevent "unnecessary or undue degradation" defined as:

> surface disturbance greater than what would normally result when an activity is being accomplished by a prudent operator in usual, customary, and proficient operations of similar character and taking into consideration the effects of operations on other resources and land areas, including those resources and uses outside the area of operations.[7]

That the definition specifies "surface disturbance" may allow some to argue that impacts on groundwater resources do not represent "unnecessary or undue degradation". The BLM

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[6] Eakin, T.E. and R.D. Lamke, 1966. Hydrologic Reconnaissance of the Humboldt River Basin, Nevada, Water Resources Bulletin No. 32. State of Nevada, Dept. of Conservation and Natural Resources, Carson City, NV.

[7] 43 CFR § 3809.0-5(k).

myopically focuses on surface disturbance while ignoring the long distance impacts of drawdown and contamination. Impacts which may not occur until after mining ceases are even more difficult for the agency to consider. However, the impacts of drawdown caused by dewatering and pit refill clearly impact surface water and land. For example, drawdown has already caused sinkholes to form in Maggie Creek. It has caused springs to dry. If the flow in any streams is substantially reduced, the riparian vegetation may dry which is also a surface impact. This is clearly a surface disturbance.

However, the definition also included "resources and uses outside the area of operations". This would seem to include impacts on land away from the pit and implies impacts due to other than direct disturbance. Continuing with the definition: "Failure to comply with applicable environmental protection statutes and regulations thereunder will constitute unnecessary or undue degradation."[8] One such statute is the Clean Water Act. Surface discharges of contaminated groundwater are regulated under this act. Poor pit lake chemistry may cause downgradient springs to discharge contaminated water. If dewatering causes poor quality water to be discharged to a surface water source, a CWA violation occurs.

Nevada regulations are quite clear (if not enforced):

> Bodies of water which are a result of mine pits penetrating the water table must not create an impoundment which, (a) has the potential to degrade the ground waters of the state; or (b) has the potential to affect adversely the health of human, terrestrial or avian life.[9]

The Nevada regulation is clearly "applicable" law and many pit lakes have the potential to cause such degradation. The BLM's current permitting regulations require that "[a]ll operations...comply with all pertinent Federal and State laws, including but not limited to the following"[10] and then goes on to list water quality and state "[a]ll operators shall comply with applicable Federal and State water quality standards...".[11] The referenced Nevada regulation requires prohibition of pit lakes which have "the potential to affect adversely the health of human, terrestrial or avian life"[12].

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[8] 43 CFR § 3809.0-5(k).

[9] NAC 445.24352

[10] 43 CFR § 3809.2-2.

[11] 43 CFR § 3809.2-2(b).

[12] See Note 9.

Evaporation of water from the surface of a pit lake is wasted water and should be interpreted as such and prevented by the Nevada State Engineer. Nevada State water law[13], as I read it, does not contain any passages allowing this evaporation to occur. However, these lakes will form and will waste up to more than 10 percent of a basins recharge. It is the duty of the Nevada State Engineer to prevent such waste, but to date, there has been no such enforcement.

Thus, BLM clearly is required to prevent the development of such a lake, to prevent contaminated pit lakes and evaporation wastage, even based on its' current regulations.

The State of Nevada regulates groundwater appropriation. This would include appropriation of water for dewatering purposes. But Nevada State water law does not allow groundwater withdrawals to exceed the natural recharge to a basin. Unfortunately, about fifteen years ago there was a decision that dewatering was temporary and therefore withdrawals could exceed recharge. For this reason the State Engineer allows groundwater permits that increase pumpage from a basin far beyond the recharge amounts. It is difficult to argue that projected mine lives through the year 2036 represent temporary withdrawals. Based on discussions in the previous paragraph, BLM has current authority and the requirement to prevent groundwater mining to be a result of current mining operations.

As mining developed in northern Nevada, impacts that could not have been initially expected became apparent. BLM has the legal authority and moral requirement to require changes in the plan of operations of any mine contributing to a prior unexpected impact.

> If the authorized officer determines that (existing) operations are causing unnecessary or undue degradation of the Federal lands involved, the authorized officer shall advise the operator of those reasonable measures needed to avoid such degradation, and the operator shall take all necessary steps to implement those measures within a reasonable time recommended by the authorized officer.[14]

It follows that changed conditions could, and should, lead to a cessation of permitting in certain circumstances until the impacts can be adequately mitigated. We suggest that the massive cumulative impacts of mining on water resources in the Humboldt River basin require such changes in existing plans and a possible temporary cessation of permitting within certain regions of the basin. This cessation should be continued until the impacts have been adequately studied[15]

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[13] NAC Chapters 532 to 538, Chapters 540, 543 and 544.

[14] 43 CFR § 3809.1-8(b).

[15] There is currently an ongoing study by the US Geological Study of impacts in the Humboldt River basin. It is a nine-year study currently funded by the industry for just the first three years. I know of no additional funding for this study which means it will cease after three years of data collection.

and permitted. The Nevada State Engineer also has the authority[16] to require any additional studies needed to determine potential impacts thereby protecting downstream ranchers and Nevada's environment. He may disallow any additional dewatering permits until such a study has been completed. To date, he has been unwilling to require these desperately needed studies.

It is clear that the BLM has the authority in the existing 3809 regulations to adequately protect the environment from negative impacts of hardrock mining. Long distance impacts should be regulated and groundwater impacts clearly cause a surface disturbance. Nevada state law prohibits the creation of contaminated pit lakes and groundwater mining and prevents the waste of water by evaporation from pit lake; the regulations require the BLM to enforce these laws if Nevada is unable as has the State has demonstrated many times. New circumstances, such as substantial dewatering, should trigger the BLM to require changes in existing plans, cessation of new permitting, and the completion of relevant studies. But the regulations are not specific and the new regulations should provide more specifics to allow, or require, the BLM to protect water resources from the impacts of hardrock mining. After discussing the types of mitigation that BLM could require, I will recommend specific changes in the regulations.

Potential Mitigation

There are three ways to mitigate groundwater quantity impacts and some of the long-term losses. One is to require pit backfill, at least to the point that groundwater inflow will create a pit lake. Backfilling the pit to the level of the groundwater would also decrease the deficit caused by the pit itself. This would decrease the total deficit in the Humboldt River basin discussed above from 5,000,000 af to about 3,000,000 af. It would also eliminate much of the long-term, permanent evaporation loss. BLM has required backfill at several small projects[17], but these would have had only small impacts on long-term deficits. Too often, the BLM argues that backfill is too costly. This is not a legitimate argument since one of BLM's responsibilities is to prevent "unnecessary and undue degradation" and there is no requirement in Section 3809 that the BLM consider the cost of the mitigation. BLM cannot prohibit mining, but there is no requirement that BLM not require justified costly mitigation. If a requirement can be met by most of the industry, the fact that it may render some operations unprofitable is not, and should not be the BLM's concern. Another argument against backfilling is that backfill may cover resources that could be recovered in the future if gold prices go up or additional discoveries are made. The fact is that once a pit lake forms, the low quality of the water would probably prevent discharge to any

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[16]NAC 533.368

[17] These include Florida Canyon east of Lovelock and Denton Rawhide northwest of Gabbs. Backfill was required but was convenient due to the sequential pits being mined.

surface water and the resources covered would be essentially lost[18]. This is not a legitimate argument.

A second solution is to require recharge of dewatering water. Unfortunately, it is only applied at mines which are furthest from the Humboldt River and which have the least potential for significant impacts on overall basin water resources. This includes Echo Bay and the Pipeline Deposit mine. We support the concept, but it is not as good an answer as the environmental documents would suggest. For example, all of the dewatering discharge, minus consumptive use and evaporation, at Pipeline would be recharged. But faulty hydrologic measurements and groundwater models led to a prediction that less than 120 acres of basins with rotating use would suffice. There would only be 50 af/y of loss to evaporation. Recently, there was a plan change and the recharge ponds will triple in size and evaporation loss will increase by 16 times. My groundwater analyses shows that the usefulness of groundwater recharge in this basin is much less than predicted because of the sensitivity of certain hydrologic parameters in the model to very small changes. Also, the BLM does not require recharge if it is too costly. For example, at the Lone Tree Mine, recharge is feasible, but a ten-mile canal would be required. Instead, almost 1,000,000 af of water will discharged to the Humboldt River and lost to the middle Humboldt river basin. Recharging as proposed by Great Basin Mine Watch basin would allow water to reach the Humboldt River at the time the pit is refilling.

The third and perhaps most essential aspect of preparing for future problems is to require adequate bonding. Current bonding requirements[19] are generally based on area of land disturbed[20], however the BLM does have significant leeway in this matter. The operator, "[a]t the discretion of the authorized officer, be required to furnish a bond in an amount specified by the authorized officer". This suggests that upon documenting potential impacts or uncertainty in the prediction of impacts, the authorized BLM officer should require adequate bonding to remedy problems that occur after operations have ceased. The requirement should include a provision to allow the BLM to hold the bond for many years after the mine closes because of the time for pit lakes to refill[21].

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[18] This is the case at the Arimetco Pit outside of Yerington, NV. The mixing ratio is 22:1, I believe, which means the mine could be pumped into the Walker River at rates such that pit water would be less the 1/22 of the river water.

[19] 43 CFR § 3809.1-9.

[20] "In determining the amount of the bond, the authorized office shall consider the estimated cost of reasonable stabilization and reclamation of areas disturbed." 43 CFR § 3809.1-9(b). I will note that the BLM required a bond at the Pipeline Deposit of about $1,000,000 (I cannot locate my copy of the Record of Decision).

[21] Estimated times to refill vary from 12 years at Pipeline to over 100 years at Gold Quarry. These estimates are quite uncertain. See Note 2.

The cumulative impacts occurring in the Humboldt basin present a unique problem for bonding. Because offsite impacts may not be assignable to a specific mine or company, there needs to be an escrow account into which all mine deposit some bonding and from which all impacted parties would be able to receive a remedy. It is because of this problem that the Sierra Club supported legislation in the Nevada State Assembly to require a fee for certain rates of dewatering. A mitigation and research fund would have been established to provide for research of dewatering problems and to compensate or remedy impacted persons in the future.

Suggested Regulatory Changes

While the BLM currently has authority to require most needed changes in the permitting procedures, there are reforms to 3809 Regulations that would make it easier for the agency to enforce existing environmental laws. There is also pending legislation, the Rahall bill[22], in the House of Representatives referred to this committee that we strongly support and will briefly discuss below. It must be remembered that BLM is free to require any technology or procedure necessary to avoid "unnecessary and undue degradation" of public lands as long as the majority of the industry can comply. BLM is not required to consider the economics of the situation or to insure industry or company profits. The remainder of this testimony will include some specifics regarding 3809 regulations and how they may be improved to accommodate the major water resources impacts documented above.

In order to prevent "unnecessary and undue degradation", the regulations should clarify what is meant by "not unduly hinder such activities but will assure"[23] that they not degrade public lands. These statements are contradictory in that it may be that to "assure" there will be not be "unnecessary or undue degradation", some operations will be unduly hindered. As argued above, BLM need not consider economics, therefore there is no reason to prevent the hindrance of some activities.

The objective that provides "for the reclamation of disturbed areas"[24] should be amended to clarify that "disturbed areas" include areas that are impacted both directly by surface disturbing activities and indirectly by dewatering, contamination, spills, etc.

The definition of reclamation[25] should be amended to include a provision requiring the restoration of the natural hydrology to the extent possible.

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[22] HR 253, the Mineral Exploration and Development Act of 1997

[23] 43 CFR § 3809.0-2(a).

[24] 43 CFR § 3809.0-2(b).

[25] 43 CFR § 3809.0-5(j).

The definition of "unnecessary or undue degradation"[26] should be amended to include disturbance to local and regional hydrologic resources. This should define degradation to include the drying or contamination of springs, streams, seeps, and wetlands, both onsite and offsite due to indirect impacts linked mining activities.

Procedures for requiring the modification of a plan based on changing conditions should be clarified. Currently, "[o]perations may continue...,unless the State Director determines that the operations are causing ...degradation to the land"[27]. Also, if the authorized office determines that operations are causing ... degradation of the Federal lands involved, the authorized officer shall advise the operator of those reasonable measures needed to avoid such degradation, and the operator shall take all necessary steps to implement those measures within a reasonable time..."[28]. If the changes in definition of unnecessary and undue degradation are changed as suggested above, the State Director or authorized officer could require changes based on impacts on offsite water resources. We suggest that the regulations be changed to clarify when changing conditions warrant a change in operations. A single mine in a basin does not have the same impact as several; it seems equitable to require changes throughout the basin rather than to put all of the mitigation requirements on the last mine to permitted. For example, the existing Pipeline Deposit mine does not have the impacts to Crescent Valley as it, the Pipeline expansion, and development of resources currently being explored about five miles across the valley would have on the valley and people living therein. BLM needs to be able to implement changes to all operations as companies propose future operations.

Bonding requirements should be amended to allow the amount of bond to be based on the potential for offsite impacts on water resources, including those impact that may be manifest on subsurface resources. "[T]he authorized officer shall consider the estimated cost of reasonable stabilization and reclamation of areas disturbed."[29] Some may interpret this to not include subsurface or offsite resources, therefore the bonding requirements should be changed to adequately reflect the impact of mining on the environment. Also, there should be a provision to allow a portion of the bond to be held beyond the actual surface reclamation of the mining site.[30] This portion would be based on the time for offsite impacts on water resources and other

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[26] 43 CFR § 3809.0-5(k).

[27] 43 CFS § 3809.1-7(c)(4).

[28] 43 CFR § 3809.1-8(b).

[29] 43 CFR § 3809.1-9(b).

[30] For example, "[w]hen all or any portion of the reclamation has been completed in accordance with the approved plan, the operator may notify the authorized officer that such reclamation has occurred and that she/he seeks a reduction in bond or Bureau approval of the adequacy of the reclamation" 43 CFR § 3809.1-9 (f). This section continues to prescribe that the BLM shall return the bond.

resources. It is impossible to ascertain "on inspection" that the offsite impacts will not occur. It is important to note that the drawdown cone created around a mine for dewatering will continue to expand after dewatering ceases. For example, the drawdown cone, as represented by the 100 foot drawdown line, around Twin Creeks will expand for almost thirty years after mining ceases. The operators of this mine should remain responsible for the effects caused by the expanding drawdown cone.

A final recommendation needs to address the issue of noncompliance. When the BLM issues a Record of Decision based on a Final EIS, the operator is responsible for carrying out the Plan as specified. When the operator makes changes without BLM analysis and approval, the BLM should have the authority to levy fines and suspend operations. For example, a local mine built a pipeline across public land when the EIS specifically disallowed this construction. BLM needs more authority to deal with these problems on a day-to-day basis.

As stated above, the Sierra Club and Great Basin Mine Watch strongly support enactment of the Rahall Bill, HR 253, the Mineral Exploration and Development Act of 1997. Many of the concerns and impacts discussed above would be remedied. Many of the suggested regulatory changes would be codified. It specifically refers to the protection of water resources. It establishes a fund to clean up degradation to surface and, importantly, water resources caused by previous mining.

Conclusion

The gold mining industry has expanded from 1 million ounces in 1980 to 13 million ounces today. This is a remarkable expansion and has led to rapid growth in rural Nevada and other states. Mining is a very important part of the economy of Nevada and should remain so. But future citizens of northern Nevada, ranchers, farmers and cities, should not be paying the debts created by present day mining. Denying these impacts is tantamount to burying our heads in the sand. We are requesting baseline standard to protect the environment of northern Nevada and the western United States. "Baseline standards set on an industry-wide level ensure that reasonable environmental regulation is bounded not by the economic travails of companies on the edge of profitability seeking minerals of questionable value, but by a societal balancing of our potentially contradictory desires to preserve the public lands while simultaneously extracting valuable minerals from them."[31] Preferably these changes would occur through enactment of HR 253, but strong changes in the Section 3809 regulations would be a major step in the right direction.

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[31] Graf, M., 1997. Application of takings law to the regulation of unpatented mining claims. Ecology Law Quarterly 24:57-130.

UNCERTAINTIES IN THE HYDROLOGIC MODELING OF PIT LAKE REFILL. T. J. Myers, Hydrologic Consultant, 200 Bartlett St., Reno, NV 89512, tom@black-rock.reno.nv.us

Water quality models in filling pit lakes depend on estimates of the inflow rate which depend on the assumptions defining the aquifers. For example, modelers simulated flow in aquifers around a mine in northern Nevada with layers corresponding to playa, alluvium and bedrock. The estimated hydraulic conductivity of the different bedrock layers varies from 0.01 to 0.04 meters/day. Models using 0.04 m/day estimated the pit will fill to 90 percent of its pre-mining groundwater levels, a volume of 30 km^3, within twelve years. Using a six-layer model with actual hydraulic conductivities, the estimate increased to over twenty-five years. Sensitivity analysis using published conductivity ranges in the different layers suggests the refill time will range from about 10 to 50 years. The inflow rate and source is very sensitive to the vertical conductivity among layers. Groundwater modelers around open pit mines should consider the sensitivity of the aquifer.

ABSTRACT. Please be BRIEF—150 words maximum if possible. Title of paper should be ALL CAPS; author(s) listed by first name, middle initial, last name; indicate address w/zip code. SINGLE SPACE, BLACK INK.

A. DIVISION OF Geochemistry and Education

B. MEMBER ☐ Yes ☒ No

C. TITLE OF PAPER

Uncertainties in the Hydrologic Modeling of Pit Lake Refill

Please indicate preference: ___X___ oral _____ poster

D. AUTHORS

Principal Author:

Surname	First Name	MI
Myers	Thomas	J.

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G. For contributed papers, do authors meet criteria outlined in ACS Bylaw VI, Section 6(3)? See instructions.

☐ Yes ☐ No

NOTE: ALL PRESENTING AUTHORS MUST REGISTER FOR THE MEETING—EITHER FULL MEETING REGISTRATION OR ONE-DAY REGISTRATION FOR THE DAY OF PRESENTATION.

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Groundwater Management Implications of Open-pit Mine Dewatering in Northern Nevada

Tom Myers[1]

ABSTRACT: The Humboldt River basin in northern Nevada provides more than half of the current United States' gold production. Most of this mining occurs in deep, open pit mines excavated up to 1000 feet below the groundwater table. A basinwide water balance model suggests three factors lead to deficits and future negative impacts to other groundwater users and natural amenities. First, mines pump water for processing ore and dewatering. However, they discharged more than half of the pumped water, which totaled 850,000 acre-feet between 1992 and mid-1996, to surface sources which causes not only waste but also recharge. Projected pumpage is more than 3,000,000 acre-feet by 2010. Second, the pits themselves represent a deficit in that large lakes, up to 460,000 acre-feet, will form after dewatering is stopped. The total deficit will exceed 4,000,000 acre-feet in a basin with total storage of 8,000,000 acre-feet in the surface aquifer and annual flows of less than 200,000 acre-feet. Third, evaporation from pit lakes will exceed three percent of the annual surface and groundwater flow. Detailed water balance modeling shows greater potential impacts on subbasins, with some areas having deficits of more than half of the storage and evaporation more than five times the outflow and 25 percent of the recharge to the basin. There is much uncertainty regarding the source of water to fill the deficits and the impact on the flows in the Humboldt River. Additional research,. including a groundwater model of the basin, is necessary to address uncertainties suggested by the water balance model.
KEY TERMS: Nevada, Humboldt River, mine dewatering, open-pit mining

INTRODUCTION

Total mineral production in Nevada had an estimated value of near $3.2 billion in 1995 and directly provided 13,700 jobs and indirectly another 47,000 jobs (NV Division of Minerals, 1996). The Humboldt

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River basin in northern Nevada provides more than half of the current United States' gold production. Most of this mining occurs in deep, open pit mines excavated up to 1000 feet below the groundwater table. Between 1990 and mid-1996, mining companies pumped 840,000 acre-ft of groundwater (af) for mining, milling and dewatering (NV State Engineer, 1996, personal communication). Based on examination of individual pumping permits, almost 90 percent of the pumpage was for dewatering.

The potential impacts of drawing the water table down over 1000 feet and creating huge manmade lakes drawn exclusively from groundwater throughout an arid region watershed are quite substantial. For example, Crompton (1995) identified 1, 5 and 11 subbasins in the Humboldt River basin in which dewatering would lower the water table more than 100 feet greater than 6 miles from, between 2 and 6 from, and within 2 miles of existing mines. The purpose of this paper is to outline potential effects, providing quantitative information when possible and to discuss several hydrologic concepts with respect to this dewatering.

GEOLOGIC SETTING

The Humboldt River basin (Figure 1) contains nearly 17,000 acres and is a basin of interior drainage within the Basin and Range physiographic province (Eakin and Lamke, 1966). The study area (Figure 1) includes approximately the middle two-thirds of the basin. Mountain ranges lie primarily on a north-south tract with alluvial valleys and meandering streams separating them (Figure 2). Relief approaches 6000 feet as crest elevations sometimes exceed 10,000 feet and valleys dip below 5000 feet. The Humboldt River starts in the far eastern part of the state at an elevation less than 5000 feet and meanders westward across more than two-thirds of Nevada, dropping about 1000 feet and terminating in the Humboldt Sink, a major wetland complex. Tributaries flow east or west from the ranges collecting in the many valleys through which they flow north or south to the mainstem. Most elevation change in the system occurs within a few miles of the mountain crests leaving most of the flow in wide, meandering, low-gradient channels in the alluvial valleys. Because of the low-gradient, meandering form of the river system, it is impacted heavily by drought.

Eakin and Lamke (1966) estimated that the top 100 feet of the alluvial aquifer stores approximately 28,000,000 af of water. However, within seven miles of the river, the storage drops to 8,000,000 af. With flows averaging less than 200,000 af, the natural fluctuations in groundwater storage are slight such that levels change

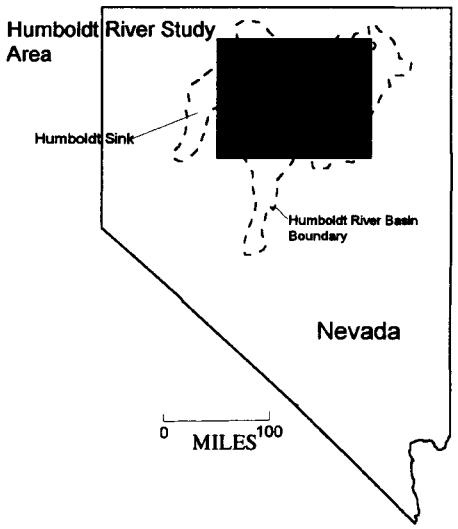

Figure 1: Location map of study area (rectangle) and Humboldt River Basin. Flow is from east to west to the Humboldt Sink.

little from year to year. Cooley and Westphal (1974) found groundwater levels intersect with the river in the Winnemucca area. Well data obtained from the US Geological Survey in 1996 show levels less than 10 feet below the surface in the middle portion of the river below Battle Mountain (Figure 2). This suggests a connection exists between the unconfined aquifer and river.

METHOD OF ANALYSIS

Data sources for open pit mines were primarily the environmental documents filed by the mining companies in support of their mine. Analysis primarily consisted of examining the water balance for the entire basin and individual subbasins. Impacts that seem small over the entire basin may be much larger for smaller basins.

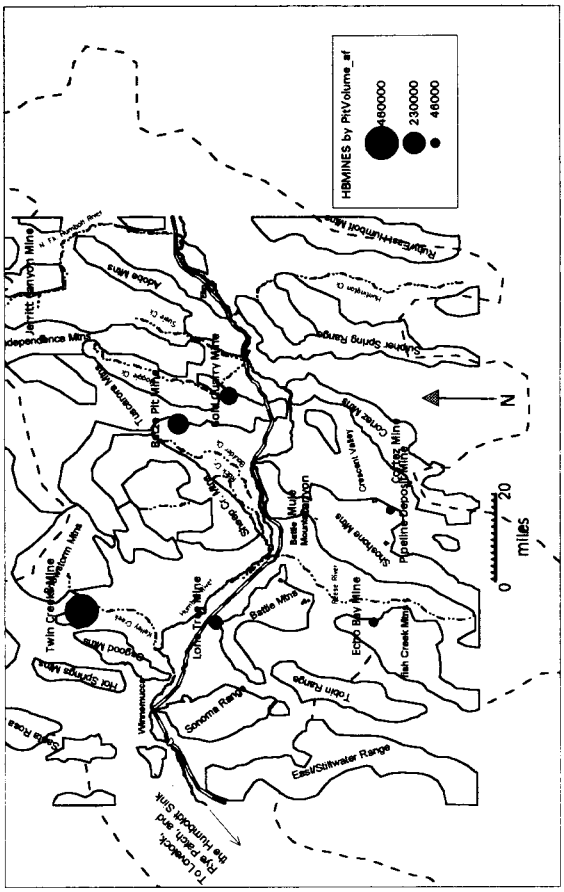

Figure 2: Map of study area showing location of mines and the pit volume sizes. The primary deficits occur in the Maggie/creek, Boulder Creek and Kelley Creek basins.

The focus of this analysis is long-term impacts due to deficits that will not begin to be satisfied until mining in the basin ceases. Current pumping for dewatering causes drawdowns that currently affect some surface sources. This will be discussed primarily as it indicates the scale of future impacts. The primary effect of dewatering is an increase in baseflow in the Humboldt River.

RESULTS

Long-term Deficits

Creation of an open pit below the groundwater table represents a deficit because a volume of rock will be replaced by a large pit which will fill with water. The total volume of pits, as shown in Figure 2, is about 1.1 million af. Pit volumes exceed recharge in the middle part of the basin (Figure 3) by as much as four times in Boulder Valley.

Pumpage of groundwater to dewater open pits creates deficits two ways. First, water is consumptively used for mining and milling, although this is relatively minor. Most of this usage is accounted for by the acquisition and retirement of local water rights. Second, water is discharged either directly to surface water where it will be displaced downstream, or recharged into the local basin. Surface discharges may be consumptively used by downstream users, who are currently experiencing water supply surpluses, or wasted into the Humboldt Sink. Because the recharge has always been down gradient from the mines and because it increases gradients out of the subbasin and increases levels beneath evaporating playas, much of the water is lost. The pumpage creates a drawdown cone with the open pit at the center. The volume of the cone minus the volume of any recharge mounds represents the deficit created by a mine. Between 1990 and 1993, pumping of near 100,000 af resulted in drawdowns of 800 and 100 feet for five and ten miles, respectively, from the Betze-Post Pit in the Boulder Creek basin (Maurer et al., 1996). Springs ten miles from another mine were reported dry after two years of dewatering (Chris Sewall, Western Shoshone Defense Project, personal communication, 1997). The total deficit in the Humboldt River basin is projected to be 4 million af.

Evaporation

Once pits refill with water, they will evaporate in perpetuity. Estimates from Farnsworth et al. (1982) suggest that about 30 inches would annually evaporate from these lakes. Adjusting with a factor of 0.9 for the steep side walls, evaporation calculations were made with

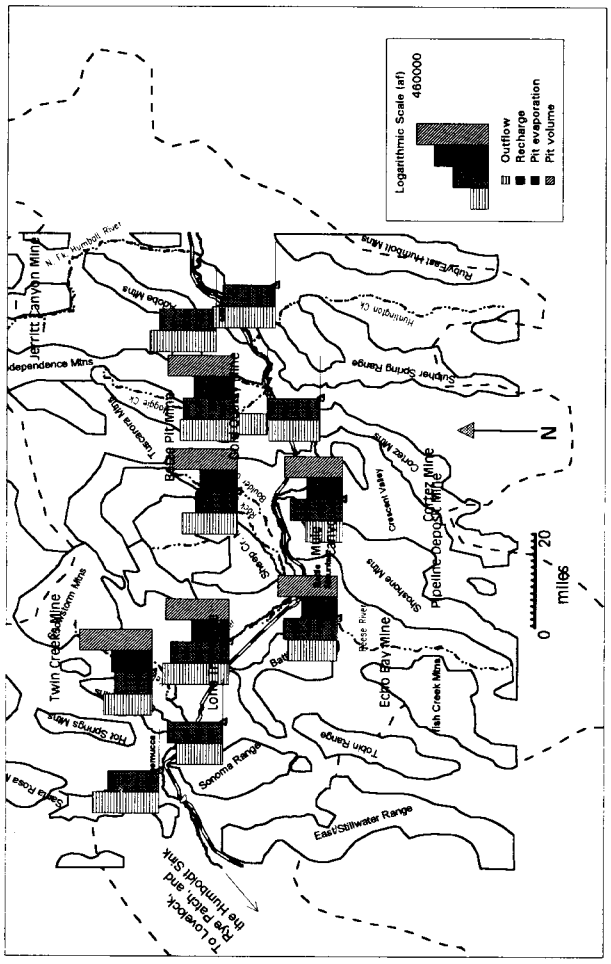

Figure 3: Distribution of hydrologic components by subbasin.

a 2.25 ft/yr. estimate. Evaporation is a substantial fraction of outflow and recharge from several basins (Figure 3, Crescent Valley and the Little Humboldt River).

DISCUSSION

There is a 4,000,000 af deficit being created by existing open pit mines in the Humboldt River basin of northern Nevada. There are three major unanswered questions about this deficit. First, what is the source of recharge to pits and drawdown cones? All of the pits intersect alluvial, unconfined aquifers with connections to the river. If 4,000,000 af is drawn from the 8,000,000 af stored near the river, the effects would be pronounced. However, the pits also intersect many bedrock layers. Some discharge reports (NV Dept. of Env. Protection, written communication, 1996 for the Lone Tree Mine) suggest that, due to high temperatures and geochemistry, much of the dewatering occurs in these aquifers. Bedrock aquifers are poorly mapped; their recharge zones and fractures are unknown. Some may be dewatered and unable to provide the recharge. For example, dewatering at the Betze-Post Pit, with the 800 foot drawdown discussed above, ceased for a period during 1996 and mining continued suggesting the aquifer was dewatered. The source of refill water is very questionable.

Second, what is the rate of refill? Longer refill times suggest less impact. Myers (1994) performed a modeling study on a hypothetical refill situation. Varying the hydraulic conductivity by two orders of magnitude caused the time to refill to vary from 11 to over 300 years. Hydraulic conductivity estimates for bedrock layers in the basin vary substantially. For example, Maurer et al. (1996) report that, in the Maggie Creek basin, "[m]easured ranges of transmissivity and hydraulic conductivity for the Vinini Formation (siltstones; table 2 (sic)) are 40 to 420 ft2/d and 0.0014 to 100 ft/d,..." Anderson and Woessner (1992) provide ranges for most materials that vary by several orders. Assumptions about the bedrock affect the predicted rates of dewatering pumpage. For the Gold Quarry Mine, initial estimates in the environmental documents were that by 2001, pumpage would equal 42,000 gallons/minute (gpm) (HCI, 1992). As of 1993, two years after mining commenced, pumpage exceeded this amount which suggests the estimates for pit refilling are also dubious (pumpage records on file with the NV State Engineer). HCI (1992) predicted the 150,000 af Gold Quarry pit will be 95 percent full within 18 years. The average annual refill amount exceeds 40 percent of the annual flow from the Maggie Creek basin (Figure 3). Because the company discharges dewatering excess, the source of refill will determine future impacts on Maggie Creek.

Third, what is the connection of the pits to the Humboldt River? Maurer et al. (1996) documented 100 foot drawdowns beneath Maggie Creek, but discharge to the creek prevents the stream from drying (although a sump hole formed in 1996). HCI (1992) predicted that during refill, there would be a decrease in flow in the Humboldt Rive equal to 8 cfs which would primarily fill the Gold Quarry pit. This mine is about 8 miles from the river. However, at the Lone Tree Mine less than 2 miles from the river with a 1000 foot drawdown, in the vicinity where water levels are less than 10 feet from the surface, the total predicted decrease in river flow is only 0.45 cfs during pi refill. This prediction stems from the assumption of a disconnect between the aquifer and river and a very low vertical conductivity in the bed of the river. This low conductivity is two orders of magnitude below that measured by Cooley and Westphal (1974) about 80 miles downstream in finer bed materials. Also, the modelers used a very high vertical anisotropy (>1000) because of the presence of clay layers in the aquifer.

Once the source of recharge for that deficit is known, it will b possible to estimate the long-term impacts of open pit refill. However, it is undeniable that long-term evaporation will exceed 5000 af/yr which is more than 3% of the total surface and groundwater flow out of the study area. This may seem small, but in an overappropriated river, considering that the effect will be to baseflow, fewer water rights will be satisfied in late summer due to evaporation.

CONCLUSION

The necessary conclusion to any independent analysis must be tha too little is known about the hydrogeology of the Humboldt River basi to predict with any confidence what will occur after mining ceases. The current state of knowledge is filled with uncertainty. Cumulativ effects analysis of long-term impacts to this ecologically important watershed in northern Nevada should be completed as future mines are proposed and permitted.

ACKNOWLEDGMENTS

The author acknowledges financial support from the Peradam Foundation and Great Basin Mine Watch. He also thanks Glenn Miller o the University of Nevada, Reno for information and review of his documents.

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CAREE

MONDAY - SEPTEMBER 22, 1997

SUBMITTED FOR THE RECORD

TO:

House Subcommittee on Energy & Natural Resource
United States Congress, House of Representatives
Honorable Barbara Cubin, (WY) Chairman

RE: Hearing - Elko, Nevada - 43 CFR 3809 -BLM Rules.

MADAM CHAIRMAN, HONORABLE MEMBERS:

Thank you for this opportunity to present information to Congress on the Public Land situation and more specifically on the 3809 BLM Mining Rule Rewrite implemented here in Nevada.

The information provided herein will be from a different approach than what would be normally presented involving the federal management of public lands here in Nevada. The cover attached to the exhibits herewith will be very brief because the resolve of the present problems entail very few propositions and even fewer answers to bring forth remedy by Congress. Therefore, two sub-parts are offered below. Part I sets forth the issues on why the present system of federal management of public lands within a Sovereign State has failed and will not work any longer. Part II sets forth suggested remedies at hand to restore the checks and balances established by the Constitution.

PART I
WHY THE PRESENT SYSTEM IS FAILING AND WILL NOT WORK

A. Our system of a Constitutional Republic has its teeth in the main element of Law that Property Rights are secured to the Citizen under the umbrella of Common Law.

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B. The united states central government is primarily an international government representing the Several States in the international theater. Outside the Enclave Clause, (Article I, Section 8, Clause 17, forts, arsenals, etc.) the federal land management agencies can only operate under the Property Clause, (Article 4, Section 3, Clause 2) which is a Territorial and Possession jurisdiction. The Commerce Clause lends some narrow jurisdiction in some cases but is now being heavily reined in by the Supreme Court.

C. The federal land agencies only have an Admiralty and/or Equity jurisdiction to regulate under since the Common Law jurisdiction was reserved to the Several States. Thereby we deduct that the agencies have no jurisdiction to protect the Nevada Citizen's common law rights absent direct statutory instruction from Congress. Without strict instruction from Congress, the Nevada Citizen has no remedy at law for the Fourteenth Amendment Equal Protections and Due Process, the Federal Judiciary and Federal Administrative Courts notwithstanding.

D. Congress has delegated to the Executive Branch and its agencies the power of rule and law making to carry out the statutes of Congress. This violates the separation of powers under our Constitutional system and reduces Nevada to Admiralty and Territorial/Possession jurisdictions. Exhibits "A-B" demonstrate that Nevada is a possessory enclave of the Executive Branch not any different than the Colonies were in the time of the king in 1776. The byproduct of drifting from our Constitutional Republican System will be illegal acts like the 3809 catastrophe before us today.

PART II
REMEDIES

A. If successful, the *US v. Gardner* case now on Petition to the US Supreme Court for the October Term could settle the entire issue and put established rights under the protection of common law by the State of Nevada.

B. Or if the *Gardner* matter does not prevail, Congress could simple implement a Quit Claim of its holdings to the State of Nevada with respect to the public lands, (US Forest Property included) and get out of the land business reducing the federal budget and helping to meet the 2002 deadline for a balanced budget. Congress still has plenty to own and manage in the Territories and Possessions like Guam and North Marianas etc.

C. If item "B" above is not acceptable, Congress should immediately implement legislation that returns the authority of rule and law making to itself and take over the full management of the public lands, forests and all other federally

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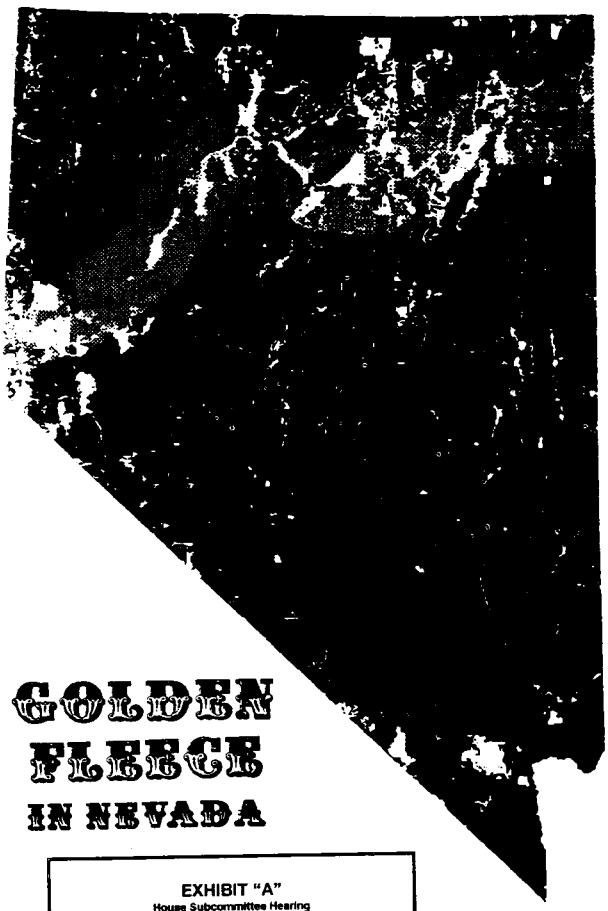
claimed property within a the Sovereign State of Nevada outside those specified lands within the Enclave Clause.

D. In conjunction with item "C" above, the future ***Congressional*** Statutes and Regulations should include clear definition that the Sovereign State shall retain all police powers on all federal property, save the Enclave Property, and that the federal agencies would be subject to the jurisdiction of the state statutes in a like manner as any other property owner within said State. This would place the property rights of the public land user, such as mining, under the protective umbrella of the common law of the State. Laws such as the 1872 Mining Law and Bonding would be implemented by the State which could include certain Congressional requests that are within the Constitutional limits. This type of remedy would be consistent with the limits set forth in the Tenth Amendment to the Constitution for the united states.

Respectfully submitted,

Edward L. Presley,

National Director **CAREE**



GOLDEN FLEECE IN NEVADA

EXHIBIT "A"
House Subcommittee Hearing
Energy & Natural Resources
Elko, Nevada
092297

No.

EXHIBIT "B"
House Subcommittee Hearing
Energy & Natural Resources
Elko, Nevada
892297

In The

Supreme Court of the United States

October Term, 1997

CLIFF AND BERTHA GARDNER,

Petitioners,

vs.

UNITED STATES OF AMERICA,

Respondent.

Petition for Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

PETITION FOR WRIT OF CERTIORARI

The major portion of the legal theories and arguments advanced by Counsel in this document are the product and research of Ed Presley, Wayne C. Bentson and Attorney Larry Becraft which ultimately became the linchpins that started the second Sagebrush Rebellion in the West in 1992. For more information contact:

Ed Presley
81 Licht Parkway, Unit #A
Elko, Nevada 89801
Tel: 702 778 9655

127

i

QUESTIONS PRESENTED

I. Whether the Federal Government owns the unappropriated public land within the State of Nevada.

II. Whether the Federal Government can assert legislative jurisdiction within the boundaries of the State of Nevada based solely on Article IV, Section 3, Clause 2 of the United States Constitution.

ii

LIST OF PARTIES

The names of all parties to the proceedings in the court whose judgment is sought to be reviewed here appear in the caption of the case.

iii

TABLE OF CONTENTS

TABLE OF CITATIONS

Cases Cited:

v

Contents

iv

Contents

vi

Contents

Petitioners, Cliff and Bertha Gardner, respectfully petition for a writ of certiorari to review the judgment of the United States Court of Appeals for the Ninth Circuit entered in this proceeding on February 25, 1997 in order to resolve the Federal Government's claim of ownership of 87% of the land within the State of Nevada, and the Federal Government's claim of jurisdiction based on Article IV, Section 3, Clause 2, of the United States Constitution.

OPINIONS BELOW

The opinion of the Ninth Circuit Court of Appeals that gives rise to this petition is reported at 107 F.3d 1314 (9th Cir. 1997), and is reproduced in the Appendix ("App") filed herewith at A. The opinion of the district court in this case is reported at 903 F. Supp. 1394 (1995) and is reproduced in the Appendix at B. The judgment in the civil case is reproduced in the Appendix at C.

STATEMENT OF JURISDICTION

The Court of Appeals entered its judgment on February 25, 1997. The jurisdiction of this Court is invoked pursuant to 28 U.S.C. § 1254(1).

STATUTE INVOLVED

The Treaty of Guadalupe Hidalgo, 9 Stat. 922;

> To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of Particular States, and the Acceptance of Congress, become the Seat of the Government of the United States, and to exercise like Authority over all Places

> purchased by the Consent of the Legislature of the State in which the Same shall be, for the Erection of Forts, magazines, Arsenals, dockyards, and other needful Buildings. . . .

United States Constitution, Article 1, Section 8, Clause 17;

> Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States; and nothing in this Constitution shall be so construed as to Prejudice and Claims ofthe United States, or of any particular State.

United States Constitution, Article IV, Section 3, Clause 2;

The Northwest Ordinance, of 1787, reprinted in, 1 Stat. 50 (Aug. 7, 1789);

13 Stat. 30 (Mar. 21, 1864);

18 U.S.C. § 17 (Special Maritime and Territorial Jurisdiction ofthe United States Defined);

> Subject to existing rights, all public lands in Nevada and all minerals not previously appropriated are the property of the State of Nevada and subject to its jurisdiction and control.

Nevada Revised Statutes § 321.5973.

STATEMENT OF THE CASE

The United States of America, claims to be the owner of 87% of the land area within the boundaries of the State of Nevada. This claim is based on the Treaty of Guadalupe Hidalgo, 9 Stat. 922. By reason of such claimed ownership, the United States of America claims legislative jurisdiction "without limitation" over such lands pursuant to Article IV Section 3, clause 2 of the United States Constitution.

The Gardners are the owners of the Dewley Creek Ranch which is nearly surrounded by such claimed lands. The Gardners and previous owners of the Dewley Creek Ranch have grazed their cattle on such claimed land continuously since 1872.

In August of 1992, a fire burned over a portion of the Gardners' grazing area. The Gardners' home and buildings narrowly escaped being consumed in this fire. The burned area was immediately reseeded and the Gardners were advised that they could not graze on the area for a period of two years. During April and early May of 1994, a continuing series of rain and snow storms created growing conditions that caused an abundant burst of plant growth in such claimed lands above the Gardners' ranchhouse. The Gardners knew from experience that if such forage was left unharvested it would create an even greater risk of serious fire. The Gardners requested that someone from the Forest Service investigate these conditions and that they be allowed to graze the areas adjacent to their home and outbuildings. No investigation was made, and permission to graze was denied.

Lightning storms are a certainty during the summer months in Northeast Nevada. If the forage remaining from 1993, combined with that generated by the unusually favorable weather conditions of 1994, was not removed it would result in a heavy

fuel load when dry summer months came. To allow this two year accumulation of fuel to surround the Gardner ranch placed the entire operation in imminent danger. Other remedies were impractical. The Gardners placed sufficient head of cattle on the claimed lands to reduce the fuel load to acceptable levels.

The Federal Government commenced the underlying action claiming that:

1. "As sovereign (it) owns the unappropirated land within Elko County, Nevada.

2. Federal law and regulation require a permit prior to placing livestock on such land.

3. Gardners allowed livestock to be on such land without a permit."

The Findings of Fact, Conclusions of Law and Order of the District Court identify the federal law and regulation upon which the judgment is based as follows:

> 1. The federal government retains and manages federal land within the State of Nevada pursuant to its powers under the Constitution, primarily the Property Clause which gives Congress the power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States.

United States Constitution, Article IV, Section 3, Clause 2.

None of the enumerated powers of Congress contained in Article I of the United States Constitution are invoked to support the regulations alleged to require the permit to graze livestock.

Matters of historical fact: Great Britain established sovereignty over the region of North America by discovery and conest, and title to all vacant land was vested in the crown. *Johnson v. M'Intosh*, 21 U.S. (8 Wheat.) 543 (1823). After the American Revolution, title to the public land "passed definitively to the States." *Id.* at 583. As a condition of ratifying the Articles of Confederation the six states without western lands insisted on an agreement that the landed states divest themselves of their western lands. The landed states agreed to surrender their lands (the Northwest Territory) to the Confederation for the purpose of forming new and independent states.

Congress adopted the Northwest Ordinance (1 Stat. 50) to establish territorial governments, to admit new states and to apply the proceeds of sale of the lands to the Revolutionary War debt. The Ordinance also provided that states were to be formed in the Territory and that those future states would be admitted "on an equal footing with the original states in all respects whatever." *Id.* Article V. The power of the Federal Government to hold title to property was created through the adoption of the Enclave Clause, which allows the Federal Government to hold land in "places purchased by the consent of the Legislature of the State" for "the erection of forts, magazines, arsenals, dockyards and other needful buildings." United States Constitution, Article I, Section 8, Clause 17. The thirteen original states continued to own all unappropriated public lands within their borders following ratification of the Constitution in 1789. *See* Paul Gates, *History of Public Land Law Development* (1968). By 1796, Vermont, Kentucky and Tennessee also had been admitted to the Union, each owning all the unappropriated land within their boundaries. *Id.* at 287. Opinions of this Court confirmed that new states took all unappropriated land upon statehood.

> That the original states acquired by the revolution the entire rights of soil, and of

6

sovereignty, it must certain. And if it be true, that Alabama was admitted on an equal footing in regards to the rights of soil with the original states, she can hold the high lands equally with the land covered by navigable water; and so can nine other states equally hold, to the utter destruction of all claim to the lands heretofore indisputably recognized as belonging to the United States, as being a common fund of the Union.

Mayor and Alderman of the City of Mobile v. Eslava, 41 U.S. 234 (1842).

We think a proper examination of this subject will show, that the United States never held any municipal sovereignty, jurisdiction, or right of soil in and to the territory, of which Alabama, or any of the new states were formed except for the temporary purposes, and to execute the trusts created by the acts of the Virginia and Georgia legislatures, and the deeds of cession executed by them to the United States, and the trust created by the treaty with the French republic, of the 30th of April, 1803, ceding Louisiana . . . . Alabama is therefore entitled to the sovereignty and jurisdiction over all the territory within her limits, subject to the common law, to the same extent that Georgia possessed it before she ceded it to the United States. To maintain any other doctrine is to deny that Alabama has been admitted into the union on an equal footing with the original

7

states, the constitution, laws and compacts, to the contrary notwithstanding.

Pollard v. Hagan, 44 U.S. 212 (1845).

By its Act, 13 United States Statutes at large (1864), pp. 30-32, Congress authorized the formation of the Constitution and state government of the State of Nevada. Section two of that Act defined the boundaries of said State and provided that "that the said State of Nevada shall consist of all territory included within the following boundaries, to wit: . . ." The lands within the legal description, set forth thereinafter, were ceded to the State of Nevada by the act of statehood. There was no reservation of ownership, municipal sovereignty, or jurisdiction over such lands by the Federal Government. The people of Nevada have asserted their ownership of the public lands through their legislature.

REASONS FOR GRANTING THE WRIT

This is a case of first impression.

This specific issue (who owns the dry, public uplands) has not been litigated in this Court.

Courts (including this Court) have occasionally assumed federal ownership in cases involving the public lands where such ownership was asserted and not contested, but this Court has never decided the issue. *See* Rotunda & Nowak, 3.6, p. 322, n. 4.

The issues raised are of general importance.

The claimed ownership and assertion of jurisdiction pursuant to Article IV ravishes the West. Resource based interests

8

across the so-called public lands states are becoming increasingly aware of the law presented in this case and the absence of constitutional authority for the federal claim of ownership. The eroding legitimacy of that claim is disquieting to a broad segment of people on both sides of the issue.

In prior years assertions of jurisdiction to enforce federal regulations on the unappropriated lands within the State of Nevada were based on 18 U.S.C. § 7 (Special Maritime and Territorial Jurisdiction of United States Defined). Since this Court's opinion in *Kleppe v. New Mexico*, 426 U.S. 529 (1976) that jurisdiction is claimed to rest on ownership of the public lands. No act of Congress conferring such jurisdiction on the federal courts is relied on. Jurisdiction is claimed under Article IV, Section 3, Clause 2.

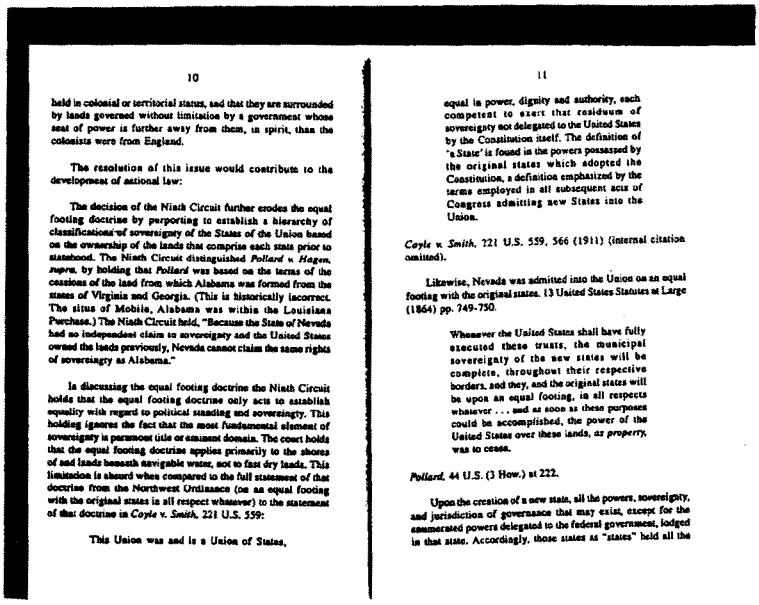
The *Kleppe* opinion has been severely criticized in the scholarly writings. Professor David E. Engdahl, in his treatise *Constitutional Federalism In A Nutshell*, Second Edition, West Publishing Co. (1987) writes of the opinion as follows:

> In 1976, with an opinion that displays darkest ignorance of what had been established for two centuries before, the Supreme Court unanimously (albeit unawares) revolutionized its doctrine under that clause. (Article IV, Sec. 3, Cl. 2) Kleppe v. New Mexico, 426 U. S. 529 (1976) The briefing on behalf of New Mexico was inept, and for its part, the Court conspicuously failed to deal with many . of the relevant cases and demonstrably misunderstood others. (Pg. 228) . . . . Kleppe held that "Congress exercises the powers both of a proprietor and of a legislature over the public

9

domain." . . . . On this view, Congress can make rules for federal property which have no relation whatever to any matter otherwise of legitimate federal concern, and any such rule, being legislative in character, "necessarily overrides conflicting state laws under the Supremacy Clause." (Pg. 229) . . . as to property located within the boundaries of states, that is a profoundly novel proposition which makes a mockery of the basic purpose of enumerated powers doctrine. . . . What Kleppe really means is that over all the vast federal public domain within states, the United States has plenary, general governmental jurisdiction, and is not confined to those enumerated powers which it may exercise elsewhere in the country. It means that as to the east and the middle west, enumerated powers doctrine remains the foundation of constitutional power analysis, but as to the roughly half of the country from the Rocky Mountain states westward it as absolutely no significance at all. (Pg. 231) Kleppe's miscitation of governing authority over Article IV federal property is irreconcilable with the "equal footing" doctrine revitalized in Corvallis just seven months later. (Pg. 231) One who has learned from the study of two centuries of organic constitutional doctrine that sound principles must often ultimately return can assert confidently that Kleppe must eventually be overruled. (Page 232).

The Gardners submit that it means 87% of their state is



10

held in colonial or territorial status, and that they are surrounded by lands governed without limitation by a government whose seat of power is further away from them, in spirit, than the colonists were from England.

The resolution of this issue would contribute to the development of national law:

The decision of the Ninth Circuit further erodes the equal footing doctrine by purporting to establish a hierarchy of classifications of sovereignty of the States of the Union based on the ownership of the lands that comprise each state prior to statehood. The Ninth Circuit distinguished *Pollard v. Hagan, supra*, by holding that *Pollard* was based on the terms of the cessions of the land from which Alabama was formed from the states of Virginia and Georgia. (This is historically incorrect. The situs of Mobile, Alabama was within the Louisiana Purchase.) The Ninth Circuit held, "Because the State of Nevada had no independent claim to sovereignty and the United States owned the lands previously, Nevada cannot claim the same rights of sovereignty as Alabama."

In discussing the equal footing doctrine the Ninth Circuit holds that the equal footing doctrine only acts to establish equality with regard to political standing and sovereignty. This holding ignores the fact that the most fundamental element of sovereignty is paramount title or eminent domain. The court holds that the equal footing doctrine applies primarily to the shores of and lands beneath navigable water, not to fast dry lands. This limitation is absurd when compared to the full statement of that doctrine from the Northwest Ordinance (as an equal footing with the original states in all respect whatsever) to the statement of that doctrine in *Coyle v. Smith*, 221 U.S. 559:

> This Union was and is a Union of States,

11

> equal in power, dignity and authority, each competent to exert that residuum of sovereignty not delegated to the United States by the Constitution itself. The definition of 'a State' is found in the powers possessed by the original states which adopted the Constitution, a definition emphasized by the terms employed in all subsequent acts of Congress admitting new States into the Union.

Coyle v. Smith, 221 U.S. 559, 566 (1911) (internal citation omitted).

Likewise, Nevada was admitted into the Union on an equal footing with the original states. 13 United States Statutes at Large (1864) pp. 749-750.

> Whenever the United States shall have fully executed these trusts, the municipal sovereignty of the new states will be complete, throughout their respective borders, and they, and the original states will be upon an equal footing, in all respects whatever . . . and as soon as these purposes could be accomplished, the power of the United States over these lands, *as property*, was to cease.

Pollard, 44 U.S. (3 How.) at 222.

Upon the creation of a new state, all the powers, sovereignty, and jurisdiction of governance that may exist, except for the enumerated powers delegated to the federal government, lodged in that state. Accordingly, those states as "states" held all the

12

rights of sovereignty and power held by the original thirteen states.

This Court concluded in 1845, that the land passed to the State of Alabama pursuant to the equal footing doctrine:

> Alabama is, therefore, entitled to the sovereignty and jurisdiction over all the territory within her limits, subject to the common law, to the same extent that Georgia possessed it before she ceded it [the land comprising Alabama] to the United States. To maintain any other doctrine, is to deny that Alabama has been admitted into the union on an equal footing with the original states the constitution, laws, and compact, to the contrary notwithstanding.

Pollard, 44 U.S. (3 How.) at 228-9.

This Court further indicated that the United States held the land that became Alabama only as a trustee for the creation of the future state:

> [I]t was the intention of the parties to invest the United States with the eminent domain of the country ceded, both national and municipal, for the purposes of temporary government, and to hold it in trust for the performance of the stipulations and conditions expressed in the deeds of cession and the legislative acts connected with them.

Id. at 222.

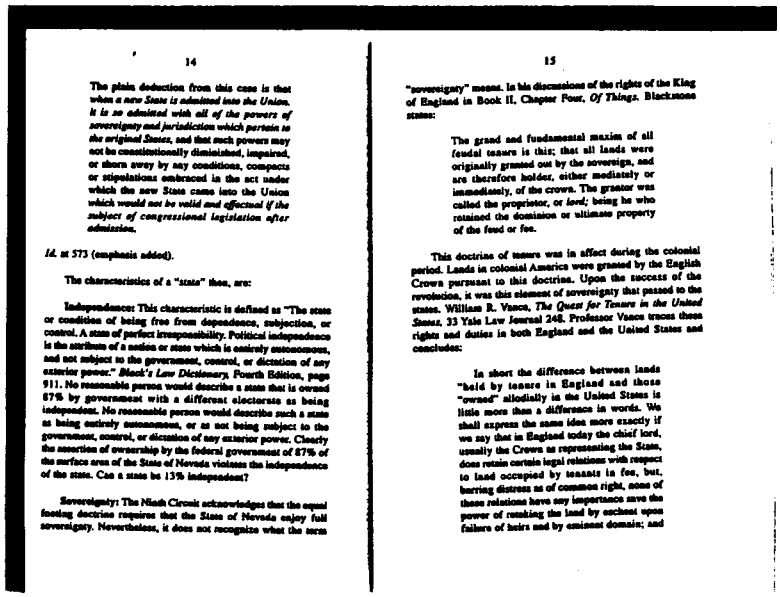
13

The Court decided then, that the United States had no power to convey such lands, but rather, was under a duty to hold them in trust for the future state. *Id.* at 230. Some years later, the Court was called upon to address the matter again, this time when the United States had made a conveyance of land prior to statehood. In *Shively v. Bowlby*, 15 U.S. 1, 14 S. Ct. 548 (1894), the Court determined that land held by the United States in territorial condition is held in trust for the future states. *Id.* at 566. The *Shively* Court concluded, however, that the United States does have the power to dispose of lands in the territories while they are in territorial condition to private parties "for the promotion of convenience in commerce with foreign nations and among the several States, or to carry our other public purposes appropriate to the objects for which the United States holds the Territory." *Id.* at 48. The *Shively* Court also reaffirmed the general principle of equal footing:

> Clearly, congress could exact of the new State the surrender of no attribute inherent in her character as a sovereign, independent State, or indispensable to her equality with her sister states, necessarily implied and guaranteed by the very nature of the Federal compact.

Id. at 560.

The particular issue in dispute in *Pollard* and *Shively* concerned the ownership of land under navigable waters. But the doctrine of equal footing was recognized as much broader, encompassing all the powers, rights, privileges, incidents of sovereignty and conditions applicable to the original thirteen states. The doctrine was further extended in *Coyle v. Smith*, 221 U.S. 559 (1911), where the Court held:



14

> The plain deduction from this case is that *when a new State is admitted into the Union, it is so admitted with all of the powers of sovereignty and jurisdiction which pertain to the original States,* and that such powers may not be constitutionally diminished, impaired, or shorn away by any conditions, compacts or stipulations embraced in the act under which the new State came into the Union *which would not be valid and effectual if the subject of congressional legislation after admission.*

Id. at 573 (emphasis added).

The characteristics of a "*state*" then, are:

Independence: This characteristic is defined as "The state or condition of being free from dependence, subjection, or control. A state of perfect irresponsibility. Political independence is the attribute of a nation or state which is entirely autonomous, and not subject to the government, control, or dictation of any exterior power." *Black's Law Dictionary,* Fourth Edition, page 911. No reasonable person would describe a state that is owned 87% by government with a different electorate as being independent. No reasonable person would describe such a state as being entirely autonomous, or as not being subject to the government, control, or dictation of any exterior power. Clearly the assertion of ownership by the federal government of 87% of the surface area of the State of Nevada violates the independence of the state. Can a state be 13% independent?

Sovereignty: The Ninth Circuit acknowledges that the equal footing doctrine requires that the State of Nevada enjoy full sovereignty. Nevertheless, it does not recognize what the term

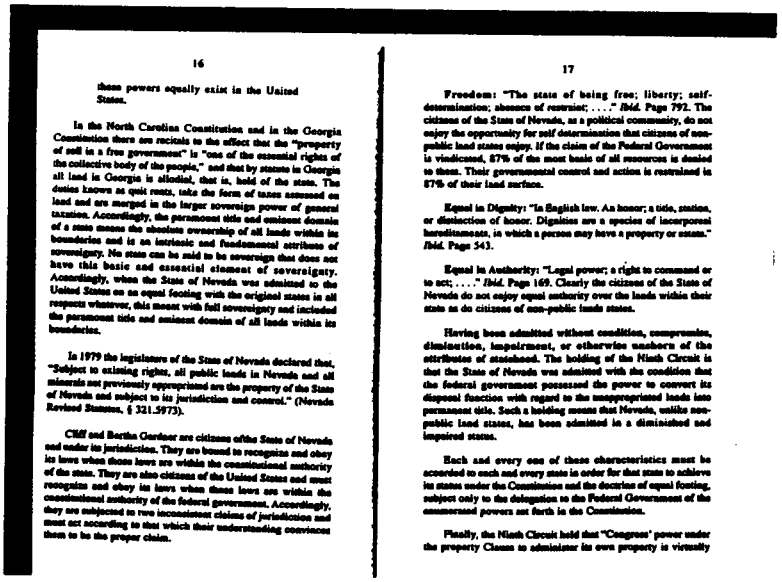
15

"sovereignty" means. In his discussions of the rights of the King of England in Book II, Chapter Four, *Of Things.* Blackstone states:

> The grand and fundamental maxim of all feudal tenure is this; that all lands were originally granted out by the sovereign, and are therefore holden, either mediately or immediately, of the crown. The grantor was called the proprietor, or *lord;* being he who retained the dominion or ultimate property of the feud or fee.

This doctrine of tenure was in affect during the colonial period. Lands in colonial America were granted by the English Crown pursuant to this doctrine. Upon the success of the revolution, it was this element of sovereignty that passed to the states. William R. Vance, *The Quest for Tenure in the United States,* 33 Yale Law Journal 248. Professor Vance traces these rights and duties in both England and the United States and concludes:

> In short the difference between lands "held by tenure in England and those "owned" allodially in the United States is little more than a difference in words. We shall express the same idea more exactly if we say that in England today the chief lord, usually the Crown as representing the State, does retain certain legal relations with respect to land occupied by tenants in fee, but, barring distress as of common right, none of these relations have any importance save the power of reuking the land by escheat upon failure of heirs and by eminent domain; and



16

> these powers equally exist in the United States.

In the North Carolina Constitution and in the Georgia Constitution there are recitals to the effect that the "property of soil in a free government" is "one of the essential rights of the collective body of the people," and that by statute in Georgia all land in Georgia is allodial, that is, held of the state. The duties known as quit rents, take the form of taxes assessed on land and are merged in the larger sovereign power of general taxation. Accordingly, the paramount title and eminent domain of a state means the absolute ownership of all lands within its boundaries and is an intrinsic and fundamental attribute of sovereignty. No state can be said to be sovereign that does not have this basic and essential element of sovereignty. Accordingly, when the State of Nevada was admitted to the United States on an equal footing with the original states in all respects whatever, this meant with full sovereignty and included the paramount title and eminent domain of all lands within its boundaries.

In 1979 the legislature of the State of Nevada declared that, "Subject to existing rights, all public lands in Nevada and all minerals not previously appropriated are the property of the State of Nevada and subject to its jurisdiction and control." (Nevada Revised Statutes, § 321.5973).

Cliff and Bertha Gardner are citizens of the State of Nevada and under its jurisdiction. They are bound to recognize and obey its laws when those laws are within the constitutional authority of the state. They are also citizens of the United States and must recognize and obey its laws when those laws are within the constitutional authority of the federal government. Accordingly, they are subjected to two inconsistent claims of jurisdiction and must act according to that which their understanding convinces them to be the proper claim.

17

Freedom: "The state of being free; liberty; self-determination; absence of restraint; . . . ." *Ibid.* Page 792. The citizens of the State of Nevada, as a political community, do not enjoy the opportunity for self determination that citizens of non-public land states enjoy. If the claim of the Federal Government is vindicated, 87% of the most basic of all resources is denied to them. Their governmental control and action is restrained in 87% of their land surface.

Equal in Dignity: "In English law. An honor; a title, station, or distinction of honor. Dignities are a species of incorporeal hereditaments, in which a person may have a property or estate." *Ibid.* Page 543.

Equal in Authority: "Legal power; a right to command or to act; . . . ." *Ibid.* Page 169. Clearly the citizens of the State of Nevada do not enjoy equal authority over the lands within their state as do citizens of non-public lands states.

Having been admitted without condition, compromise, diminution, impairment, or otherwise unshorn of the attributes of statehood. The holding of the Ninth Circuit is that the State of Nevada was admitted with the condition that the federal government possessed the power to convert its disposal function with regard to the unappropriated lands into permanent title. Such a holding means that Nevada, unlike non-public land states, has been admitted in a diminished and impaired status.

Each and every one of these characteristics must be accorded to each and every state in order for that state to achieve its status under the Constitution and the doctrine of equal footing, subject only to the delegation to the Federal Government of the enumerated powers set forth in the Constitution.

Finally, the Ninth Circuit held that "Congress' power under the property Clause to administer its own property is virtually

unlimited. *Kleppe* 426 U.S. at 539". This expression is accurate when applied to territory outside the boundaries of a state, but its application to 87% of the area of an admitted state has the effect of holding that land to be in territorial status.

Article IV does not provide authority to hold lands, only jurisdiction to govern lands belonging to the United States. It was directed by the founders solely to dealing with the Northwest Territory, lands that had been ceded to the federal government by the states prior to the adoption of the Constitution. The property clause was confined and was intended to be confined to the area of the states a settled by the treaty with Great Britain and have no influence on territory afterwards acquired from a foreign government. *Scott v. Sandford*, 60 U.S. 393 (U.S. Mo. 1856); *Downes v. Bidwell*, 182 U.S. 244 (1901).

The United States acquired additional lands through treaty and conquest. Such lands were not held pursuant to provisions of the Constitution, but were held pursuant to the treaty and war powers and as powers obtained by the United States as an incident of the national sovereignty, not by any provision in the Constitution. *Cross v. Harrison* (1853). Article IV provides legislative jurisdiction over such lands while they are in territorial status. *United States v. Gratiot*, 39 U. S. 526 (1840). The language from the *Gratiot* case relied on by the Ninth Circuit when quoted completely is as follows:

> The term "territory" as here used, is merely descriptive of one kind of property, and is equivalent to the words "lands". And Congress has the same power over it as any other property belonging to the United States; and this power is vested in Congress without limitations, *and has been considered the foundation upon which the territorial governments rest.* (Emphasis supplied).

Such power is the full governance power. Pursuant to such power the Congress is authorized to establish an executive, a legislature, and courts. Indeed, a territorial act is itself a constitution. Such governance power clearly ceases immediately on statehood. *American Insurance v. 356 Bales of Cotton*, 26 U.S. 511 (1828); *Brenner v. Porter*, 50 U.S. 235 (1850).

> The Constitution deals with states, their people and their representatives. The sole object of the territorial clause was to transfer to the new government the Northwest Territory and to give power to apply that territory to the objects dictated by the states. The Constitution does not extend to territories of its own force. Congress has power over territory it does not possess in the States.

Downes v. Bidwell, page 773.

The clear implication of this holding is that the powers authorized to Congress pursuant to Article IV, Section 3, Clause 2, exist only outside the boundaries of states admitted into the union. It is a patent absurdity to assert that such full powers of governance cover 87% of the land surface of a state of the Union and at the same time assert that such state has been admitted to the Union on an equal footing with the original states in every respect whatever. The very argument that such power can exist within a state is itself sufficient refutation of the claim by the Federal Government that the public lands within the State of Nevada are property belonging to the United States.

The judicial power of territorial courts was long ago determined to cease upon admission of a state into the Union. In *Brenner v. Porter*, 50 U.S. 235 (1850) this Court stated:

> We think it clear, therefore, that on the unconditional admission of Florida into the Union as a State, ... the Territorial government was displaced, abrogated, every part of it; and that no power of jurisdiction existed within her limits, except that derived from the State authority, and that by force and operation of the Federal Constitution and laws of Congress; .... The admission of the State into the Union brought the Territory under the full and complete operation of the Federal Constitution, and the judicial power of the Union could be exercised only in conformity to the provisions of that instrument. ... The State authority was destructive of the Territorial; and, in connection with the establishment of the Federal jurisdiction, the organization of the government, State and Federal, under the Constitution of the Union, became complete thoughout her limits. No place was left unoccupied for the Territorial organization.

The implication of the federal claim of ownership and the assertion of Article IV jurisdiction is clearly at odds with this holding. Moreover, this Court's historically consistent recognition of this holding as applied to the judicial power cannot be reconciled with the claim that upon statehood of the State of Nevada the Federal Government retained legislative jurisdiction "without limitation" over 87% of Nevada's territory.

> The Constitution does not protect the sovereignty of States for the benefit of the States or state governments as abstract political entities, or even for the benefit of

> the public officials governing the States. To the contrary, the Constitution divides authority between federal and state governments for the protection of individuals. State sovereignty is not just an end itself: 'Rather, federalism secures to citizens the liberties that derive from the diffusion of sovereign power.'

Coleman v. Thompson, 501 U.S. 1277, 1281, 111 S. Ct. 2546, 2570 (1991).

The Gardners are individuals who need the protection of politically responsive local officials who will protect their liberties. It is a fundamental violation of their rights to claim that they are citizens of the State of Nevada and the United States of America, yet are located in an area wherein agencies of the Federal Government can exercise despotic powers under the claim that the power delegated to them by Congress are "without limitation."

CONCLUSION

For the foregoing reasons, petitioners respectfully request that their Petition for Writ of Certiorari be granted.

Dated the 27th day of May, 1997.

Respectfully submitted,

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September 22, 1997
SUBMITTED FOR THE RECORD

HOUSE SUBCOMMITTEE ON ENERGY & MINERAL RESOURCE
UNITED STATES CONGRESS, HOUSE OF REPRESENTATIVES
HONORABLE BARBARA CUBIN, CHAIRMAN

Madam Chairman, Honorable Members:

Today you have, or will hear, much about the 3809 regulations and the impacts that actions of this nature have upon the economy. Our own business organization, Great Basin Agriculture, Inc. has been a major player in mine site reclamation, with special emphasis on exploration reclamation. Consequently, we are in a unique position to gauge the impacts of regulations such as we are discussing today. Without belaboring the point, it is sufficient for me to say that those impacts are significant, very significant.

Perhaps it might be appropriate to back up a bit and analyze why regulations like 3809 occur to begin with, and what actions of this nature might really represent.

Every single department of the federal government is a bureaucracy. Today, it appears that if the bureaucracy is responsible to anyone, it is only the executive branch of our government, and, if at times we have an executive branch that is less than ethical, it is not difficult to understand how the system can go so awry. Bureaucracies must either grow, or stagnate. Mid level officers of the bureaucracy are often the driving force once they have made the determination that the bureaucracy offers the best security and income for their passage through life. How do these bureaucrats make a bureaucracy grow? Very simple, they must either increase the mass their agency regulates, or increase the complexity with which it regulates. Either action, if successful, increases job security, promotion and all the other benefits associated with bureaucratic growth. That's how regulations like 3809 come into being.

But 3809 is only the tip of the iceberg. Growth of the bureaucracy is difficult enough for those of us that *produce wealth* to contend with. But when that bureaucracy becomes unethical, it presents a set of problems that, at best, are almost impossible to deal with and at worst could well lead to total anarchy.

Places like Waco and Ruby Ridge may seem mysterious and far away to most Nevadans; however the type of events that led to those disasters are perhaps much closer than any of us might care to admit. When the bureaucracy threatens our livelihoods, our personal property rights, the very freedoms we all have been guaranteed by our constitution, then I would suggest to you that Waco and Ruby Ridge are not that far away at all.

It seems to be a given that bureaucracies must grow, only you in Congress can ultimately control that with fiscal restraint, a fact which despite all of the rhetoric, you have failed to do. But what about the ethics of the bureaucracy? Ultimately, only the executive branch can control that. But one would have to admit the example set in recent years is indeed questionable.

Let's briefly examine the ethics of the agencies that we here in Nevada most frequently deal with - the land management agencies. I'll only briefly mention a few events. Most are central to ongoing litigations. The cutting of fences or opening of gates so that "legitimate" reasons can be found to trespass livestock permittees; the mechanical covering of springs with dirt to disallow further use of the water from those springs for irrigation; the movement or hiding of historical survey markers to confuse the issue on location of irrigation ditches; the hiding, or perhaps even destruction of historical documents absolutely necessary for settling of disputes; the physical changing of monitoring data to make livestock grazing look very damaging; the hiring of so called "experts" to present distorted historical and factual data to support an agency position; the elimination of years and years of outstanding research because it no longer supports present philosophy; and yes, and even the very threat of death if one dares to oppose a government action, including the taking of personal property. And 3809? Just compound the bureaucratic red tape, until complying becomes physically and financially impossible. Sounds like some of our environmental friends doing their "monkey wrenching" doesn't it? No, it's just our government at work.

Be that as it may, let's look at what's really going on. The agencies that control the public domain want full control, nothing less, and that includes water. Today, I am aware of no less than 6 litigations between private individuals, political bodies, water districts and others and the United States concerning water rights here in Nevada. The United States Forest Service leads this parade, but close behind, observing the results, is the Department of Interior including both the BLM and the BIA. Control of water in the West is control of all that occurs on the landscape including mining.

I'll call your attention to two of these litigations, and I am providing you with copies of both of these suits. The first, involving the Truckee Carson Irrigation District (CV-N-95-7587-HDM) requests repayment of 1,057,000 acre feet of water, including interest for water allegedly stolen from the Pyramid Indian Reservation between 1973 and 1988. I'll not go into the details of the ramifications that loss of this suit would bring upon the water users of the Truckee Carson Irrigation District, as well as the towns of Fallon and Fernley; but it is sufficient to say that the results of loosing that suit are beyond my ability to calculate.

Of more concern, however, is the case known as the Walker River case (C-125-ECR Subfile C-125-B) in which the United States is laying claim to all waters of the Walker River watershed, from the crest of the Sierra Nevada mountains in California to and around Walker Lake in Nevada. Their claim includes all surface water, as well as all underground water within the entire basin. Theoretically, if won, these waters would be transferred to the Walker River Indian Reservation for beneficial use. However, what seems to go

unnoticed is that much of the land being claimed by the government for the reservation includes mountains totally incapable of being irrigated. Further the reservation does not want the water, although again, that doesn't seem to be very important in the eyes of the government.

The distasteful part of the Walker River case is the simple fact that every water user above the reservation will loose their water if the people loose this case. That includes at least 1,200 active claims, resulting in certainly what must be the largest single takings case in the history of this country. Water, to these people, represents everything that they have worked and died for, often for 3, 4 and even 5 generations. And, I guess it goes without saying, when the government owns all of the water in the West, mine exploration, and the eventual result of that exploration, economic mining, will indeed become a thing of the past.

In every one of these litigations the Department of Justice brings in as much legal expertise as deemed necessary to win. What conceivable successful defense do the defendants, the common citizens of Nevada, have? To date these cases have left a trail of bankrupt and broken people.

During my 25 years as a professor of agriculture and environmental sciences at the University of Nevada, Reno, as well as during the last 13 years as president of Great Basin Agriculture, Inc., I have observed an ever increasing impact brought about by the heavy handedness of governmental bureaucracy. Unfortunately, this trend has accelerated in the very recent years. Today, we have almost lost our range livestock industry. Mining can only be continued by active exploration. However, exploration is going to foreign lands where they are allowed to, in fact, explore. During recent years, I have attempted to educate the public, our county and state governments and even congress about the perils of bureaucratic regulation. I have conducted economic studies of these impacts, and am continuing to do so. Some of what you will hear today comes directly, or indirectly from those efforts. You must, however, never forget that all wealth ultimately only comes from the land and the associated waters. When we regulate the ability to create wealth out of existence, it will be but a few short years before our national economy is in shambles. Add to that the ever increasing takings of private property rights, and anarchy will only follow.

Can Waco happen in Nevada? Continued the present path, it is just a matter of time. You can only push people so far, and I truly believe that point is very close at hand. Do not forget the principles that this country was founded on. That feeling is alive and well - 225 years later. That lesson should tell for ever after that *when you have taken all else, the ultimate sacrificing of one's life for what he believes in seems a rather insignificant price to pay.*

Respectfully submitted,

Anthony L. Lesperance, Ph.D.
GREAT BASIN AGRICULTURE, INC.

ATTACHMENTS

Please copy for commissioner
Thanks
Tony

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LANCE S. WILSON
CLERK
BY _____ DEPUTY

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SHIRLEY SMITH
Assistant United States Attorney
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Attorneys for Plaintiff.

THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF NEVADA

UNITED STATES OF AMERICA, Plaintiff, v. BOARD OF DIRECTORS, TRUCKEE-CARSON IRRIGATION DISTRICT, INDIVIDUALLY, AND as Representatives of the Class of all Water Users in the Newlands Reclamation Project; and the TRUCKEE-CARSON IRRIGATION DISTRICT, Defendants.	CV-N-95-757-HDM **NOTICE OF CLASS CERTIFICATION TO CLASS MEMBERS**

This Notice is to inform you that, as a water rights owner in the Newlands Reclamation Project ("Project"), you are a member of a Defendant class in a class action lawsuit filed by the United States ("Plaintiff") for repayment of at least 1,057,000 acre-feet of water diverted from the Truckee River to the Project and the water rights

(149)

holders between 1973 and 1988 allegedly in violation of the 1973 Operating Criteria and Procedures ("OCAP") promulgated by the Secretary of the Interior of the United States. The Defendant class of which you are a member consists of all water rights owners in the Project. The individual members of the Board of Directors of the Truckee-Carson Irrigation District ("TCID") will serve as representatives of the Defendant class. The purpose of this Notice is to advise you of your rights and obligations in relation to this lawsuit. While the Court has not yet ruled on the merits of the water repayment claim, it is possible that when this Court considers the merits of the Plaintiff's claim it will issue orders legally binding you and all other Defendant class members. Thus, it is important that you read and carefully consider the matters below. This Notice will inform you, first, of the court proceedings prior to this date, and, second, of your options at this point. If you are unsure of what course to follow or if you have questions, you may want to contact your own attorney, the attorneys named for the Defendants of which you are one (see paragraph 3 below), or the attorneys for the United States (see paragraph 6 below). Please note carefully the time limit for your action and the consequences if you decide to take no action.

On December 8, 1995, the United States filed this class action lawsuit against the Defendants TCID as well as the Board of Directors of TCID individually and as representatives of the class of all water rights holders in the Newlands Project. The United States seeks repayment of at least 1,057,000 acre-feet of water, plus interest in the form of water, allegedly illegally diverted

50

from the Truckee River in violation of the 1973 OCAP promulgated by the Secretary of the Interior of the United States. The United States also contends in its Complaint that the Board of Directors should act as representatives for the Defendant class of approximately 4,000 water rights holders in the Project, of which you are one.

After considering the evidence presented by all parties and the briefs submitted on the propriety of the certifying of a Defendant class in this case, this Court ruled on June 5, 1997, that:

> the prerequisites of Federal Rule of Civil Procedure 23(a) are satisfied and, in addition, that this action is maintainable under Federal Rule of Civil Procedure 23(b)(1)(A) because prosecution of separate actions against the individual members of the Defendant class would create a risk of inconsistent or varying adjudications with respect to individual members of the Defendant class which would establish incompatible standards of conduct for the Plaintiff. Hence, this matter should be and hereby is certified as a class action under Federal Rule of Civil Procedure 23(b)(1)(A) and the named Defendants are hereby ordered to act as representatives of the Defendant class.

This Court further ordered that this Notice, after approval of this Court, be distributed by the Plaintiff, at its expense, to all members of the Defendant class.

THEREFORE, YOU ARE HEREBY NOTIFIED:

1. By Order of this Court, dated July 1, 1997, you were found to be a member of a Defendant class in this lawsuit, which Defendant class is represented by the Board of Directors of TCID, which has its principal place of business in Fallon, Nevada. The United States claims that at least 1,057,000 acre-feet of water

were illegally diverted from the Truckee River to the Newlands Project between 1973 and 1988 for use by water rights holders in excess and in violation of the limits set by the 1973 OCAP regulations.

2. As a member of the Defendant class you will be legally bound by any future orders of this Court relative to the water repayment effort. This means that, depending upon this Court's decision concerning the repayment claim, you may have to participate in the repayment to the United States of an amount of water equal to that found to have been taken in violation of the 1973 OCAP limits between 1973 and 1988. If so, a plan for the repayment of the water will be drawn up subject to Court approval. If this plan is approved by the Court, you will have to comply with it. This also means that you could be subjected to contempt proceedings for failure to comply with this Court's orders.

3. Your interests are currently represented by Defendants on the Board of Directors of TCID, and TCID itself, and their attorneys, Michael J. Van Zandt and Craig A. Pridgen of the law firm of McQuaid, Metzler, McCormick & Van Zandt, located at One Maritime Plaza, 23rd Floor, San Francisco, California 94111-3577. Their phone number is (415) 392-7077.

4. If you are satisfied that your interests will be adequately represented by the Board of Directors of TCID and their attorneys, you do not have to take any action at the present time. You will be advised of any final orders of this Court by a subsequent Notice.

5. If you are not satisfied that your interests will be adequately represented, you have a right to request leave of court

to intervene as a Defendant in this action and present any defenses you might have. In the event you desire to intervene, it may be desirable to contact your attorney. Any such request to intervene must be filed with the Clerk of this Court within twenty (20) days of receipt of this Notice. The Clerk's name and address is as follows: Lance S. Wilson, Office of the Clerk, United States District Court for the District of Nevada, Bruce R. Thompson United States Courthouse and Federal Building, 400 South Virginia Street, Suite 301, Reno, Nevada 89501. His phone number is (702) 686-5800.

6. In the event you have any questions concerning this Notice, you can contact the attorneys for TCID and the Board of Directors of TCID at the address and telephone number listed in paragraph 3 above. You can also contact counsel for the United States, Shirley Smith, Assistant United States Attorney, District of Nevada, 100 W. Liberty, Suite 600, Reno, Nevada 89501. Her phone number is (702) 784-5438. Or, contact Plaintiff's attorney, Fred R. Disheroon, Special Litigation Counsel, United States Department of Justice, Environment and Natural Resources Division, P.O. Box 7397, Washington, D.C. 20044-7397. His telephone number is (202) 616-9649.

7. As indicated above, this Notice does not require any action on your part at the present time unless you wish to intervene; however, please consider it carefully because you will be legally bound by future orders of this Court.

Dated: July 3, 1997

LANCE S. WILSON
Clerk, U.S. District Court
District of Nevada

By: Louise Stewart
Deputy Clerk

(15)

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Environment and Natural Resources Division

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Telephone: 202-616-9643

Attorneys for the United States of America

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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF NEVADA

UNITED STATES OF AMERICA, Plaintiff, WALKER RIVER PAIUTE TRIBE, Plaintiff-Intervenor, vs. WALKER RIVER IRRIGATION DISTRICT, a corporation, et al., Defendants.	In Equity C-125-ECR Subfile C-125-B
WALKER RIVER PAIUTE TRIBE, Counterclaimant, UNITED STATES OF AMERICA, Counterclaimant,	

(194

vs.

WALKER RIVER IRRIGATION DISTRICT,

Counterdefendant,

STATE OF NEVADA,

Intervenor-Counterdefendant,

Abrott, Arthur H.; Abrott, Mary L.; Adams, Robert T.; Adams, Vivian; Aho, James A.; Aho, Judith H.; Aiazzi, Denise N.; Aiazzi, Estelle M.; Aiazzi, James K. Trust; Aiazzi, Pete A.; Aiazza Ranches; Aiazzi, Reno George Trust; Aiazzi, Stephen E.; Aiazzi, Wilbert Angelo; Albany Family Trust; Albright, Cheryle; Albright, Elaine L.; Albright, Samuel D.; Aldridge, C. Fred; Alexander Dawson, Inc. (a corporation); Alpers Ranch Co., Inc. (a corporation); Andrews, Edward A. Trust; Andrews Trust; Annett, Norman T. and Alpha D.; Annett Ranch, A Limited Partnership; Annett's Mono Village, Inc. (a corporation); Antelope Union Elementary School; Antelope Elementary School; Antelope Valley Mutual Water; Armstrong, J. T and R; Armstrong, Rita; Armstrong, Thomas; Arrache, Juan E. and Carmel M.; Arrighi, Deborah F.; Arrighi, Mark N.; Arsenio Family Trust, Frank Arsenio; Arsenio Family Trust, Tillie Arsenio; Artesani Family Trust, E.J. Artesani; Artesani Family Trust, M.E.Artesani; Ash, Frank G.; Ash, Janice F.; Ash, Janice F.; Ash, Kimberly L.; Aylor, Elmo E.; Aylor, Margot A.; Baker, Calvin; Baker, Cherie; Baker, Christina R.; Baker, Lawrence E.; Bacon, Milton E.; Baker, Steven; Baker, Virginia; Bacon Trust, Milton E. Bacon, Jr. Trustee; Balaam, Donald A.; Balaam, Olga M.; Banta, Mary Louise; Banta, Ronald T.; Banta, Ronald T.; Baptiste, Lorraine F.; Baptiste, Joe S.; Bar Keystone Ranch/a General Partnership; Barber, Harriet H.; Barron Hilton c/o- Flying M Cattle Co.; Barrett, Charles R.; Barrett, Michelle; Barrett Family Trust; Batchelder, Fred; Batchelder, Josephine; Bath, Barbara C.; Bath, Ronald J.; Batjer Family Trust, Cameron M. Batjer, Trustee; Bayer, Albert; Beagle, Billy Roy; Beagle, Thelma G.; Bean, Ethel, Trustee; Bean, Kenneth, Trustee; Beckhan, John W.; Beckman, Carolee B.; Bednark, James D.; Bednark, Terri; Bell, Brian William; Bemiss-Jason Corporation (a corporation); Bennett, Janet and Helen M.; Bennett, W and L Trust- Lauralee Bennett; Bennett, W and L Trust- Wayne E. Bennett; Benninger, Charles; Bently, Donald E.; Bergevin, Louis W.; Bergin, Leo P.; Bergin, Leo and Yvonne Family Trust; Bergstrom, Cynthia K.; Berinati, Donald J.; Berrington, Gary M.; Berrington, Gary M. and Susan P.; Berrington, Nadine; Berrington, Steven D.; Berrington, Susan P.; Biggs, David; Biggs, Marilyn; Bitler, Ken and Peggy Family Trust; Bitler, Kenneth P.; Bitler, Peggy; Bitler, Peggy L.; Blackham Trust, Craig Blackham, Trustee; Blackham Trust, Nancy Blackham, Trustee; Blades, Anna; Blades, Jerry L.; Blakely Family Living Trust, Beverly Blakely; Blakely Family Living Trust, Robert Blakely; Blasco Family Ltd. Partnership; Bliss, Agnes C., Trustee, U.D.T.; Bliss, Maurice A., Trustee, U.D.T.;

Bobrick, Ruth E.; Bobrick, Thomas; Bobzien, Dolores J./Elizabeth) Richardson; Bohlin, Vera J.; Bohlin, William B.; Bol, Julie A.;) Bolt, Billy F.; Bolt, Gary D.; Bolt, Norton; Boothe, Karen Ann;) Borsini Ranch Inc. (a corporation); Bowden, Barbara M.; Bowden,) Melvin H.; Bozsik, Albert S.; Bozsik, Albert S. Jr.; Bozsik, Olivia) V.; Bradleyville; Brandfass, B and B; Brethauer, Clarence D.;) Brethauer, Janet; Bromley Properties; Bronneke, Samuel P.;) Brown, Betty J.; Beverely, Brown E.; Brown, Beverly E.; Brown,) Darrol J.; Brown, Joel W.; Brown, Lois; Brown, Marilyn M.;) Brown, Ross; Brown, Shelby Dane; Bunkowski, Terry L.; Bunn,) Babe Lona; Burchett, Freeman C.; Burchett, Joseph Lee; Burchett,) Lucy D.; Burnett, Kenneth R.; Burnett, Sharon L.; Buster, David) C.; Buster, Gayle L.; Butcher, Tammie J.; Butcher, Terry E.;) Cabral, Joseph P.; Cabral, Joseph P. Sr.; Cabral, Norma J.; Calif) Dept of Fish and Game; Calif Dept of Parks & Recreation;) Calif. State Water Res. Control Board, Div. of Water Rights;) Callaham, Sandra J., Trust; Calneva Cattle Company; Canepa,) William and Eva Family Trust; Cantrall, Nancy; Cantrall, Nolan;) Capurro, Janice E., Trust; Capurro, Robert Steve and Janice Trust;) Capurro, Rose and Janice Trust; Cardinal, Michael C.; Cardinal,) Sally L.; Cardinelli, Ernest; Cardinelli, Kathleen; Carlson, Bill;) Carlson, Bill E.; Carlson, Deirdre; Carlson, Harry T.; Carlson,) Sharon; Carlson, Sharon M.; Carlson Family Trust; Carter, Agnete) S.; Carter, Philip V.; Cary, Edith F.; Cary, Edith F.; Cary,) William B.; Casey, Michael A.; Casey, Michael A. and Claudia C.;) Castello, Colleen V.; CEAS Co.; Cefalu, John N. and Judith A.;) Chase, Helen S.; Chase, Russell E.; Chichester, Dwayne;) Chichester Ranches, Inc. (a corporation); Chico, James V. and) Stanley B.; Chico, James V. Jr.; Chico, Sydney B.; Chisum) Incorporated (a corporation); Chounet, Jill C.; Chounet, William E.;) Christiansen, Jeffrey L.; Christiansen, Jill L.; Cid, Elaine M.; Cid,) James D.; Circle Bar-N Ranch; City of L.A., CA, Dept. of Water) and Power; City of Yerington, NV; Ciulei, Elena; Clark, Alex A.;) Clark, Bruce; Clark, Bruce A.; Clark, Bruce A.; Clark, Patricia;) Clark, Patricia D.; Clark, Patricia D.; Clark, Rita V.; Clark Trust;) Clements Family Trust; Cliff, Norman E. and Donald A.;) Compston, Dennis L.; Compston, Leah R.; Compston Family Trust) - Harvey Hunewill; Compston Family Trust - James Compston, Jr.;) Compston Family Trust - Marion Compston; Compston Family) Trust - Phyllis Hunewill; Compston Trust - Lois C. Compston;) Compston Trust - Robert J. Compston; Conlon, Ralph; Conlon,) Rosemary Lee; Connolly, Thomas P.; Connolly, Volina; Cook,) Gary; Cook, Margaret; Cooper, Edna G.; Costa, James P.; Costa) Norma A.; County of Lyon, NV; Coutts, L.; Coutts, T.; Coutts, Troy) Crandal, Susan Jill; Cremetti, William G. Trust - William Cremetti;) Croker, Laurence, Trustee; Croker, Ruth, Trustee; Crosby, Fred, T) and R; Crosby, Judy; Crystal, Dennis C.; Crystal, Mary I.; Curry,) Robert; Curry, Robert R.; Cutler, Diane; Cutler, Donald G. and) Dee Anne; Cutler, Donald G. and Diane A.; Dane, Frank B.; Dane,) Susan; David H. Fulstone Company; Davis, Helen E.; Davis,) James B.; Day, Caroline S.; Day, Charles E.; Day, Julie; Day,) Julie A.; Day, Kelli; Day, Lucile; Day, Robert H.; Day, Robert H.) Jr.; Day, Robert Jr.; DeChambeau, Susannah W.; Del Porto,) Cherryl; Del Porto, Daniel E.; Delany, Barry F.; Delaney,) Deborah; DeLuca, Kenneth T.; Desert Pearl Farms; Dini, David J.;)

(196)

Dini, Tosca M.; Dinneen, Daniel E. and Doreen E.; Dinsmore) Family Trust - Delphine Dinsmore; Dinsmore Family Trust - Robert) Dinsmore; Domenici, Aloha; Domenici, Gladys; Domenici,) Joseph; Domenici, Peter J.; Double JA Land & Livestock;) Dressler, Fred, H., Trust; Dressler, Milton; Dreyer, Joan; Dreyer,) Roland; Dunn, Daniel D.; Dunn, Sandy L.; Durousseau, Barbara F.;) Dye Family Trust - M.V. Dye, Trustee; Dye Family Trust -) Kathleen Dye, Trustee; Eaton, Richard A.; Eaton, Tanya J.;) Edwards, Shelly; Eickmeyer Family Trust; Eisenhouer, K.; Eitel,) Loretta Beth;Elvira Maionchi Lee Ivy Ranches; ELW Ranches, Inc.) (a corporation); Elwell, Dona M.; Elwell, William J.; Emery,) Brett; Estrada, Frances; Estrada, Salvador; Evans, Anne B.;) Everett, Harry; Executive Consultants, Inc. (a corporation); F.I.M.) Corporation (a corporation); F.M. Fulstone, Inc. (a corporation) Facer, Mabel; Facer, R.L.; Faretto, Cathleen - The Anderson Family) 1992 Trust; Faretto, Michael A. - The Anderson Family 1992 Trust;) Faria, Edwin F. and Marty L.; Farias, Carmen; Farias, Ellis N.;) Farias, Ellis Norman; Farias, Harold W.; Farias, Ruth; Farias) Wheel Ranch, Inc. (a corporation); Farmer, Jack B.; Farmer, Letha) S.; Fawcett, Lawrence Edward; Fawcett, Lawrence W.; Fenili,) Peter; Fenili, Veronica J.; Fickes, Gerald and Peggy L.; Field, John) Julius; Field, Mary L.; Finch, Harry L.; Fitz, George O.; Fletcher,) Teri L.; Fletcher, Marie L.; Fletcher, Michael S.; Fletcher, Ruth L.;) Fletcher, Wesley L.; Flying A, Limited Partnership; Flying M.) Ranch - Barbara J. Mitchell and Bryce G. Mitchell; Forrester,) Pamela; Forrester, Wendell B.; Foss, Thomas A.; Four G) Corporation (a corporation); Fox, Leonard A Trust - Elizabeth J.) Leone, Trustee; Fox Mutual Ditch Company; Frade Ranches, Inc.(a) corporation); Franklin, Carl and D. Camille; Franklin, Shawn C. and) Vonda Kay; Fraser, Betty; Fraser, George; Frazier, George R.;) Frazier, Helen; Freitas, Barbara L.; Freitas, Elizabeth; Freitas,) Maurice H.; Friedhoff, George W.; Friedhoff, Helen; Fuchs, Hans;) Fuchs, Margaret; Fuller, Carol, Trustee; Fuller, Raymond, E. -) Trustee; Fulstone, I.R.; Fulstone, Vivian D. Trust - Glenora F.) Wright; Fulstone, Vivian D. Trust - James H. Fulstone; G Lazy B) Partnership; Gable, Don R. Trust; Gable, M.P.; Gable, O.D.;) Gable Family Trust; Garcia, Mariana; Garms, Donna J.; Garms,) Gary Jay; Garms, Toni J.; Garms Trust; Garmsland Limited; Gary,) William B. and Edith F.; Gattuso, Joseph A. and Kim I.; Gelles,) Eleanor, Lynn, and Paul; Gellers, Paul and Eleanor; Gemmell,) Bruce H.; Gerbig, Arden; Gerbig, Evilo; Gerbig, J.; Ghio, Diana) D.; Ghio, Mario J.; Giles, William C.; Gill, Alice P.; Gill, Joseph) P.; Gingras, Edward J.; Gingras, Opal Edith; Giodo, Joseph A.;) Giodo, Virginia M.; Giorgi, Baldo, Trustee; Giorgi, Daniel E.;) Giorgi, Donald; Giorgi, Evo, Trusteee; Giorgi, F.A., Trustee;) Giorgi, Florence A. Family Trust; Giorgi, J., Trustee; Giorgi, Linda) Hunewill; Giorgi, Virginia M. Trustee; Giorgi Brothers, Inc.;) Giron, Vince; Glasner, Grover F.; Glass, Daniel G.; Glass, Patricia) J.; Gleason, James G.; Gleason, Maria D.; Gleason, Marla D.;) Glock, Audrey; Glock, Ernest; Gober, Alice M.; Gober, Edward) E.; Godde, Forrest G.; Goes, Frank; Goes, Sherryl; Goffinet,) Cheryl L.; Goffinet, Lonnie K.; Goodman, Emma M.; Goree, Jeff) R.; Goree, Liborn; Goree, Margaret; Goree, Sandra J.; Gorham,) John A.; Gorham, Rosamond A.; Goss, Ronald W. and Sandra A.;) Granata, Helen, Trustee; Gray, Leslie B.; Gray, Mary; Green)

(157)

Valley Turf Farm, Inc. (a corporation); Greenfield Development/Limited Liability Company; Greenwood Mutual Ditch Co.; Groso, Angelo; Groso, Blanca; Groso, Charles; Groso, Ernest; Groso, Maxine J.; Grulli, Ace; Grulli, Felicia; Grulli, Marvin; Guild, Rolene V.; Guy, Willis H.; Hadley, Ernest D.; Hadley, Katherine; Hall, Blanche F., Trustee; Hall, Ralph; Hall, Ruth; Hall, Walter L.; Ham, Dana C.; Ham, Franklin C.; Hamer Trust, John Hamer, Trustee; Hamer Trust, John Murray; Hamer Trust, Maryanna Hamer, Trustee; Hamilton, Alice J.; Hamilton, Richard R.; Hamlett Group Limited Parners; Hammond, Judy; Hanifan, Janet; Philip, Hanifan; Hanifan, Philip; Hanks, Lawrence C.; Hanson, Beverly; Hanson, F.W. and Leona; Hanson, Gary M.; Hara, Marjorie E.; Hargus, John R., Adah M. Blinn Trust; Harmon, Patricia; Harris, Carol C.; Harris, John R.; Harris Trust; Harrison, B.A.; Harrison, Linda; Hartline, Deborah; Hartman, Charles J. and Mary A.; Hathaway, Myrtle K.; Hawkins, Benjamin F.; Hawkins, Benjamin F. and Juanita; Hawkins, Kenneth R.; Hawkins, Margaret; Hawkins, Terry; Hayes, Jonathan C. and Deborah A.; Hazard, Michael J.; Hazard, Michael J.; Heimerman Family Trust, John A Heimerman, Trustee; Heimerman Family Trust, Leona T. Heimerman, Trustee; Helmuth, George and Pamela; Henker, Mark; Henker, Nancy; Henwood Associates Inc. (a corporation); Hernandez, Isidro V. and Audelia; Higginbotham, Carol; Higginbotham, John M.; Hill, Lynn M.; Hills, David W. and Carol A.; Hilton, Marilyn J. - Flying M Ranch; Hilton, Marilyn June - Flying M Cattle Co.; Hilton Family Trust; Holbrook, C., Trustee; Holbrook, Constance; Holbrook, Richard H. Jr.; Holbrook, Richard, Trustee; Holbrook, Vera L.; Holmes, Frank; Howard, Charles S.; Howard, Charles S. III; Howard, Loretta; Huckins Family Trust, Dorothy Huckins; Huckins Family Trust, Harry Huckins; Huggans, Jan; Huggans, Jan; Hughes, Eva; Hughes, George; Hunewill, Gregory A.; Hunewill, Harvey; Hunewill, Harvey E. Trustee; Hunewill, L.; Hunewill, Linda Giorgo; Hunewill, L.D.S. Church; Hunewill, Phyllis, Trustee; Hunewill Enterprises/Limited Liability Company; Hunewill Land & Livestock Co.; Hyne, Frances L.; Hyne, Marshall; Ireland, Mariann; Ireland, Ward W.; Ithurburu, John P.; Ithurburu, Marilyn; Jacobsen, Finn; Jacobsen, Judith; Jacobsen, Michelle; Jacobsen, William; Jakobson, Bert A.; James A. Mabe Jamesgate Ranch; Jason Corporation; Jenkins, Joyce; Jenkins, Larry D.; Jensen, Jack E.; Jesch, Sylvia - Wheat Trustee, Margaret M. Wheat Trust; Jesch Family Trust, Sylvia J. Jesch; Jesch Family Trust, Raymond Jesch; Johnson, Leona E.; Johnson, Wallace D.; Johnston, Charles; Johnston, Pearl D.; Jones, Georgianna; Jones, Frederick R.; Jones, Gilbert E.; Jones, Louise, Trustee; Jones, Louise A.; Jones, Norma J.; Jones, Thomas, Trustee; Jones, Thomas F.; Joseph W. Heflin, M.D., Ltd.; Joseph W. Heflin, Inc.; Judd, D. Leon; Judd, Lucy Charlene; Julian, Darlene A.; Julian, Jay F.; Junction Ranch; Karadanis; Keeley, Edith L.; Keeley, John H.; Keeley, Marvin C.; Kelly, Dr. Donald - Health International; Kennedy, Cleo N.; Kennedy, Dale S.; Kennon, Vergie, A.; King Family Trust; Kyler, LaJune F.; Kyler, Melwood; L.T.R. Enterprises; Labranch, Joseph H. and Bobbie L.; Landolt, Beverly J. Trust; Landolt, David; Landolt, Joseph; Landolt, Joseph G Trust; Landolt, Tamela; Lands of Sierra, Inc. (a corporation); Lapham, Willis H. and Joanna M.; Larson, Roger; Lazy Two-T

(158)

Ranch; Lee, Carole J. (Rogers); Lee, Harry A., Trustee; Lee, Thomas William; Lee Family Trust; Lee Ivey Ranch, Inc. (a corporation); Lehmer, Debra S.; Lehmer, Steven M.; Leinassar, Alan S.; Leinassar, M.F.; Leinassar, Marianne; Lekumberry, Robert J. and Suzanne; Ligtenberg, Joanne; Ligtenberg, Roger F.; Linscott, George; Linsenmier, Jack L.; Linsenmier, Wilma H.; Little, David; Little, Sherry; Livingston, George E.; Livingston, Lori A.; Lloyd, Morna M.; Lloyd, Thomas E.; Loll, Margaret M.; Loll, Raymond F.; Lommori, Bessie J. Trust; Lommori, Dante J.; Lommori, Eleanor B.; Lommori, Joe; Lommori, Joseph J. Trust; Lommori, Joseph and Bessie Trust - B.J. Lommori, Trustee; Lommori, Joseph and Bessie Trust - J.J. Lommori, Trustee; Lommori, Julio and Delia T. Trust; Lommori Family Trust, Clance Lommori, Trustee; Lommori FamilyTrust, Dante Lommori, Trustee; Lommori Family Trust, Mario Lommori, Trustee; Lompa Family Trust, Duana Lompa, Trustee; Lompa Family Trust, Samuel Lompa, Trustee; Lorenz, Ellie T.; Lorenz, Joe E.; Ludel, Donna; Ludel, Samuel M.; Lukemberry, Robert J.; Lund, Hans N.; Lund, Marie N.) Lyon County Cemetery # 2 Hillcrest Cemetary; Lyon County Fair Grounds, Inc. (a corporation); Lyon County Trust; Lyon Ranch Operations, Inc. (a corporation); Mabe, Sandra R. - Jamesgate Ranch; MacKenzie, Andrew; Mackey, Russell; Mackey, Theresa; Madden, Gerald; Madden, Lois; Madsen, Patricia G.; Madsen, Vernon Lee; Maine, D.C.; Maine, Gayle; Manha, Josephine, Family Trust; Mann, Allen J. Jr.; Mann, Luetta A.; Mann, Melinda L.; Maple, G.D. Jr.; Maple, Gurney D. Trustee; Maple, Ura L., Trustee; Marriott, Carlis N.; Marriott, Jack D.; Marriot, Jackie Dale; Marriott, Lonnie E.; Marriott, Sandra; Marriott, Sandra Jo; Marriott, Sandra K.; Masini, Carrol G.; Masini, Lawrence C. and Alma Trust; Masini, Maria O.; Masini, Patricia; Masini Investments; Matheson, Dorothy; Mattice, Lewis W. and Gayle; Mattice, James L.; Mattice, Mary L.; Mausbach, Judith; McAlister, Betsy K.; McAlister, Edgar O.; McBryde, Frank Joseph Trust; McCarger, Doris; McCargar, Edward James; McClain, Terry Lee; McClain, William T.; McColloch, Pamela; McColloch, Robert L.; McCoy, Lee A. and Cheryl A.; McCray, Nancy R.; McCray, W.G.; McHale, Michael Martin; McHale, Norma; McKay, James C.; McKay, Marjorie M.; McKay, Mervin M.; McKinnon, Barbara J.; McKinnon, Fred E.; McWhirter, Mildred K.; Meier, Virgil; Melio Maionchi Lee Ivy Ranches; Mencarini, Amos Jr., Trust; Menesini, Donald G.; Menesini, Edward L. and Kristie L.; Menesini, Gene; Menesini, Gene J. Trustee; Menesini, Gerald T.; Menesini, Grace; Menesini, Grace; Menesini, Lucinda; Menesini, Orlando; Menesini, Pete; Menesini, Renee E.; Merczak, Elvetia; Merritt, David L.; Merritt, Teresa C.; Merriwether, William; Mestmaker, Robert; Methodist Epicopal Church; Mickey Mutual Ditch Company; Miller, John M. and Christie A.; Miller, Lucille B.; Miller, Robert J.; Miner, Frances; Minister, Rose Alice, Trustee; Mitchell, Ginger; Mitchell, Ronald; Monia, Elaine; Monia, Elaine; Monia, Ray; Monia, Ray; Montgomery, Jeffrey K.; Montgomery, Mary; Montgomery, Tammy T.; Moore, Anthony P.; Moore, Joyce; Moore, Laurie; Moore, Monica R.; Moore, Harold Trust; Moorehead, Emma M., M. S.P. Trust; Moorehead, Si F.; Moreda, Clarence J. - Family Trust; Moreda, Dairy; Moreda, Janet; Morse, George C. III; Morse, George C. Jr.; Morse, Kathleen R.;

(159)

Mortimore, Craig A.; Mustang Properties; Naftali, Nadel - Circle) Bar-N Ranch; Nagel, Helen; Nagel, Robert R.; Nagel, Shirley J.;) Nannini, Anna; Nannini, Guido; Nesmith, John F.; Nesmith,) Teresa M.; Nesmith Family Trust; Neuhauser, Geneva Ruth;) Neuhauser, Larry; Nevada Department of Wildlife; Nevada Lands) Division; Nevada-Utah Association of Seventh Day Adventists;) Nevin, Melba; Nevin, Wilbur W.; Newcombe, Linda; Nielson,) Norman & Deana; Niti, Lawrence; Norman D. Brown, Inc. (a) corporation); Novy, Lowell; Nugent, Evelyn; Nugent, George D.;) Nuti, Armando; Nuti, Helen L.; Nuti, Lawrence; Nuti, Leslie;) Nuti, Mary E.; Nuti, Mary R.; Nuti, Michael; Nuti, Ralph E.;) Nuti, Ralph C.; Nuti Brothers; O'Banion, James R.; O'Connor,) Kelli S.; O'Connor, Paul D.; Ogle, Leanna, M.; Orrin, Kenneth;) Osborne, G.L.; Osborn, Henry S.; Osborne, R.E.; Owens, David) A.; Owens, Cindy R.; Oxsen, Nancy; Oxsen, Peter; P.D.) Explorations, Inc. - Phelps Dodge Corporation; Pace, Jeannie;) Pacific-Ag Supplies, Inc.; Palmer, Alfred, Trustee; Palmer, Joy,) Trustee; Palmer, Joy L.; Park, W.B.; Park Livestock Company;) Parker, Patricia; Parker, Raymond E.; Parraguirre, D.; Parris, Judy) Y.; Parris, Thomas A.; Patton, Marolyn; Patton, Marolyn B., Co-) Trustee; Patton, Thomas, Co-Trustee; Pederson, Alenzo; Pederson) Katie; Peeples, Frank Terry; Peeples, Frank Terry; Peeples, Josiah) P.; Peeples, Norma M.; Pelayo, Dan; Pelayo, R.A.; Pellegrini,) Debra L.; Pellegrini, Steven W.; Pellegrini, Violet; Pendleton,) Cleo C.; Pendleton, Daniel L.; Pendleton, Janet; Pendleton,) Jennifer; Penrose, Herbert W. Family Trust; Penrose General Imp.) District - County of Lyon, NV; Peri & Peri, A Partnership; Peri &) Sons) Farms, Inc. (a corporation); Perrin Trusts - Francis L. Perrin;) Perriseau, Melvin; Perriseau, Modesta; Perry, Gena; Perumean,) Cecelia C.; Perumean, Pete; Peters, Darlene; Peters, Glen;) Peterson, Leland C.; Petersen, Leon E.; Peterson, Marion W.;) Petersen, Martin W.; Petersen, Norma D.; Phelps Dodge) Corporation - Real Estate Development; Phillip, Joan F.; Phillip,) Richard L.; Pinenut Ranch Cattle Corporation (a corporation) Pitchfork Rank, Inc. (a corporation); Plett, Pauline; Plett, Walter;) Polish, Evelyn; Poli, John; Poli, Nancy; Polish, Louis; Porter,) Harold; Porter, Randy; Porter, Sherri; Porter, Tracee; Pruett) Ranches, Inc. (a corporation); Pumpkin Hollow Farms, Inc. (a) corporation); Purrell, James E.; Purrell, Karen M.; Purrell Trust;) Pursel, Delbert; Pursel, James; Pursel, Melvin; Pursel, Norma;) Pursel, Norman; Pursel, Phyllis; Pursel Ranch, A Partnership;) Quealy, B.V.; Quealy, T.H.; Quilici, Basil A.; Quilici, Basil A.;) Quilici, Louise; Quilici, Norma Yvonne; Quilici, Pauline L.;) Quiroga, Carlos and Ofelia Trust; R.N. Fulstone Company; R and R) Services, Inc.; Raisbeck, Nancy L.; Raisbeck, Peter D.; Ramsey,) Leila; Rathburn, Richard M. Jr.; Rauber, William S., Trustee;) Regan, Ruby C. Trust - Ruby Regan; Renner, Donald W.; Renner,) Donald W.; Renner, Dorathea K.; Renner, Thomas R; Richardson,) Elizabeth; Richardson, Glenna; Richardson, Ralph; Ritter, John) Gustave III; Ritter, Lucille; Ritter Family Trust; Riva, Anne M.;) Riva, Hebert R.; Roberti, Carl; Roberts, George C.; Roderick,) Joseph; Roderick, Laurel; Rogers, Ralph; Rolston, Kenneth J.;) Rolston, Linda; ROMA Corporation (a corporation); Roman) Catholic Bishop of Reno; Romano, Dennis; Romano, Diane R.;) Rosaschi, Angelo Joseph; Rosaschi, Connie; Rosaschi, Lena,)

(160)

Trustee; Rosaschi, Lester; Rosaschi, Michael G.; Rosaschi, Paula L.; Rosse, Debra D.; Rosse, Jerry R.; Rupe Family Trust; Ryerson, Alison M.; Ryerson, Morris E.; Salmonson, Karen; Salmonson, Michael L.; Salvador, William and Leota Trust; Santos, Christina M.; Santos, Paul J.; Sario Livestock Co.; Saunders, Eva Irene; Sayer, Cora Trust; Scatena, Lorraine B.; Scatena, Louis G.; Sceirine, David A.; Sceirine, Edna Jayne; Sceirine, Herbert; Sceirine, Jackie Duane; Sceirine, Jayne; Sceirine, Joseph; Sceirine, Joseph E.; Sceirine, Lester; Sceirine, Susan L.; Schendel, Madge E.; Schendel, Robert J.; Schmid, Ethel; Schmidt, Judy; Schotz, Peggy L.; Schotz, Robert J.; Schuster, Donna; Schuster Family Trust; Schwake, Frederick; Schwake, Patricia; Sciarani, Arnold Jr.; Sciarani, Donna; Sciarani, Eugo; Sciarani, Glenn; Sciarani, James; Sciarani, John; Sciarani, Mildred; Sciarani, Nelson; Sciarani, Nelson; Sciarani, Nelson, Trustee; Sciarani, Paul; Sciarani Trust; Scribner, Cynthia; Scribner, Vance; Seibert, Candace; Seifert, Judy A.; Seifert, Stanley D.; Seubert, Donald R.; Seubert, Sophia; Shehady, Donald and Teresa Trust; Sherlock, Michael; Sherlock, Robert; Sherlock Trust - Michelle Sherlock; Sherlock Trust - Robert D. Sherlock; Shively, E. Duane, Trustee; Shively, Russelle, Trustee; Shively 1991 Revocable Trust; Shoemaker, Janis; Shope, Edward B.; Shope, Joanna C.; Sierra Pacific Power Co.; Silva, Dorthella A.; Silva, Edward B.; Silva, Gary C.; Silva, Paul S.; Silva, Tildean L.; Silva Trust, Declaration of Vaughn & Shirley A., Shirley A. Silva, Trustee; Silverado, Inc. (a corporation); Simmons, Leia H.; Simmons, Patricia; Simpson, E.R.; Singer, Linda; Singer, Steve; Six N Ranch, Inc. (a corporation) Smith, Barbara J.; Smith, Cary R.; Smith, Cheryle Ann; Smith, Daniel G.; Smith, Ermon W.; Smith, Gaila M.; Smith, Glen H.; Smith, Grant, B.; Smith, Grant, B.; Smith, Kathy L.; Smith, Keith A.; Smith, Mary E.; Smith, Mary Lee; Smith, Norville W.; Smith, Norville W.; Smith, Patricia Ann; Smith, Shawna S.; Smith, Wilbur L.; Smith, Verda; Smith Ranch Partnership; Smith Valley Cattle Feeders; Snyder, Eddie R.; Snyder, Frances; Snyder, Lucy A.; Snyder, Theresa; Snyder Livestock Company, Inc. (a corporation) Soderstrom, Dave Jr.; Soderstrom, Joan; Solifume, Inc. (a) corporation); Sorenson, Kenneth A. and Margaret; Spragues Company; Spezzi, Stanley R., U/C.; Stanley, John D.; Stanley, John D. Sr.; Stanley, Marlyse R.; Stark, Glenn M.; Stark, Ruth L.; Starr, D.E.; Stebbins, Richard W.; Stebbins, Roberta; Steele, Charles R.; Steele, Karen R.; Steneri, Donald R.; Steneri, Jamy L.; Steneri, Mary L.; Steneri Trust - Robert S. Capurro, Trustee; Stevens, Ronald Lynn; Stewart, Michael B.; Stewart, Sandy; Stillfield, Donna Jeanne Thomas; Stottlemeyer, E.; Stottlemeyer, Charles E. Jr.; Stoughton, Candace; Stoughton, Robert G.; Stout, Jack F.; Stout, Nancy; Stovall, Judith Lee; Strong, Charles W.; Strosnider, Inc. (a corporation); Strosnider Family Trust - Carolyn Strosnider; Strosnider Family Trust - Kenneth Strosnider; Sturge, Michael A.; Sturge, Michelle A.; Sturtevant, Helen M.; Sundance Cattle Company; Sundance Feedlot, Inc. (a corporation); Swagger Ranch, Inc. (a corporation); Swainston, George and Dorothy Trust; Swainston Family Trust; Sweetwater Land & Cattle Co.; Taber, Don G.; Taber, Phyllis B.; Talbott Land & Livestock; Tamagni, Raymond Family Trust, Janice E. Tamagni; Tamagni, Raymond Family Trust, Raymond Tamagni; Tamagni, Victor; Tamagni

(14)

Family Trust - Florence Tamagni, Trustee; Tamagni Family Trust -) Raymond E. Tamagni, Trustee; Taylor, Dola; Taylor, Laurence B.;) Taylor, Lloyd T.; Taylor, Mary M.; Terry, L.; Terschluse, Barbara;) Terschluse, Donald; Terschluse, Marie; Terschuluse, Robert;) Thacher, John H. and Cardine H.; The Plymouth Land & Stock Co.;) The Uhland Family Trust - Craig Uhland, Trustee; The Uhland) Family Trust - Shawn Uhland, Trustee; Tholke, R.; Tholke, Rachel;) Tholke, Rachel, Trust; Thom, Douglass; Thom, May; Thomas,) Ami; Thomas, Jim R.; Thomas, Katherine L.; Thomas, Terry S.;) Thomas, Tracy Glaze; Thomas, Wilson; Thompson, Clifford A.;) Thompson, Evelyn; Thorn, Douglas; Tibbals, Carol J.; Tibbals,) Joseph; Tibbals, Joseph W.; Tibbals, Margaret; Tibbals, Shari L.;) Tibbals, Walter C.; Tibbals Family Trust - Donald H. Tibbals;) Tibbals Family Trust - Joy M. Tibbals; Tierney, Karen M.;) Tijsseling, Dick G.; Tijsseling, Judith A.; Tilley, Jerry E.; Tilley,) Jerry E. Trust - Jerry E. Tilley, Trustee; Titus, Robin Lee; Toigo,) Kathleen A.; Toigo, Thomas J.; Toll House Canyon Pardners;) Tomac, Laura; Tomac, Steve; Topaz Ranch, Inc. (a corporation) Twelves, Helen; Twelves, James; Twin Lakes Enterprises, Inc. (a) corporation); Twombly, C.W. & V.B Trust - C.W. Twombly,) Trustee; Twombly, C.W. and V.B. Trust - J. Snook, Trustee;) Twombly, V.; U.L. Maple; Ugo Giorgi Family Trust - Ugo Giorgi,) Trustee; Umberger, Lodema; Umberger, William W.; Valdez,) Ramon and Myrna E.; Van Horn, Karen; Van Horn, Philip; Van) Vilet, M and Sons, Inc. (a corporation); Vandebrake, Audrey;) Vandebrake, Vernon; Vernon F. Bryan, Inc. (a corporation); Vetsch) Robert; Vetsch, Leonard; Veuve, Gary J.; Veuve, Mary R.;) Virdin, William M.; Virdin, Virginia Sue; Virginia Creek Hydro,) Inc. (a corporation); Virginia Lakes Mutual Water; Vogel, Beverly) K.; Vogel, Bruce G.; Walker, Gerald L. Fickes;) Wallin, Lawrence B.; Wallin, Theresa M.;) Warburton Family Trust - Joseph Warburton; Warburton Family) Trust - Winifred Warburton; Ward, Catherine M.; Ward, Mark D.;) Warr, David T.; Warr, John; Watkins, Louis H.; Watkins, Mildred) A.; Weaver, John R.; Weaver, Lura K.; Weaver, William M. Jr.;) Wedertz, Gilbert C.; Wesley, Joel and Sandra G. Brown; West) Highland Ditch Co-Op; Westpac Utilities; Wilder, Joan; Wilens) Family Trust; Wilkinson, Philip; Wilkinson, Vivian; Williams,) Doris M.; Williams, Durell & Virginia Trust; Williams, E.M.,) Trustee; Williams, Evangeline; Williams, Harold S.; Williams, Jack) H.; Williams, Joni Fay; Williams, Kenneth and Elizabeth Trust -) Elizabeth Williams; Williams, Kenneth and Elizabeth Trust -) Williams; Williams, Leonard and Emily Trust -Leonard S. Williams;) Williams, Philip A.; Williams, Thomas E.; Willowcreek General) Improvement District; Wills, Dennis; Wills, Marilyn; Wines,) Daniel R.; Wines, Karen L.; Wipfli, Candyce; Wipfli, Tom; Wise,) Catherine E.; Wise, David E.; Wolff, William J.; Woodard, Arlene) Woodard, Carol; Wright, Joseph; Wright, Mary Mackedie;) Wright, Nadia; Wright, Susan; Wright, Wayne D.; Wymore,) Gerald Lee; Zippwald ,Jack C.; Zwiebel, A.J.)
)
Counterdefendants,)
)
All known Claimants To Groundwater and Waters Of The)
Walker River And Its Tributaries In The State of Nevada And)

(102)

The State of California)
)
)

FIRST AMENDED COUNTERCLAIM OF THE
UNITED STATES OF AMERICA

COMES NOW, the United States of America, at the request of the Secretary of Defense, the Secretary of Agriculture, and the Secretary of the Interior, by and through its undersigned attorneys, on its own behalf and for the benefit of the Walker River Paiute Tribe, the Yerington Paiute Tribe, the Bridgeport Paiute Indian Colony, and several individual Indians who are owners of allotments, either held in trust by the United States or held in restricted status by the United States, and herewith asserts the following claims:

INTRODUCTION

1. This first amended counterclaim is made for the confirmation and declaration of certain rights in the United States to the use and storage of water in, on, under and otherwise appurtenant to certain lands in the Walker River basin owned by the United States that are under the jurisdiction of the Department of Defense, the Department of Agriculture and the Department of the Interior; or, held in trust or restricted status by the United States for the benefit of individual Indians, and certain Indian Tribes. The rights set forth in this first amended counterclaim are in addition to the right to divert the natural flow of the Walker River and its tributaries, awarded to the United States in the Decree entered in this action on April 15, 1936, as amended on April 24, 1940 in United States v. Walker River Irrigation Dist., In Equity No. C-125, hereinafter, the "Decree."

JURISDICTION

2. Jurisdiction over this first amended counterclaim is pursuant to (i) the continuing jurisdiction of this Court, by virtue of the Decree entered herein, over the waters of the Walker River and its tributaries in California and Nevada; (ii) 28 U.S.C. §1345 in that the proceedings are brought by the United States; (iii) 28 U.S.C. §1367 which vests the court with supplemental jurisdiction; (iv)

(162)

28 U.S.C. §1651 which authorizes the court to issue all writs necessary or appropriate in aid of its jurisdiction; (v) 28 U.S.C. §1331, in that this first amended counterclaim is brought by the United States of America, on its own behalf and for the benefit of individual Indians, and Indian Tribes, and the matter in controversy arises under the Constitution, laws or treaties of the United States.

PARTIES

3. Counterclaimant, the United States of America, appears in this case on its own behalf and for the benefit of specified individual Indians, and certain Indian Tribes.

4. Counterdefendants are all claimants to water of the Walker River and its tributaries, including groundwater.

GENERAL ALLEGATIONS

5. The United States of America, under the Decree, currently has the right to use the natural flow of the waters of the Walker River and its tributaries in the amount of 26.25 cubic feet per second with a priority date of November 29, 1859, to irrigate 2,100 acres of land on the Walker River Reservation.

6. The suit commenced by the United States in 1924, under Docket Number C-125, was brought to quiet title and only concerned the water rights for use on the Walker River Indian Reservation as those boundaries existed at the time the suit was commenced. The suit did not adjudicate the groundwater rights of any of the parties in the litigation.

7. Paragraph XII of the 1936 Decree, entered on April 15, 1936, was amended on April 24, 1940, to reflect that the Decree determined water rights "as of the 14th day of April, 1936." Paragraph XIV of the Decree provides that this Court retains jurisdiction for a number of purposes, including modification of the Decree.

8. Subsequent to April 14, 1936, numerous persons and other entities, including the United States, have appropriated additional waters from the Walker River Basin and its tributaries. In many instances such claims to the use of water have not been subject to any adjudicative process.

9. In addition to the Walker River Indian Reservation, there are other lands within the Walker

River Basin owned by the United States that are under the jurisdiction of the Department of Defense, the Department of Agriculture and the Department of the Interior. There are also lands in the Walker River Basin, in addition to the Walker River Indian Reservation, owned by the United States and held in trust or restricted status for the benefit of specified individual Indians, the Bridgeport Paiute Indian Colony and the Yerington Pauite Tribe.

These lands and their appurtenant water rights and claims for water are more particularly described below.

FIRST CLAIM FOR RELIEF

WEBER RESERVOIR

10. Weber Reservoir is a federally-constructed reservoir located on the Walker River Indian Reservation with a storage capacity of approximately 13,000 acre feet. The reservoir was practically completed in 1935, although floodgates were added in 1937. The United States, for the benefit of the Walker River Paiute Tribe, is entitled to store water from the Walker River and its tributaries in Weber Reservoir for all purposes recognized under federal law including but not limited to irrigation, stock watering, fish and wildlife, and domestic uses.

11. By the use of Weber Reservoir to store water, the Walker River Paiute Tribe can irrigate more than the 2,100 acres which it presently is entitled to irrigate under the terms of the Decree.

12. The right to store water in Weber Reservoir has a priority date of April 15, 1936. The amount claimed is 13,000 acre-feet plus evaporation and seepage.

SECOND CLAIM FOR RELIEF

LANDS RESTORED TO WALKER RIVER RESERVATION

13. Paragraphs 1-12 are incorporated herein as if fully set forth in this paragraph 13.

14. The Walker River Indian Reservation was established in 1859 with a land base of approximately 320,000 acres. Under the Act of May 27, 1902, 32 Stat. 260-261, the Reservation land base substantially reduced. A substantial part of these original Reservation lands, however, were restored to the Reservation on September 25, 1936, pursuant to the Act of June 22, 1936. The Act of June 22, 1936, 49 Stat. 1806-07, authorized the Secretary of the Interior to set aside certain lands as

an addition to the Walker River Indian Reservation. In accordance with the legislation, by Order dated September 25, 1936, the Secretary restored to the Walker River Indian Reservation approximately 167,460 acres.

15. The United States, for the benefit of the Walker River Paiute Tribe, is entitled to use water from the Walker River, its tributaries, and all other water located in, on, under, adjacent or otherwise appurtenant to the restored lands of the Reservation for all purposes recognized under federal law. The restored lands of the Reservation are entitled to a federal reserved water right as of the date of restoration.

16. The United States, for the benefit of the Walker River Paiute Tribe, is entitled to water rights for the restored lands in addition to the rights now recognized for use on the lands of the Reservation under the Decree.

THIRD CLAIM FOR RELIEF

GROUNDWATER FOR ALL LANDS WITHIN WALKER RIVER RESERVATION

17. The United States, for the benefit of the Walker River Paiute Tribe, is entitled to use the groundwater of the Walker River basin located in, under, adjacent or otherwise appurtenant to all lands of the Walker River Indian Reservation not otherwise claimed in this First Amended Counterclaim.

18. The amount claimed is the amount necessary to fulfill the purposes of the Reservation.

19. The priority date claimed is November 29, 1859, or, in the alternative, April 15, 1936.

FOURTH CLAIM FOR RELIEF

YERINGTON PAIUTE TRIBE

20. Paragraphs 1-19 are incorporated herein as if fully set forth again in this paragraph 20.

21. The United States, at the request of the Secretary of the Interior, and for the benefit of the Yerington Paiute Tribe, makes the following claim for water from the Walker River, its tributaries, and all other water located in, on, under, adjacent or otherwise appurtenant to the lands hereinafter described.

22. The Yerington Reservation is located in Lyon County, Nevada, approximately eighty (80)

miles southeast of Reno, Nevada. The Reservation contains 1,636.24 acres, of which approximately 22.9 acres are located within the City of Yerington, Nevada. The majority of these lands were acquired pursuant to the Indian Reorganization Act, §§ 5, 7, 48 Stat. 984, 25 U.S.C. §§ 465, 467.

23. The United States claims federal reserved water rights for these lands with the following priority dates:

A. Parcel 1:

Parcel 1 is 9.456 acres located in Section 22, T. 13 N., R. 25 E., MDM. The priority date claimed is May 25, 1917, which is based on the Act of May 18, 1916, 39 Stat. 143. In the alternative, the priority date claimed is April 15, 1936.

B. Parcel 2:

Parcel 2, which is sometimes referred to as Campbell Ranch, is 1,036.24 acres located in portions of Sections 7,17,18, and 20. MDM. The priority date claimed is December 10, 1936, the date of purchase, which purchase as made pursuant to the Indian Reorganization Act of 1934, §§ 5,7, 48 Stat. 984, and the Act of May 9, 1935, 49 Stat. 176.

C. Parcel 3:

Parcel 3 is 120 acres located on the N1/2 of the NE1/4 OF Section 18, and the NE1/4 of the NW1/4 of Section 20, T. 14 N., R. 25 E., MDM. The priority date claimed is June 18, 1940, which is based on the Act of June 18, 1940, 54 Stat. 414-415. In the alternative, the priority date claimed is November 15, 1941.

D. Parcel 4:

Parcel 4 is 12.91 acres in or near the Town of Yerington located within the NW1/4 of Section 22, T. 14 N., R. 25 E., MDM. The priority date claimed is the date of purchase, January 20, 1978.

E. Parcel 5:

Parcel 5, which is sometimes referred to as Arrowhead Ranch, is approximately 480 acres located in the W1/2 and the W1/2 of the E1/2 of Section 16, T. 14 N., R. 25 E., MDM. The priority date claimed is April 9, 1979.

24. The federal reserved water claimed for the benefit of the Yerington Paiute Tribe is claimed in order to fulfill the purposes of the Reservation. In addition to the claims set forth

above for federal reserved rights, the United States also seeks a declaration and confirmation of the water rights held under state law which have been acquired in connection with the above described parcels.

FIFTH CLAIM FOR RELIEF

BRIDGEPORT PAIUTE INDIAN COLONY

25. Paragraphs 1-24 are incorporated herein as if fully set forth again in this paragraph 25.

26. The United States, at the request of the Secretary of the Interior, and for the benefit of the Bridgeport Paiute Indian Colony makes the following claim for water from the Walker River, its tributaries, and all other water located in, on, under, adjacent or otherwise appurtenant to the lands hereinafter described.

27. The Bridgeport Paiute Indian Colony consists of 40 acres and is located in the SE1/4NE1/4, Section 28, T. 5 N., R. 25 E., MDB&M.

28. The United States claims federal reserved water rights for the Bridgeport Paiute Indian Colony, made pursuant to an Act of Congress, 88 Stat. 1368, with a priority date of no later than October 18, 1974, the date of creation of the Colony.

29. In addition, for the Bridgeport Paiute Indian Colony, the United States also claims water rights based on California law, including but not limited to riparian, overlying and prescriptive rights, if any.

30. The water claimed for the benefit of Bridgeport Paiute Indian Colony is claimed in order to fulfill the purposes of the Colony.

SIXTH CLAIM FOR RELIEF

GARRISON AND CLUETTE ALLOTMENTS

31. Paragraphs 1-30 are incorporated herein as if fully set forth again in this paragraph 31.

32. The United States, at the request of the Secretary of the Interior, and for the benefit of the Garrison and Cluette allottees makes the following claim for water from the Walker River, its tributaries, and all other water located in, on, under, adjacent or otherwise appurtenant to the lands

(108)

hereinafter described.

33. The Garrison and Cluette Allotments are both located in S. 17, T. 8 N., R. 23 E., MDB&M. The Garrison Allotment consists of 30.18 acres; the Cluette Allotment consists of 20.02 acres.

34. The United States claims federal reserved water rights for the Garrison and Cluette allotments, made pursuant to the Act of June 30, 1932, 47 Stat. 474, with the following priority dates:

A. Garrison Allotment:

The priority date claimed is no later than November 10, 1933. In the alternative, the priority date claimed is April 15, 1936.

B. Cluette Allotment:

The priority date claimed is no later than May 8, 1933. In the alternative, the priority date claimed is April 15, 1936.

35. In addition, for both allotments, the United States also claims water rights based on California law, including but not limited to riparian, overlying and prescriptive rights.

36. The water claimed for the benefit of the Garrison and Cluette Allottees is claimed in order to fulfill the purposes of the allotments, above and beyond any water rights already acquired under State law for these allotments.

SEVENTH CLAIM FOR RELIEF

INDIVIDUAL ALLOTMENTS

37. Paragraphs 1-36 are incorporated herein as if fully set forth in this paragraph 37.

38. The United States, at the request of the Secretary of the Interior, and for the benefit of the individual Indians, makes the following claim for water from the Walker River, its tributaries, and all other water located in, on, under, adjacent or otherwise appurtenant to the lands hereinafter described:

	Allotment #	Township	Range	Section	Portion	Area (acres)	Walker R. Basin
1	402	10N	21E	1	NW1/4	119.43	Yes
2	212	10N	21E	1	SW1/4	160	Yes

169

3	403	10N	21E	2	NE1/4	159.50	Yes
4	404	10N	21E	2	NW1/4	159.05	1% outside
5	405	10N	21E	2	SW1/4	160	Partial
6	719	10N	21E	2	SE1/4	160	Yes
7	406	10N	21E	11	NW1/4	160	Partial
8	723	10N	21E	14	NE1/4	160	Partial
9	721	10N	21E	12	NW1/4	160	Yes
10	735	10N	21E	14	SE1/4	160	1% outside
11	699	10N	21E	12	SW1/4	160	Yes
12	698	10N	21E	12	SE1/4	160	Yes
13	725	10N	21E	13	NE1/4	160	Yes
14	726	10N	21E	13	NW1/4	160	Yes
15	727	10N	21E	13	SW1/4	160	Yes
16	718	10N	21E	13	SE1/4	160	Yes
17	715	10N	21E	24	NE1/4	160	Yes
18	716	10N	21E	24	NW1/4	160	Partial
19	717	10N	21E	24	SE1/4	160	Yes
20	682	10N	22E	1	S1/2NE1/4	80	Yes
		10N	22E	1	SE1/4NW1/4	40	Yes
		10N	22E	1	NE1/4NE1/4	32.69	Yes
21	304	10N	22E	3	S1/2NW1/4	80.01	Yes
		10N	22E	3	NW1/4NW1/4	38.88	Yes
		10N	22E	3	NE1/4NW1/4	38.71	Yes
22	303	10N	22E	4	S1/2NE1/4	80	Yes
		10N	22E	4	NE1/4NE1/4	39.01	Yes
		10N	22E	4	NW1/4NE1/4	39.12	Yes
23	289	10N	22E	4	NW1/4	158.59	Yes
24	288	10N	22E	4	SW1/4	160	Yes
25	290	10N	22E	4	SE1/4	160	Yes
26	236	10N	22E	6	NE1/4	160	Yes
27	235	10N	22E	6	NW1/4	160	Yes
28	237	10N	22E	6	SE1/4	160	Yes

29	238	10N	22E	7	NE1/4	160	Yes
30	276	10N	22E	7	E1/2SE1/4	80	Yes
		10N	22E	8	S1/2SW1/4	80	Yes
31	277	10N	22E	8	S1/2SE1/4	80	Yes
		10N	22E	17	N1/2NE1/4	80	Yes
32	260	11N	21E	36	NE1/4	160	Yes
33	259	11N	21E	36	NW1/4	160	Yes
34	399	11N	21E	36	N1/2SE1/4	80	Yes
		11N	21E	36	SE1/4SE1/4	40	Yes
35	257	11N	21E	25	SW1/4	160	Partial
36	258	11N	21E	25	W1/2SE1/4	80	Yes
		11N	21E	25	SE1/4SE1/4	40	Yes
37	215	11N	21E	25	NE1/4NE1/4	39.95	No
		11N	22E	30	NW1/4NW1/4	39.48	Partial
		11N	22E	30	SW1/4NW1/4	39.48	Yes
38	216	11N	22E	30	W1/2NE1/4	80	Partial
		11N	22E	30	E1/2NW1/4	80	Partial
39	217	11N	22E	30	E1/2NE1/4	80	Partial
		11N	22E	29	W1/2NW1/4	80	Partial
40	218	11N	22E	29	W1/2NE1/4	80	Partial
		11N.	22E	29	E1/2NW1/4	80	Partial
41	285	11N	22E	30	E1/2SW1/4	80	Yes
		11N	22E	30	NW1/4SW1/4	39.54	Yes
		11N	22E	30	SW1/4SW1/4	39.59	Yes
42	286	11N	22E	30	SE1/4	160	Yes
43	287	11N	22E	29	SW1/4	160	Yes
44	344	11N	22E	29	SE1/4	160	Yes
45	305	11N	22E	31	E1/2NW1/4	78.02	Yes
		11N	22E	31	NW1/4NW1/4	39.67	Yes
		11N	22E	31	SW1/4NW1/4	39.76	Yes
46	306	11N	22E	31	NE1/4	160	Yes
47	400	11N	22E	31	SW1/4	159.81	Yes

48	401	11N	22E	31	SE1/4	160	Yes
49	702	12N	22E	24	NE1/4	160	Yes
50	700	12N	22E	24	NW1/4	160	Yes
51	701	12N	22E	24	SW1/4	160	Yes
52	705	12N	22E	24	SE1/4	160	Yes
53	703	12N	22E	25	NW1/4	160	Yes
54	704	12N	22E	25	SW1/4	160	Yes
55	706	12N	22E	25	SE1/4	160	Yes

39. The United States claims federal reserved water rights for 55 allotments, made pursuant to the General Allotment Act of 1887, with the following priority dates:

A. Trust Allotments 1 through 5, 7 and 21 through 48:

The priority date claimed is no later than December 31, 1895. In the alternative, the priority date claimed is April 15, 1936.

B. Trust Allotments 6 and 8 through 20:

The priority date claimed is no later than May 26, 1908. In the alternative, the priority date claimed is April 15, 1936.

C. Trust Allotments 49 through 55:

The priority date claimed is no later than December 9, 1907. In the alternative, the priority date claimed is April 15, 1936.

40. The water claimed for the benefit of individual Indian allottees is claimed in order to fulfill the purposes of the allotments.

EIGHTH CLAIM FOR RELIEF

HAWTHORNE ARMY AMMUNITION PLANT

41. Paragraphs 1-40 are incorporated herein as if fully set forth in this paragraph 41.

42. The Hawthorne Army Ammunition Plant (hereinafter "Hawthorne Reservation") was originally withdrawn and reserved from the public domain by Executive Order 4531 on October 27,

1926. Additional contiguous lands were withdrawn and reserved from the public domain to become a part of the Hawthorne Reservation pursuant to Executive Order 5664 on July 2, 1931, Executive Order 5828 on March 30, 1932 and Executive Order 6958 on February 4, 1935.

43. Said lands were reserved for the Hawthorne Ammunition Plant for the exclusive use and benefit of the United States Navy for the development and use as an ammunition depot. In 1979, the management of the Reservation was transferred to the Department of the Army.

44. Pursuant to 10 U.S.C. § 3062, Hawthorne's mission includes:

(1) preserving the peace and security, and providing for the defense, of the United States, the Territories, Commonwealths, and possessions, and any areas occupied by the United States;

(2) supporting the national policies;

(3) implementing the national objectives; and

(4) overcoming any nations responsible for aggressive acts that imperil the peace and security of the United States.

45. The Hawthorne Reservation is located in Mineral County, Nevada adjacent to the town of Hawthorne on the eastern slope of the Wassuk mountain range and the south shore of Walker Lake, and contains approximately 147,000 acres of land dedicated to the above-stated mission.

46. The United States is entitled to the use of all of the waters located in, on, under, or otherwise appurtenant to the lands of the Hawthorne Reservation necessary to fulfill all of the purposes for which the reservation was created as recognized under federal or state law. Such lands are entitled to a federal water right with a date of priority date as of the date of the withdrawal and reservation from the public domain.

47. The United States of America has and is also entitled to state-based appropriative rights as well as federally reserved water rights in both surface and underground waters, including, but not limited to, aquifers, springs, seeps, rivers, streams and lakes wholly or partly on or otherwise appurtenant to the Hawthorne Reservation including Walker Lake in quantities of water necessary for present and future use and development of the Hawthorne Reservation and in the accomplishment of its mission. This includes, but is not limited to: providing water in amounts necessary for

commercial, municipal and industrial operations (eg. storage, maintenance, inspection, modification, testing and demilitarization of munitions); fire-fighting; administration and operation; training; domestic; recreation; wildlife and livestock management; irrigation; mobilization; deployment; and tactical applications. Additionally, the United States is entitled to reserved water rights for any and all other purposes for which the Hawthorne Reservation was withdrawn and reserved.

48. The priority date of the reserved water rights for the Hawthorne Reservation, for present and future use and development and the accomplishment of its mission, is October 27, 1926, the date Hawthorne was originally withdrawn and reserved from the public domain.

49. The reserved and state water rights for the Hawthorne, Reservation for present and future use and development and the accomplishment of its mission, for the purposes described in paragraphs 44 and 47, supra, include, but are not necessarily limited, to the following water sources, diversions, storage reservoirs, and amounts:

(a) Cottonwood Creek/Black Beauty Reservoir: Water is diverted from the following four diversion points in Cottonwood Canyon, west and south of the Town of Walker Lake and stored in Black Beauty Reservoir.

Weir #1 - up to 220 GPM

Weir #2 - up to 200 GPM

Weir #3 - up to 400 GPM

Little Catch - up to 50 GPM

(b) Squaw Creek/Black Beauty Reservoir: Water is diverted from Squaw Creek up to 75 GPM and is stored in Black Beauty Reservoir.

(c) Rose Creek/Rose Reservoir: Water is diverted from Rose Creek up to 200 GPM and stored in Rose Reservoir. Rose Reservoir has a storage capacity of 39,000,000 gallons (120 acre feet (af)). Water is drawn from Rose Reservoir via a pipe line to Black Beauty Reservoir.

(d) Middle Rose Creek/Rose Reservoir: Water is diverted from Middle Rose Creek up to 75 GPM and is stored in Black Beauty Reservoir.

(e) House Creek/Black Beauty Reservoir: Water is diverted from House Creek up to 25 GPM and is stored in Black Beauty Reservoir.

(f) Cat Creek Dam and Reservoir: Water from Cat Creek is stored behind Cat Creek Dam up to 50,000,000 gallons (153 af). Water from Cat Creek is also stored in Black Beauty Reservoir.

(g) Dutch Creek: Water may be diverted from Dutch Creek in amounts necessary for the future use and development of the Hawthorne Reservation and in the accomplishment of its mission.

(h) Black Beauty Reservoir: A 48,000,000 gallon (147 af) storage reservoir which receives, or may in the future receive, its water from the sources listed in (a) through (g) above.

(i) Walker Lake: Sufficient water for the purposes described in paragraphs 44 and 47, supra.

50. The reserved water rights for the Hawthorne Reservation, for present and future use and development and the accomplishment of its mission, for the purposes described in paragraphs 44 and 47, supra, include, but is not limited to, the following groundwater sources and amounts:

(a) Well #1 - 950 gpm: Located north of the Industrial Area and south of HWY 95 and used to supply water to the Industrial Area. This water is pumped into a storage tank to be used on demand.

(b) Well #2 - 250 gpm: Located east of the town of Hawthorne and just south of HWY 95 at the entrance to the South Magazine Area.

(c) Well #3 - 250 gpm: Located east of the town of Hawthorne and south of HWY 95 and in the Southern Magazine Area.

(d) Well #4 - 250 gpm: Located in the southern storage area of the installation and used to supply water to the South Magazine area via a pipeline to 3 above-ground tanks.

(e) Well #5 - 800 gpm: Located west of Schwear Housing Area and sometimes stored in Black Beauty Reservoir.

(f) Well #6 - 640 gpm: Supplies Babbitt and the North and Central Magazine areas. The water is pumped into a 1,000,000 gallon (3 af) storage tank for use on demand.

(g) Well #7 - 250 gpm: Located between tank 5 and building 108-20.

(h) Well #8 - (total available capacity): Located on the west side of tank 6.

(i) Well #9 - (total available capacity): Located on the southwest side of Babbitt Housing Area.

51. In addition to the above-listed federal reserved water rights for the Hawthorne

Reservation, the United States has numerous appropriative water rights some of which were acquired when land was purchased by the United States of America and which subsequently became a part of the Hawthorne Reservation.

52. In the event of a mobilization the increase in Hawthorne activities will rise to an as yet unknown amount, but at a minimum of approximately 80% (European crisis) to 150% (Pacific crisis) of current usage along with an attendant need for water.

NINTH CLAIM FOR RELIEF

UNITED STATES DEPARTMENT OF AGRICULTURE

TOIYABE NATIONAL FOREST

53. Paragraphs 1-52 are incorporated herein as if fully set forth in this paragraph 53.

54. The Toiyabe National Forest extends from the crest of the Sierra Nevada range in California east to the Cambridge Hills in western Nevada. The Forest was created from several forest reserves which were withdrawn from the public domain beginning in 1907.

55. The Toiyabe National Forest is managed under several acts of Congress (hereinafter "Acts") beginning with the Organic Administration Act of 1897, ch. 2, 30 Stat. 34, 16 U.S.C. § 475 (1988) which provides that the purposes of the national forests are, inter alia, to "improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States. . . ." The national forests are also managed under the principles of the Multiple-Use Sustained-Yield Act of 1960, Pub. L. No. 86-517, §§ 1 - 4, 74 Stat. 215, 16 U.S.C. §§ 528-531 (1988) (hereinafter "MUSYA"), which provides that the national forests shall be administered for outdoor recreation, range, timber, watershed and wildlife and fish purposes. Portions of the Toiyabe National Forest are administered pursuant to the Wilderness Act (September 3, 1964) Pub. L. No. 88-577, 78 Stat. 890, as amended, 16 U.S.C. §§ 1131-1136 (1988). Additionally, the National Forests and Public Lands of Nevada Enhancement Act of 1988, Pub. L. No. 100-550, § 5, 102 Stat. 2749, 16 U.S.C. § 460ccc-3 (1988) which transferred lands between the Forest Service and the Bureau of Land Management, "expressly reserves the minimum quantity of water necessary to achieve the primary

purposes for which the lands transferred . . . are withdrawn."

56. The United States is entitled to use the waters from the Walker River, its tributaries, and all other waters located in, on, under, or otherwise appurtenant to the lands comprising the Toiyabe National Forest in the amounts of water necessary to fulfill all purposes for which the reservation was created as recognized under federal or state law. Such lands are entitled to a federally reserved water right with a date of priority as of the date said lands were withdrawn and reserved from the public domain.

57. In connection with paragraph 56, supra, the United States is entitled to an instream flow reserved water rights in the amounts necessary to fulfill the purposes for which the Toiyabe National Forest was established under the Organic Administration Act of 1897. This includes, but is not necessarily limited to, reserved water rights in amounts necessary for the maintenance of the entire reach of each stream channel and all its named and unnamed tributaries lying within the Toiyabe National Forest.

58. The United States also has and is also entitled to both reserved water rights pursuant to the Organic Administration Act and the above noted subsequent Acts as well as water rights under state law, both surface and underground water, both consumptive and non-consumptive, which include but are not necessarily limited to, all aquifers, springs, seeps, rivers, streams, lakes and waters otherwise appurtenant to the Toiyabe National Forest in the amounts necessary to fulfill all present and future administrative purposes on the Toiyabe National Forest as stated in the Acts. The use of these waters include or will include, but is not necessarily limited to: fire management activities, erosion control, revegetation, irrigation, domestic, stockwatering and timber production, which includes but is not limited to, reforestation, road construction and maintenance and silvicultural treatments.

59. The United States also has and is also entitled to reserved water rights pursuant to the Organic Administration Act and its successor Acts in both surface and groundwater which includes, but is not necessarily limited to, all aquifers, springs, seeps, rivers, streams, lakes and waters otherwise appurtenant to Toiyabe National Forest in the amounts necessary for fighting fires in said National Forest.

60. The United States also has and is also entitled to instream flow water rights in the Toiyabe National Forest within the boundaries of the State of Nevada in the amounts of water necessary to fulfill the purpose of providing habitat for fish and wildlife and for recreational opportunities for the public. To the extent these instream flow claims are not available under state law, the United States has federal reserved water rights for the purposes set forth in the MUSYA, supra. In such instance, the priority date is the date of the enactment of the MUSYA, June 12, 1960.

61. The United States also has and is also entitled to riparian rights in the Toiyabe National Forest within the boundaries of the State of California for riparian Forest Service land in the amounts of water necessary to fulfill the purpose of providing watershed management, habitat for fish and wildlife and for recreational opportunities for the public. The priority date for these riparian water rights is the date the United States took title from Mexico under the Treaty of Guadalupe Hidalgo; February 2, 1848. To the extent the above instream flow claims are not available under state law, the United States has federal reserved water rights for the purposes set forth in the MUSYA, supra, with a priority date of June 12, 1960.

62. The United States also has and is also entitled to certain appropriative water rights, including rights that either have been permitted and certificated pursuant to Nevada or California state law, or have applications pending for appropriation before the Nevada State Engineer and before the California Water Resources Control Board. In addition, the United States of America has riparian rights pursuant to California state law.

TENTH CLAIM FOR RELIEF

UNITED STATES MARINE CORPS

MOUNTAIN WARFARE TRAINING CENTER

63. Paragraphs 1-62 are incorporated herein as if fully set forth in this paragraph 63.

64. The United States Marine Corps, Department of the Navy (Marine Corps) operates a training base known as the Mountain Warfare Training Center (hereinafter "MWTC") within the Toiyabe National Forest. The Marine Corps presence in this National Forest dates back to 1951. Pursuant to an agreement with the Forest Service, the Marine Corps uses approximately 45,635 acres of the National Forest for cold weather and mountaineering training and evaluation of prototype

equipment. This training area is the only site available to the Marine Corps for these activities. To support these training operations, the Marine Corps uses a 405-acre tract for a Base Camp, located at the confluence of Silver Creek and the West Walker River. Additionally, the Navy owns a family housing area 25 miles from the Base Camp.

65. The United States is entitled to use waters from the Walker River, its tributaries, and all other waters located in, on, under, or otherwise appurtenant to the lands of the MWTC in the amounts necessary to fulfill all purposes recognized under the federal and state law. Such lands are entitled to a priority date as of the date of the reservation.

66. The Marine Corps is diverting and is also entitled to certain waters pursuant to federal reserved, riparian, overlying, and appropriative water rights, including surface and groundwater sources, which are identified below:

a. Silver Creek:

Water needs of the Base Camp are supplied by surface diversions from Silver Creek and two groundwater wells, noted below. The Marine Corps uses water from Silver Creek based upon a pre-existing Forest Service claim and statement of diversion (USFS No. 9839), which is based on a riparian right, and has a priority date of 1951. Silver Creek surface water, up to 150 gpm, is diverted via a spillway located upstream of the Base Camp.

Silver Creek surface water is used for purposes that include, but are not limited to, training, domestic, industrial, fire protection, irrigation, construction, base hygiene, dust control, equipment and road washing, and future regulatory requirements for fire sprinkler system cross-connection control.

b. Base Camp Wells:

The Marine Corps' Base Camp domestic water demand is served by two groundwater wells, which are located in the Lower Base Camp up-gradient from all the buildings. Water is diverted from these wells up to the following amount:

Well No. 1 - 125 GPM.

Well No. 2 - 127 GPM.

An application for a Base Camp permit for both wells was submitted on May 26, 1993 to the

State of California, Department of Health Services.

c. Family Housing, Coleville, CA:

The Marine Corps also operates a family housing area on a tract approximately 40 acres in size and about 25 miles from the Base Camp. The facility, owned in fee by the U.S. Navy, is located within the West Walker River watershed on the eastern slope of the Sierra Nevada Mountains between the towns of Topaz, Nevada and Coleville, California. More specifically, the housing facility is located on the west side of highway 395, approximately 1.5 miles north of Coleville and about a quarter mile from the river. The housing area's domestic water demand, including domestic irrigation (lawn-watering of family gardens), is served by five wells. Water is diverted from these wells up to the following amount:

Well No. 1 - 21 GPM

Well No. 2 - 27 GPM

Well No. 3 - 14 GPM

Well No. 4 - 21 GPM

Well No. 5 - 200 GPM

The State of California, Department of Health Services, granted a permit for Well Nos. 1 - 4 on December 15, 1986, as water permit # 86-048, and amended that permit on February 11, 1994, to add Well No. 5 to the system.

ELEVENTH CLAIM FOR RELIEF

BUREAU OF LAND MANAGEMENT

67. Paragraphs 1-66 are incorporated herein as if fully set forth in this paragraph 67.

68. Certain lands were reserved from the public domain to establish Public Water Reserves No. 29, No. 70, and No. 107 (hereinafter "PWR"). These reservations were made pursuant to Executive Orders dated June 1, 1915, March 8, 1920 and April 17, 1926, respectively, and are administered by the Department of the Interior through the Bureau of Land Management ("BLM"), except as noted below.

69. The United States is entitled to the use of all of the waters located in, on, under, or

otherwise appurtenant to the lands of the PWRs necessary to fulfill all of the purposes recognized under federal or state law. Such lands, except as noted below, are entitled to a federal reserved water right with a date of priority as of the date of each individual PWR.

70. The United States has and is also entitled to reserved water rights for public springs and water holes in amounts necessary to fulfill the purposes of the PWRs described in paragraph 78. above. The priority dates are the dates the lands were withdrawn from the public domain. These reserved rights include, but are not limited to, the following:

Executive Order 6/1/15 - PWR #29	Reserved Acres	Flow
T. 9 N., R. 28 E., Sec. 17, SW1/4NW1/4, NW1/4SW1/4	80 ac.	1 GPM
T. 11 N., R. 28 E., Sec. 7, (unsurveyed)	125.60 ac.	1 GPM
Executive Order 3/8/20 - PWR #70	**Reserved Acres**	**Flow**
T. 5 N., R. 28 E., Sec. 11, SW1/4NE1/4, SE1/4NW1/4	40 ac.	All
T. 5 N., R. 28 E., Sec. 30, N1/2 of lot 5	approx. 25 ac.	All

The above two PWRs are now located on land administered by the U.S. Forest Service pursuant to the National Forests and Public Lands of Nevada Enhancement Act of 1988, Pub. L. No. 100-550, § 5, 102Stat. 2749, 16 U.S.C. § 460ccc-3 (1988).

Executive Order 4/17/26 - PWR #107	Reserved Acres	Flow
T. 7 N., R. 28 E., Sec. 10, E1/2SE1/4	80 ac.	5 GPM
T. 7 N., R. 28 E., Sec. 11, NW1/4SW1/4	40 ac.	5 GPM
T. 7 N., R. 28 E., Sec. 15, N1/2NE1/4, SW1/4NE1/4, SE1/4NW1/4, NE1/4SW1/4, S1/2SW1/4	280 ac.	3 GPM
T. 7 N., R.28 E., Sec. 21, NE1/4	160 ac.	2 GPM
T. 7 N., R. 28E., Sec. 22, NW1/4NW1/4	40 ac.	2 GPM
T. 9 N., R. 28 E., Sec. 20, N1/2NE1/4	80 ac.	1 GPM

71. The United States has acquired and is therefore entitled to certain water rights which were previously adjudicated and decreed in the C-125 Walker River Decree. These lands were acquired by the United States and are identified as follows:

Legal Description	Water Right Acres
SW1/4SE1/4, Sec. 14; NW1/4 NE1/4, SW1/4 NE1/4, NW1/4 SE1/4, Sec. 23, T 3 N, R 25 E (C-125 Assessment, Roll # 63, Card # 105750)	160.00
Part of Claim #210 SE1/4NE1/4, E1/2SE1/4, NE1/4 SW1/4, S1/2 SW1/4, Section 23; NE1/4NE1/4, NW1/4NW1/4, Sec. 26; SW1/4SW1/4, Section 20; NW1/4 NW1/4, Section 29, T 3 N, R 25 E. (C-125 Assessment, Roll # 64, Card # 105751)	400.00

72. The United States also has and is also entitled to riparian water rights under California state law for riparian lands managed by the BLM. The priority date for lands which the United States has held continuously since taking title from Mexico under the Treaty of Guadalupe Hidalgo is February 2, 1848. In the case of acquired land, the priority date is the date the land was patented out of the public domain. The water is used for the purpose of sustaining the existing riparian vegetation and providing habitat for fish and wildlife. The above rights are appurtenant to the following stream reaches:

Virginia Creek and tributaries

Public Land
T 3 N., R 25 E.: Sections 1, 2, 3, 9, 10, 11, 12, 13, 14, 15

T 4 N, R 25 E: Sections 35, 34, 27, 26, 25

Acquired land: T 3 N, R 25 E: Sections 21, 22, 23, 24, 25, 26, 27, 34, 35

Clear Water Creek and tributaries

Acquired Land
T 3 N, R 25 E: Section 12; T 4 N, R 26 E: Section 33

T 3 N, R 26 E: Sections 5, 6, 7, 18

Public Land
T 3 N, R 25 E: Section 1, 12

(102)

T 4 N, R 25 E: Section 24

T 4 N, R 26 E: Sections 31, 32, 34, 35, 30, 28, 27, 10, 14, 16, 19, 21, 22, 23

Aurora Canyon and tributaries - Rock Creek and other unnamed creeks

Public Land
T 4 N, R 25 E: Sections 1, 12, 10, 11

T 4 N, R 26 E: Sections 4, 3

T 5 N, R 25 E: Sections 35, 27, 26, 25, 24, 23, 14, 15, 12, 11, 10, 2

T 5 N, R 26 E: Sections 31, 32, 33, 29, 22, 21, 20, 19, 18, 17, 7, 8

Rough Creek and tributaries

Public Land
T 4 N, R 26 E: Sections 1, 2, 3

T 4 N, R 27 E: Section 6

T 5 N, R 26 E: Sections 35, 34, 26, 25, 24, 23, 22, 12, 13, 14

T 5 N, R 26 E: Sections 12, 11, 10, 9, 1, 2, 3, 4

T 5 N, R 27 E: Sections 31, 32, 33, 30, 29, 28, 19, 20, 18, 17, 7, 8, 9, 6

T 6 N, R 26 E: Sections 32, 33, 34, 35, 36

Including Portions of Bodie, Matastra and Rough Creeks that originate in California and flow into Nevada.

Bodie Creek tributaries
T 4 N, R 26 E: Section 12
T 4 N, R 27 E: Sections 1, 2, 3, 4, 7, 8, 9, 10, 11,12, 15, 16 and 17
T 5 N, R 27 E: Sections 25, 26 and 35.

Green Creek

T 4 N, R 25 E: Section 33

Topaz Lake Area

Slinkard Creek and tributaries

T 9 N, R 22 E: Sections 4, 5, 6, 7, 8, 9, 10, 11, 14, 18, 19, 22, 23, 26 and 30

Mail Creek and tributaries

T 8 N, R 23 E: Sections 29, 31 and 32
T 8 N, R 22 E: Sections 1, 12, 14, 23 and 26.

73. The United States is also entitled to certain appropriative water rights, including rights

that either have been permitted and certificated pursuant to Nevada or California state law, or have applications pending for appropriation before the Nevada State Engineer and before the California Water Resources Control Board. In addition, the United States has riparian rights pursuant to California state law.

WHEREFORE, the United States of America, in its first amended counterclaim on its own behalf and for the use and benefit of the Walker River Paiute Tribe, the Yerington Paiute Tribe, the Bridgeport Paiute Indian Colony and individual Indians owning allotments in the Walker River Basin prays that this court enter judgment and decree as follows:

(1) Quieting the title of the United States to the use in proper priority of the above-claimed waters rights on its own behalf and for the use and benefit of the Walker River Paiute Tribe, the Yerington Paiute Tribe, the Bridgeport Paiute Indian Colony and individual Indians owning allotments in the Walker River Basin.

(2) Declaring that the United States, on its own behalf and for the use and benefit of the Walker River Paiute Tribe, the Yerington Paiute Tribe, the Bridgeport Paiute Indian Colony and individual Indians owning allotments in the Walker River Basin, are entitled to the exclusive use, occupancy and right to the quiet enjoyment of such water rights in their proper priority.

(3) Declaring that the defendants and counterdefendants have no right, title or other interest in or to the use of such water rights.

(4) Preliminarily and permanently enjoining the defendants and counterdefendants from asserting any adverse rights, title or other interest in or to such water rights.

(5) Grant such other and further relief as the Court deems proper.

DONE this day of 30th day of July, 1997.

Respectfully submitted,

LOIS SCHIFFER

Assistant Attorney General
United States Department of Justice
Environment & Natural Resources Div.

(104)

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(185)

CERTIFICATE OF SERVICE

I hereby certify that I have this 30th day of July, 1997, served a true copy of the foregoing **FIRST AMENDED COUNTERCLAIM OF THE UNITED STATES OF AMERICA,** by placing same in the U. S. mails. postage prepaid, addressed as follows:

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Deirdre Hills

Statement of Assemblyman Neal Smith

AFTER EXTENSIVE HEARINGS, THE LEGISLATURE ADOPTED ASSEMBLY JOINT RESOLUTION NO. 7, WHICH EXPRESSES OUTRAGE OVER THE PROCEDURES FOLLOWED BY THE UNITED STATES BUREAU OF LAND MANAGEMENT IN ADOPTING THE NEW RULE. THE RESOLUTION OUTLINES THE PROCEDURAL ISSUES AND URGES THE SECRETARY OF THE INTERIOR TO SUSPEND OR WITHDRAW THE RULE.

WHEREAS, The United States Bureau of Land Management proposed on July 11, 1991, to amend its policies governing bonding requirements for reclamation of hard-rock mining operations on public lands, as set forth in the regulations governing surface management in Subpart 3809 of Part 3800 of Title 43 of the Code of Federal Regulations; and

WHEREAS, The Bureau of Land Management recently adopted those proposed regulations with the publication of a final rule on February 28, 1997, approximately 5 1/2 years later; and

WHEREAS, The newly amended regulation takes effect on March 31, 1997, and contains new policies that were not a part of the policies proposed on July 11, 1991, including requirements for the certification of reclamation cost estimates by a third-party professional engineer; and

WHEREAS, The general public was not apprised of the substance of the final version of the regulation and the significant issues involved, and therefore had no opportunity to comment on the new policies included in the final rule, in violation of the federal Administrative Procedures Act (5 U.S.C. § 553); and

WHEREAS, The final rule will have a negative impact on large and small miners, on their suppliers and contractors and on the economy and residents of the State of Nevada; and

WHEREAS, Without any opportunity for comment and with no increase in federal funding, the final rule will substantially increase the work load for agencies in the State of Nevada that administer programs in the areas of environmental protection and minerals; and

WHEREAS, The final rule could have a severe impact on the administration of the program providing for the pooling of reclamation performance bonds established in this state pursuant to chapter 519A of the *Nevada Revised Statutes*; and

WHEREAS, The final rule would place the Bureau of Land Management in the position of enforcing criteria for water quality, a task that rightfully belongs to the State Department of Conservation and Natural Resources pursuant to the *Nevada Revised Statutes* and the federal Clean Water Act; and

WHEREAS, The Bureau of Land Management has provided no documentation or evidence of problems regarding the failure of miners to carry out required reclamation efforts in this state; and

WHEREAS, The State of Nevada has been a strong supporter of mining reclamation programs, and the Bureau of Land Management itself acknowledges that this state is a leader in such programs; and

WHEREAS, The Bureau of Land Management has initiated a complete regulatory review of the regulations governing surface management set forth

 ASR 7

in Subpart 3809 of Part 3800 of Title 43 of the Code of Federal Regulations but has separated the policies regarding bonding requirements for reclamation of hard-rock mining operations on public lands from that review without explanation; now, therefore, be it

RESOLVED BY THE ASSEMBLY AND SENATE OF THE STATE OF NEVADA, JOINTLY, That the members of the 69th session of the Nevada Legislature are outraged by the procedures followed by the Bureau of Land Management in adopting the final rule on bonding requirements for reclamation of hard-rock mining operations on public lands, especially because those procedures violate the guarantee of due process in the United States Constitution; and be it further

RESOLVED, That the members of the 69th session of the Nevada Legislature urge the Secretary of the Interior to suspend or withdraw the final rule on bonding requirements for reclamation of hard-rock mining operations on public lands and to include the subject matter in the review, which is already in progress, of Subpart 3809 of Part 3800 of Title 43 of the Code of Federal Regulations; and be it further

RESOLVED, That the Chief Clerk of the Assembly prepare and transmit a copy of this resolution to the Secretary of the Interior, the Vice President of the United States as the presiding officer of the Senate, the Speaker of the House of Representatives and each member of the Nevada Congressional Delegation; and be it further

RESOLVED, That this resolution becomes effective upon passage and approval.

AS MANY ARE AWARE, THE RULE WAS NOT WITHDRAWN, AND TOOK EFFECT ON MARCH 31, 1997. NOT HAVING BEEN SUCCESSFUL IN GETTING THE RULE MODIFIED, THE LEGISLATURE RECOGNIZED THE NEED TO ASSIST MINERS IN COMPLYING WITH ITS REQUIREMENTS. THUS, **SENATE BILL 440** WAS ENACTED. THIS MEASURE EXPANDS NEVADA'S EXISTING PROGRAM THROUGH WHICH MINING OPERATIONS AND EXPLORATION PROJECTS CAN OBTAIN PERFORMANCE BONDS TO ENSURE RECLAMATION OF THEIR MINE SITES. UNDER EXISTING LAW, OPERATIONS THAT DISTURB FIVE ACRES OF LAND OR MORE IN A CALENDAR YEAR ARE ELIGIBLE TO REQUEST A BOND THROUGH THE STATE BOND POOL. SENATE BILL 440 EXPANDS THIS ELIGIBILITY TO INCLUDE OPERATIONS THAT DISTURB LESS THAN FIVE ACRES PER YEAR, AS REQUIRED BY THE FEDERAL REGULATION, AS WELL AS PROJECTS OF ANY SIZE THAT MUST POST A RECLAMATION BOND PURSUANT TO COUNTY REQUIREMENTS.

Section 1. NRS 519A.290 is hereby amended to read as follows:

519A.290 1. The division of minerals of the department of business and industry shall develop and administer a program providing for the pooling of reclamation performance bonds to assist [operators to meet] :

(a) An operator to comply with the bonding and surety requirements of this chapter [.] ;

(b) A person who engages in small mining operations or small exploration projects to comply with the requirements for financial guarantees set forth in the regulations adopted pursuant to 43 U.S.C. § 1740; or

(c) A person who engages in mining operations, small mining operations, exploration projects or small exploration projects to comply with the bonding requirements imposed pursuant to an ordinance adopted by a county in this state.

2. The program must:

(a) Be designed to reduce the financial burden of obtaining a reclamation performance bond for *mining operations,* small mining operations [;] , *exploration projects or small exploration projects;*

(b) Require each operator *or any other person* who participates in the program to [pay] :

(1) Pay an amount into the pool each year which annually is actuarially determined to enable the program to be self-sustaining;

(2) Execute an agreement of indemnity on a form provided by the division of minerals; and

(3) Provide collateral or other security approved by the administrator of the division of minerals if the administrator considers it necessary to ensure against the forfeiture of a reclamation performance bond;

(c) Use the money in the pool to cover the bonded liability of the operators *and any other persons* who participate in the program;

(d) Provide a limit on the total bonded liability of any person [that] *who* may be covered under the program; and

(e) Provide conditions for the release *and forfeiture* of bonds . [and bond forfeiture.

2.] *3.* The division of minerals shall adopt regulations relating to the development and administration of the program.

[3. In the event that an operator's]

4. If the reclamation performance bond *of an operator or any other person who participates in the program* is forfeited, the attorney general may bring an action in the name of the State of Nevada in any court of competent jurisdiction against the operator *or such other person* to recover the costs incurred by the program in the reclamation of the land.

Sec. 2. This act becomes effective upon passage and approval.

Name: Leo M. Drozdoff, P.E.

Title: Bureau Chief, Mining Regulation and Reclamation

Organization: State of Nevada
Department of Conservation and Natural Resources
Nevada Division of Environmental Protection

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Mining Regulation and Reclamation
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STATE OF NEVADA
BOB MILLER
Governor

Waste Management
Corrective Actions
Federal Facilities
Air Quality
Water Quality Planning
Facsimile 687-6396

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
333 W. Nye Lane, Room 138
Carson City, Nevada 89706-0851

September 19, 1997

Ms. Dawn Criste
Subcommittee Clerk
1626 Longworth House Office Building
Washington, D.C. 20515

Re: Surface Management of Mining Activities

Dear Ms. Criste:

The Nevada Division of Environmental Protection (NDEP) of the Nevada Department of Conservation and Natural Resources appreciates the opportunity to provide testimony to the U.S. House of Representatives, Subcommittee on Energy and Mineral Resources regarding the regulatory framework associated with hardrock mining activities on public lands. We intend to give the Subcommittee information in four areas. First we will briefly explain Nevada's approach to regulate surface disturbances conducted by mining operations. Second, we will describe our existing relationships with federal land management agencies in Nevada, pertaining to mining issues . Third, we will voice our displeasure with the requirements associated with the Bureau of Land Management's (BLM) new 3809 bonding rules as well as the manner in which they were finalized. Lastly, we wish to convey our concerns associated with the BLM's ongoing review of the entire 3809 regulations.

Nevada Regulatory Approach

Mining operations must comply with many federal, state and local laws and regulations which are administered by a variety of agencies. When dealing with surface disturbances at mine facilities, operators primarily deal with the Bureau of Mining Regulation and Reclamation within the NDEP. The Bureau does not replicate any federal regulations but rather protects the natural resources of the state pursuant to state laws and regulations. Nevada's consistent approach of administering our state regulatory programs and meeting our responsibilities pursuant to federally delegated environmental programs is very effective.

Nevada gold mines produce 70% of this nation's gold. This production figure, when combined with our environmental record supports our belief that the NDEP already possesses the tools it needs to regulate the mining industry.

Existing Relationship with Federal Land Management Agencies

Currently, the NDEP has a good relationship with the BLM State and District offices in Nevada as well as the U.S. Forest Service (USFS) offices in this state. We have an MOU with both agencies to integrate approaches and make the most of combined resources. The arrangement helps avoid duplicative requirements and gives the regulated community greater confidence in understanding requirements. NDEP has demonstrated its genuine commitment to a strong state/federal relationship by funding a BLM employee to work in both agencies and serve as a liaison. The liaison will improve communication and allow all agencies to identify potential gaps in coverage of regulation and reduce conflicting or duplicative requirements. This good state/federal relationship between the NDEP, BLM and USFS could indeed be negatively impacted by new rules that are not well conceived. Any changes to the 3809 regulations should seek to enhance not jeopardize the partnerships and relationships that have been developed.

New Bonding Rule

While NDEP supports bonding of all mining and exploration operations on public land, the State of Nevada has objected to the inadequate public process used to implement the bonding regulations published in the February 28, 1997 Federal Register. The final rules as published have the ability to negatively impact Nevada's regulatory programs. Additionally, we believe the requirement for a third party registered professional engineer to review reclamation calculations is unnecessarily burdensome. Lastly, state programs effectively establish water quality standards and effluent discharge requirements, therefore, they should not be associated with federal reclamation bond release criteria. This criteria creates new environmental authorities for BLM which we do not believe are appropriate. Based on these concerns, BLM should consider necessary changes to improve the Reclamation Bonding Rules as part of the review of 3809 regulations.

3809 Regulation Review

The State of Nevada has participated in the BLM's efforts to review and amend the regulations for surface management for mining and exploration activities on public lands. We have attended scoping meetings and have met with BLM and Department of Interior officials through meetings with the Western Governor's Association (WGA). Other than Secretary Bruce Babbitt's January 6, 1997 memorandum initiating the 3809 review process we are unaware of the need for this process. In general, the NDEP believes the existing regulations work well and we have not identified any significant in-field problems caused by shortcomings in these regulations. The State of Nevada takes this process very seriously as demonstrated by the June 18, 1997 letter from Governor Bob Miller to the BLM. His letter has been attached for your review.

We very much appreciate the efforts taken by the House Subcommittee on Energy and Mineral Resources to receive testimony on this very important issue. If we may be of further assistance, please do not hesitate to contact us.

Sincerely,

Leo M. Drozdoff, P.E.
Bureau Chief
Mining Regulation and Reclamation

LMD/btc
Attachment
cc: L. H. Dodgion
Allen Biaggi

STATE OF NEVADA
EXECUTIVE CHAMBER
Capitol Complex
Carson City, Nevada 89710

BOB MILLER
Governor

TELEPHONE
(702) 687-5670
Fax (702) 687-5354

June 18, 1997

Mr. Paul McNutt
Bureau of Land Management
P.O. Box 12000
Reno, NV 89520-0006

Dear Mr. McNutt:

The state of Nevada has participated in the Bureau of Land Management's (BLM) efforts to review and amend the regulations for surface management for mining and exploration activities on public lands. This issue is important to Nevada; it is one in which we will remain engaged.

As you are aware, mining is a major industry in the state with significant economic impact. Nevada is considered a leader in environmental regulation of mining and our regulatory programs have been emulated by other states and, indeed, other nations. I urge the BLM to focus carefully on what is working quite well in mining regulation in Nevada.

The state opposes changes in the regulations that would duplicate efforts and costs. There should be flexible standards which can recognize appropriate state standards and be adapted to specific sites. The BLM should retain provisions that allow rapid approval of exploration activities and low-impact small-scale mining activities. In addition, any modifications to the bonding regulations must be addressed in the 3809 rewrite effort. Finally, it is important that the BLM not move into areas of environmental regulation that would duplicate or attempt to supersede existing state authority delegated under federal law such as the Clean Air Act and the Clean Water Act, or state law pertaining to water quantity and quality.

Enclosed are the more specific comments by the Nevada Division of Minerals and the Division of Environmental Protection. Please consider all of these as comments on behalf of the state of Nevada.

Sincerely,

BOB MILLER
Governor

Enclosures
cc: Ann Morgan, State Director, BLM
Julie Butler, Nevada State Clearinghouse

PETER G. MORROS, Director
L.H. BODGION, Administrator
(702) 687-4670
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STATE OF NEVADA
BOB MILLER
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Waste Management
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DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
333 W. Nye Lane, Room 138
Carson City, Nevada 89706-0866

June 16, 1997

Mr. Paul McNutt
Bureau of Land Management
P.O. Box 12000
Reno, NV 89520-0006

Re: 3809 Comments

Dear Mr. McNutt:

The Nevada Division of Environmental Protection (NDEP) of the Nevada Department of Conservation and Natural Resources appreciates the opportunity to provide comments to the BLM regarding the Bureau's 3809 rulemaking. The NDEP understands BLM's desire to review its regulations in order to assess their effectiveness. In general NDEP believes the existing regulations work well and we have not identified any significant, in-field problems caused by shortcomings in these regulations. However, we believe the scoping process will give BLM the opportunity to communicate with states with regulatory programs, such as Nevada's, to avoid creating duplicative and conflicting rules.

At the May 20, 1997 scoping meeting held in Reno, Nevada attended by NDEP officials, the BLM suggested eight potential topics for review. We know that some of these topics were raised in Secretary Babbitt's January 6, 1997 memorandum initiating the 3809 review process. Other than that directive, NDEP is not aware of why these topics were advanced, nor are we aware of why the process appears to be limited to these areas. Nonetheless, the following are NDEP's specific comments pertaining to the topics identified at the scoping meeting.

1. **Unnecessary and Undue Degradation**

We believe there may be a tendency in a regulatory review process to craft new regulations if problems are perceived without thoroughly examining the existing regulatory framework. The current 3809 definition of unnecessary and undue is quite comprehensive, as it relies on compliance with "applicable environmental protection statutes." Therefore, if any

federal, state or local mining regulatory requirement is not met BLM could consider that activity as unnecessary or undue degradation. In this current 3809 rewrite, BLM should strive to avoid creating overlapping, confusing, conflicting and otherwise burdensome new requirements if better interpretation and implementation of existing authorities is really what is appropriate. We believe that changes to the definition are not necessary.

2. **Performance Standards**

The process for evaluating potential changes to the 3809 regulations should begin with an identification of desired outcomes and compare these outcomes with what is occurring as a result of the existing regulatory program. Writing specific standards, mandating technologies and adopting processes is counter-productive to achieving environmental protection, in that they stifle innovative approaches and generally negatively impact regulatory agencies whose charge moves from protecting the environment to monitoring compliance with non-essential and peripheral requirements.

Reclamation performance standards should be broad in scope and defer to state programs whenever possible. States have developed standards for reclamation that take into account the ecologic, climatic, geographic and geologic site-specific issues which are essential to a successful regulatory program.

3. **5 Acre Threshold for Plans of Operations**

In general NDEP supports notice level activities. Due to the large number of existing notice level activities in Nevada, this agency is concerned that requiring plan of operations for small disturbances will detract from BLM's ability to address pressing needs, because it will be forced to spend time on non-critical issues. Additionally, as Nevada's reclamation statutes directly reference 43CFR Subpart 3809, any change in notice level criteria could have significant adverse impacts to our state programs.

4. **State Government Coordination**

Nevada is responsible for approximately 70% of this Country's gold production. Nevada's regulatory programs have essentially been used as a template in other states and countries, and have been used by the World Bank as standards in countries where mining regulations do not exist. As such, BLM should devote significant resources to evaluate Nevada's mining statutes, regulations and policies. Enclosed is a copy of "Nevada Mining Regulatory Programs" which has previously been provided to BLM's Bob Anderson and Tom Leshendock.

This 3809 review process is a good opportunity for BLM to take a proactive approach to improve BLM/state coordination. Many states, including Nevada, have MOU's with BLM to integrate their approaches and make the most of combined resources. This arrangement helps avoid duplicative requirements and gives the regulated community greater confidence in understanding requirements. To demonstrate Nevada's commitment to a strong state/federal relationship, NDEP will actually fund a federal employee to work in both agencies and serve as a liaison. The liaison will improve communication and allow both agencies to identify potential gaps in coverage of regulation and reduce conflicting or duplicative requirements. If problems are found during this scoping effort, BLM should consider methods such as liaison positions to strengthen state/federal relationships.

Finally, the existing 3809 regulations properly recognize State programs for both federally delegated environmental programs (Clean Air, Clean Water, etc.) and state law (groundwater protection, reclamation, etc.). Nevada is a fully delegated state and is a leader in groundwater protection and reclamation. The proposed 3809 rulemaking should not be a backdoor attempt to carve out new environmental authorities that duplicate or attempt to supersede federally delegated and/or state legislated environmental authority. It is important to remember that the Federal Land Policy and Management Act, as its very name implies, is a land management act.

5. **Time Frames for Review of Notices and Plans of Operations**

Time frames are absolutely necessary to ensure timely permitting processes and achieve accountability and must be included in BLM's regulations. Most, if not all states, including Nevada, have permit review time frames. A review of these time frames may be a benefit to the BLM. The notice level time frames should be established to allow the BLM to review the application. It is our perception that something in the neighborhood of 15 days is appropriate. The current plan of operations time frame of 90 days is not at all realistic, because the NEPA process establishes its own time frames which greatly exceed 90 days. NDEP would support a change to the plan of operations time frame in order to address NEPA requirements, provided that selected time frames are reasonable and do not impact the well established time frames that currently exist in state programs.

6. **Penalties**

Existing penalties under state and federal law are sufficient.

7. Casual Use

The current definition of casual use is sufficient and is important to retain for a variety of reasons. However, the definition could be improved by providing additional, current examples of what is considered casual use, such as prospecting or dredging.

8. Bonding

While NDEP supports bonding of all mining and exploration operations on public land, the State of Nevada has objected to the inadequate public process used to implement the bonding regulations published in the February 28, 1997 Federal Register. The final rules as published have the ability to negatively impact Nevada's regulatory programs. Additionally, we believe the requirement for a third party registered professional engineer to review reclamation calculations is unnecessarily burdensome. Lastly, state programs effectively establish water quality standards and effluent discharge requirements, therefore, they should not be associated with federal reclamation bond release criteria. This criteria creates new environmental liabilities for BLM which we do not believe are appropriate. Based on these concerns, BLM should consider necessary changes to improve the Reclamation Bonding Rules as part of the review of 3809 regulations.

We appreciate the opportunity to provide these comments and look forward to continuing our professional relationship with BLM through this process.

Sincerely,

Leo M. Drozdoff, P.E.
Bureau Chief
Mining Regulation and Reclamation

LMD/btc
Enclosure

JB MILLER
Governor

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DIVISION OF MINERALS
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CLAUDIA K. CORMIER
Director

RUSSELL A. FIELDS
Administrator

June 17, 1997

Paul McNutt
Bureau of Land Management
P.O. Box 12000
Reno, NV 89520-0006

Dear Mr. McNutt:

The Nevada Division of Minerals of the Department of Business and Industry appreciates the opportunity to provide input to the BLM regarding the surface mining regulations under 43 C.F.R. Subpart 3809.

The existing 3809 regulations have stood the test of time, are understood by those who use them, and are generally working quite well. Following are our comments:

Review of Existing Situation Required - the Rule Making Process

The BLM needs to explain what, if anything, is wrong with the existing regulations, and what, if anything, needs to be fixed. The 3809 regulations currently require compliance with all other federal and state environmental and reclamation laws. The BLM needs to identify any shortfalls in those laws prior to imposing new requirements of their own. We favor looking for any gaps in the current overall regulatory scheme, then focusing on those gaps. Finally, if there are gaps, states should have the opportunity to address them with state regulations.

The Scoping Sessions BLM held during the month of May did not provide the public with the opportunity to react to alternatives and issues in a detailed description of BLM's proposal. Now that the public meetings have presumably raised issues and identified alternatives, another opportunity for scoping should be offered to the public to properly complete the NEPA process. We would request that considerable weight be given to the comments from Nevada, by far the largest center of BLM mining regulatory activity.

State Role in Regulation of Environmental Quality

Nevada's regulatory oversight of mining is protective of the environment and yet flexible enough to allow for innovative techniques to be used. Regulations generally focus on the end result and are not overly prescriptive in how to achieve that result. The bottom line for mining regulation is to protect other resources and provide for productive post-mining uses of land while ensuring that the waters of the state are not degraded. Nevada has a history of successful reclamation projects and mining regulation of which we are very proud. We believe BLM should adhere to these same principles as it considers changes to the 3809 regulations.

All states which regulate mining have reclamation programs in place to deal with hard rock mining. Further, states have primacy for environmental regulation delegated under authority of Congress by EPA. States will oppose any new proposals to give the Bureau of Land Management environmental regulatory authority or duplicate existing state primacy programs. States recognize that the BLM has responsibilities to manage the surface impacts of mining on public lands. We believe, however, that BLM coordination and cooperation with state programs that are already working effectively should be a primary goal of any change to the 3809 regulations.

Scoping Meeting Topics

The BLM suggested 8 topic areas in the scoping meetings. We are uncertain how these topics were identified but, nevertheless, they were referred to in the Secretary's January 6, 1997 memorandum which initiated this re-write process. Following are our specific comments on those topics.

1. **Unnecessary or Undue Degradation:** The existing definition in 3809 is sensitive to changes in both Federal and State laws governing mining. While it does not list specific performance standards, it relies on "applicable environmental protection statutes." It also provides for specific levels of protection or reclamation in special areas authorized by Congress.

We believe that changes to the definition are unnecessary. However, if standards for surface protection are to be included, they should be based on outcomes rather than a specific technology to reach an outcome. Best Available Technology as a standard has the inherent problems of limiting innovation and the trying of new, perhaps better, approaches and fails to consider economic practicality.

2. **Performance Standards:** Reclamation performance standards should be broad in nature and defer to state programs whenever possible. States have developed standards for reclamation that take into consideration the ecologic, climatic, geographic

and geologic site specific issues which are essential to a successful regulatory program. A repeated theme at the scoping session in Reno on May 20, with which we agree, was "do not attempt to create one-size fits all performance standards." The best approach would be to identify broad criteria, such as leaving waste rock slopes in a stable condition, then defer to state requirements for any specific standards.

3. **5 Acre Threshold for Plans of Operations:** The 5-acre threshold for plans of operations should be retained for, at a minimum, exploration projects. These projects generally do not involve chemicals harmful to the environment and reclamation is usually readily accomplished. Further, requiring a plan of operation for these small disturbances would place a tremendous additional and, we believe, unnecessary workload on the BLM's staff. Consideration should be given to allowing certain types of mining operations to also fall under a work notice. Mines that do not use chemicals, are not below the water table and are not in an otherwise sensitive area should be able to conduct activities under a notice.

4. **State Government Coordination:** The existing 3809 regulations at 3809.2-2 and 3809.3.1 properly recognize State programs for both delegated environmental programs (Clean Air and Clean Water Acts) and state law (reclamation groundwater protection). The BLM should not write new rules that would duplicate the efforts of state regulators. Further, 3809.3-1 provides for agreements for a joint Federal-State program for administration and enforcement. We do not believe changes to these sections are necessary.

5. **Time Frames for Review of Notices and Plans of Operations:** Time frames are required to ensure a timely permitting process and must be included in the regulations. Notice level operations, especially as we have suggested in number 3, should under normal circumstances require no more than 15 days, however, we agree BLM needs adequate time to review the notices. BLM should make a proposal with justification if a longer time frame than currently allowed is needed. In any case, the current process of assumption of approval if the applicant does not hear back from BLM seems to be most efficient. The current plan of operations time frame of 90 days is not realistic because the NEPA process requires its own time frames which are considerably longer than the 90 days. We would support a change to the plan of operations time frame which recognizes that NEPA requirements introduce more time into the process. However, the time frame selected should be reasonable to both the applicant and to the BLM.

6. **Penalties:** Existing penalties under State and Federal law are sufficient.

7. **Casual Use:** The current definition of casual use is sufficient and is important to retain for prospecting purposes. The definition, however, could be improved by providing additional examples of what is considered casual use. These additions would help provide guidance and clarification to the definition which would help both the regulated community and the BLM.

8. **Bonding:** While we support bonding of all mining and exploration operations on public land, the State of Nevada has objected to the inadequate public process used to arrive at the bonding regulations as published in the February 28, 1997 Federal Register. Further, we believe the requirement for a third party registered professional engineer to sign off on reclamation calculations is unnecessarily burdensome for small miners and exploration operators. BLM should be able to provide simple standards for these calculations which could be done by the operator without employing a professional engineer. We also believe that State programs will effectively deal with "effluent discharged from the area" and that such should not be subject to a Federal reclamation bond requirement.

We appreciate the opportunity to provide these comments and look forward to continuing to work with the BLM in this process.

Sincerely,

Russ Fields

RF:lw

Gregory A. Blaylock
62606 Hurricane Creek Rd.
Joseph, OR 97846

September 29, 1997

The Honorable Barbara Cubin, Chairwoman
Energy and Mineral Resources Subcommittee
1626 LHOB
Washington, DC 20515

Re: Regulatory permitting of hardrock mining operations on public lands.

Dear Madam Chairwoman,

I was unable to attend your oversight hearing held in Elko, Nevada on September 22, 1997, but would like to submit written comments as part of the official testimony in the Congressional Record. The issue of regulatory permitting of hardrock mining operations on public lands concerns me as a responsible professional mining engineer who has worked in the domestic and international mining industry for 13 years.

From first hand experience I can say existing regulatory permitting requirements for the mining industry are already among the toughest, most stringent, requirements for the permitting of any industry in the United States. I need not tell you how many different permits must be obtained before bringing a new mine into production, expanding an existing operation, or deviating in any way from approved Plans of Operations, Environmental Assessments, or Environmental Impact Statements. More often than not many of these permits are redundant when Federal, State and County requirements overlap.

It is good to have an efficient regulatory approval process which requires industry to assess environmental impacts on public lands. The same approval process, however, becomes counterproductive when a Federal Lead Agency is unable to clearly define regulatory requirements and a time frame to obtain approval. Once the regulatory requirements and time frame are understood by all parties, all parties should proceed with their respective duties to address permitting details, thus enabling the mining operation to proceed in a timely fashion. Industry is always ready to do their part, and assist in the preparation of Environmental Assessments or Environmental Impact Statements, but in my experience Federal Lead Agencies are kept from completing their role for several reasons:

1) **Lead Agency personnel have no business interpreting the laws which apply to permitting a mining operation.** Their function is to realize what is required to permit an operation on public lands, inform all parties concerned what is required, and ensure these requirements are met in an objective fashion. Unfortunately, the subjective interpretation of laws often produces unnecessary requirements which change as the approval process proceeds.

2) **Undue influence from environmental groups who pressure Federal Agencies to adopt more stringent guidelines than practically necessary.** This influence takes form in lawsuits or other gridlock techniques designed to stall the approval process for as long as it takes to kill it. Most environmental groups want zero mining activity, period, on public lands. Such open animosity from environmental groups towards the mining industry should, in all fairness, disqualify them from participating in the approval process once the public comment and review periods are finished. These groups certainly have the right to participate in the public comment and review process, but not to subsequently influence the Lead Agency.

3) **Lead Agency personnel are often not qualified to administer an approval process, so they rely on Departmental Agendas which are usually politically motivated and don't have the best interests of the American Public in mind.** Undue bias is therefore introduced into the approval process because an elected or appointed public official, uneducated in the business of mining, steers a department on a course which benefits the official politically.

These reasons stated above come from my personal experience and observations. Most of my mining experience has been international where approving mines is the function of a Minister of Mines, or someone else knowledgeable on the mining business. Environmental guidelines are always a part of getting approval in these countries but never are they used as a primary weapon to kill a project. Most projects get approval after political or personal agendas are satisfied. My main frustration was a slow approval process because of a bureaucrat with his hand held out.

When I returned to the United States I was looking forward to a Governmental Agency who would be able to administer an approval process objectively, and make a decision based on merit. A decision in which political or personal agendas played no part. Sadly, I have been disappointed. It is good to have an efficient regulatory approval process which requires industry to assess environmental impacts on public lands. It is not good to have political and personal agendas or opinions influencing decision making on public lands.

A thriving, responsible mining industry is essential to our national security and to maintain our standard of living. The interests of the American Public are best served when our mineral demands are met within the United States. A viable domestic mining industry provides not only minerals, it also provides family wage jobs and an industrial tax base in an environmentally responsible manner. If the United States forces the mining industry off shore we have lost the family wage income opportunity, and in a global sense the environment is none the better. From a National Security standpoint we are at risk due to our increased reliance on mineral production from other countries and our inability to provide for our own needs.

Respectfully Submitted,

Gregory A. Blaylock

Women's Mining Coalition
A Grassroots Coalition Supporting Environmentally Responsible Mining

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WRITTEN TESTIMONY OF THE WOMEN'S MINING COALITION
Submitted for the Record
House Committee on Resources - Energy and Mineral Resources Subcommittee
September 22, 1997 - Elko, Nevada Field Hearing

INTRODUCTION

The Women's Mining Coalition (WMC) is a grassroots organization of women involved with the hard rock mining industry. Our membership is comprised of women working in many facets of the mining industry including geology and exploration, engineering, business and management, mining and heavy equipment operation, equipment manufacturing, and sales of goods and services to the mining industry. We have over 437 members located from coast to coast in 36 different states.

The WMC is keenly interested in the Department of Interior, Bureau of Land Management's (BLM's) current efforts to revise the 43 C.F.R. Subpart 3809 regulations ("the 3809 regulations") because many of our members work at mines located on BLM-administered lands, and a number of our members work for companies that provide equipment, goods and services to mines on BLM lands. Based on first-hand experience, many WMC members can attest to the success which the 3809 regulations have had in promoting environmentally responsible mining and effective reclamation of mines on BLM-administered lands.

The WMC welcomes this opportunity to provide comments to the BLM regarding the agency's proposal to revise the 3809 regulations. We are responding to the issues raised in the March 1997 materials from the BLM's 3809 Task Force that outline issues to be considered during the proposed scoping and revision of the 3809 regulations, and to comments made by Secretary Babbitt in his January 6, 1997 memorandum to the Assistant Secretary, Land & Minerals and the Acting Director, BLM.

In developing our comments, we have relied on our members' experience in working on mining and mineral exploration projects on BLM lands, and have given special consideration to the following:

- The strength, comprehensive nature, and proven track record of the 3809 regulations;
- The level of environmental protection and the reclamation achieved under the current regulatory framework applicable to mining, including the 3809 regulations;
- The lack of any compelling justification or need identified by the BLM that would warrant modification of the 3809 regulations;
- The shortcomings of the BLM's scoping efforts and the inappropriateness of the BLM's plans for concurrent development of both the Draft Environmental Impact Statement (DEIS) and the revised 3809 regulations;

- The alternatives and issues we feel need to be evaluated in the DEIS; and
- Our concerns that the effort to revise the 3809 regulations not be misused as a political process.

COMMENTS ON THE ISSUES RAISED BY SECRETARY BABBITT AND THE 3809 TASK FORCE SCOPING MATERIALS

Definition of Unnecessary or Undue Degradation

Many WMC members have direct experience in working under the 3809 regulations and implementing measures at the mine sites at which they work to prevent unnecessary or undue degradation. It is our collective experience that the unnecessary or undue degradation clause of the 3809 regulations has proven to be a comprehensive mechanism that effectively mandates environmental protection. Given the level of environmental protection required by this clause, the impressive track record of the industry's compliance with this standard, and the numerous examples of environmentally responsible mining and outstanding reclamation at mines developed since 1981 under the jurisdiction of the 3809 regulations, we find no justification whatsoever to modify the definition of unnecessary and undue degradation.

Our members find that the unnecessary and undue degradation definition specified in 43 C.F.R. §3809.0-5(k) requires stringent, comprehensive, and appropriate levels of environmental protection for the following reasons:

- The definition states "Failure to comply with applicable environmental protection statutes and regulations thereunder will constitute unnecessary or undue degradation." This requirement to comply with other state and federal environmental regulations is an effective built-in mechanism for continually updating the 3809 regulations by incorporating all other relevant environmental laws and regulations simultaneously with their enactment.
- The requirement to comply with "applicable environmental protection statutes and regulations" automatically encompasses all environmental performance standards, including technology-based standards from other environmental and reclamation laws, as well as financial assurance requirements mandated in state and federal laws and regulations.
- The current definition appropriately implies a site-specific environmental performance standard. Retention of this site-specific concept is critically important to ensure that environmental and reclamation measures employed at mines on BLM-administered land are responsive to site environmental conditions. The enormous diversity of climate, terrain, geology, and the biologic and social environments at mines on BLM-administered

lands throughout the country demands a site-specific performance standard that gives the BLM the necessary regulatory flexibility and discretion to make custom-tailored decisions appropriate for the site under consideration.

- The current definition is a rigorous standard that demands comprehensive environmental protection and reclamation at mines on BLM-administered land. The BLM's ability to make site-specific decisions about mines in no way lessens the mining industry's burden of compliance compared to other industries. Like all industries, the mining industry must comply with all applicable state and federal environmental protection laws and regulations because all mines operate under the umbrella of these provisions in addition to the 3809 regulations.

- Secretary Babbitt's January 6, 1997 memorandum on the 3809 regulations advocates modifying the 3809 regulations to include a new standard mandating the use of "best available technology and practices". Any modification of the 3809 regulations to include a best available technology and practices standard would be inappropriate because it would not improve environmental performance, add any extra measure of environmental protection, or achieve better reclamation at mines on BLM-administered land. To the contrary, the one-size-fits all approach implicit in the best available technology standard would result in inferior reclamation because there is no best universal approach to reclamation. Superior reclamation can only be achieved if the BLM and mine operators retain the ability to custom-tailor reclamation measures to fit site-specific environmental conditions. The wide range of environmental conditions on BLM-administered lands throughout the country demand the flexibility currently provided by the unnecessary and undue degradation definition.

The 5-Acre Threshold for Notice Level Activities

The BLM must retain a process that allows for rapid review and authorization of mineral exploration activities in order to remain in compliance with the provisions of § 2 of the Mining and Mineral Policy Act of 1970, § 102(a)(7),(8), and (12) of the Federal Land Policy and Management Act of 1976 (FLPMA), and the 3809 regulations that direct the Department of Interior to encourage the development of federal mineral resources and reclamation of disturbed lands. For example, 43 U.S.C. § 3809.0-1(a) states that one of the objectives of the 3809 regulations is to:

> "Provide for mineral entry, exploration, location, operations, and purchase pursuant to the mining laws in a manner that will not unduly hinder such activities but will assure that these activities are conducted in a manner that will prevent unnecessary and undue degradation and provide protection of non-mineral resources of the Federal lands;"

Many WMC members are exploration geologists actively engaged in mineral exploration efforts on BLM-administered land and thus have direct and extensive experience working under the Notice of Intent (NOI) 5-acre process. Based on this experience, we are unaware of environmental problems associated with exploration activities performed under NOIs.

The unnecessary and undue degradation performance standard mandated in the 3809 regulations applies to mineral exploration activities pursued under either an NOI or a Plan of Operations (PLAN). Thus compliance with all applicable environmental laws and regulations, and appropriate reclamation are requirements for both NOI and PLAN sites. Those WMC members who are exploration geologists, environmental coordinators, and reclamation specialists have been personally responsible for implementing reclamation measures and ensuring compliance with the unnecessary and undue degradation performance standard at numerous NOI sites throughout the country, and can attest to the environmental protection measures, standard of care, and reclamation efforts typically performed at NOI sites.

The BLM's scoping materials do not reveal any identified problems with the 5-acre NOI threshold. Absent any clearly stated problem with the 5-acre NOI threshold, and in light of the stringent environmental protection and reclamation requirements applicable to NOI sites, the WMC sees no justification whatsoever for changing the 5-acre NOI process for mineral exploration sites. Should the BLM have concerns regarding the limited number of mining operations that may be authorized under an NOI, the WMC recommends the BLM make specific comments regarding any issues or concerns affecting these operations, and confine the analysis of changes to the 5-acre NOI process to these types of sites.

It is critically important that the BLM retain a process to expedite the review and authorization of exploration-level activities. Weather constraints at exploration sites in a number of settings throughout the country severely limit the practical exploration season. Moreover, a number of stakeholders including but not limited to geologists, consultants, drilling contractors, analytical laboratories, and restaurant owners and motel/hotel operators in exploration areas earn a significant portion of their livelihood during this exploration season. Any changes to the review and authorization process for small and initial (i.e., under 5 acres) exploration efforts that result in significant delays in the approval process will adversely affect these stakeholders. With this in mind, a thorough analysis of the socioeconomic ramifications to these stakeholders of any proposed changes to the NOI review process must be included in the DEIS prepared to evaluate revisions to the 3809 regulations.

In evaluating any potential changes to the 5-acre NOI threshold, the BLM must consider its newly established (February, 1997) bonding requirements for NOI sites. It should be noted that the WMC strongly supports reclamation and appropriate financial assurance requirements at all mine and mineral exploration sites, regardless of their size. However, we strenuously object to the process - or in this case the lack of process, used by the Secretary to promulgate these new bonding requirements.

Time Frames for BLM Action on Plans of Operations

The WMC encourages the BLM to establish and comply with mandatory time frames for reviewing and approving PLANS. The mining industry is currently experiencing problematic delays in the BLM's PLAN approval process. For the most part, the delays are related to the time it takes the BLM to prepare an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) as required by the National Environmental Policy Act (NEPA). At least some delays appear to be due to insufficient BLM staffing levels. Establishing clear regulatory deadlines should help define BLM staffing requirements.

The DEIS should evaluate the potential for further delays in the BLM's PLAN approval process if substantial changes are made to the 3809 regulations. This evaluation should assess the expanded BLM staffing levels that would be required to 1) avoid additional delays, and 2) to decrease the time required for BLM PLAN approval.

Coordination with the States

Coordination with state regulatory agencies is one of the stated objectives of the 3809 regulations and directives in the Secretary's January 6, 1997 memorandum. Specifically, 43 C.F.R. §3809.0-1(c) states the following:

> "Coordinate, to the greatest extent possible, with appropriate state agencies, procedures for prevention of unnecessary or undue degradation with respect to mineral operations".

To satisfy this objective, and to minimize duplication among regulators as directed by the Secretary, the BLM must continue to work closely with state agencies because all of the western mining states have comprehensive environmental and reclamation regulations applicable to hard rock mining.

The WMC strongly encourages the BLM to continue to coordinate and cooperate with western state regulatory agencies, many of whom have significant and valuable experience in regulating the environmental aspects of hard rock mining. Many WMC members, having worked in a number of western states, have first-hand experience with the states' expertise and the current level of coordination between the BLM and the states. It is the WMC's opinion that the states and the BLM are working well together and that the mining operations under this joint state-federal regulatory jurisdiction are complying with applicable environmental requirements and implementing successful reclamation measures. The WMC sees no reason to change these cooperative efforts.

Performance Standards

Because the unnecessary and undue degradation standard in the 3809 regulations mandates compliance with all applicable state and federal environmental laws and regulations, hard rock mining operations on BLM land must already comply with a number of environmental performance standards. Mining operations developed under these regulations expend considerable resources complying with these requirements. The 3809 regulations also establish another performance standard - the mandate to "Provide for reclamation of disturbed areas" [see 43 C.F.R. §3809.0-2(b)], but wisely and appropriately do not include prescriptive, one-size-fits-all reclamation performance standards.

Given the diversity of climate, terrain, geology, mineral deposit types and mining methods regulated under the jurisdiction of the 3809 regulations, uniform federal reclamation performance standards would be completely inappropriate and would significantly diminish the quality of reclamation currently being achieved at hard rock mines on BLM lands. In 1979, the National Academy of Sciences performed an independent review of the hard rock mining industry and evaluated whether uniform, federal environmental or reclamation standards would be appropriate. This study, known as the COSMAR Report, concluded that hard rock mining standards must be tailored to site-specific conditions in order to be responsive to the diversity of the environmental settings in which hard rock mining occurs in the U.S.

COMMENTS ON THE SCOPE OF THE ENVIRONMENTAL IMPACT STATEMENT DEVELOPED IN CONJUNCTION WITH THE REVISED 3809 REGULATIONS

Irregularities in the Public Scoping Process

In conjunction with revising the 3809 regulations, the BLM will be developing a programmatic EIS to evaluate the impacts associated with the proposed regulatory changes. The WMC feels it is imperative for the BLM to conduct a comprehensive and detailed analysis of the impacts of any proposed revision, and consider stakeholder issues, concerns, and comments. With this in mind, we support preparation of a programmatic EIS. However, the WMC has significant concerns regarding the BLM's public scoping efforts and plans for developing the EIS, and question whether these efforts and plans satisfy the spirit and obligations of NEPA.

A number of WMC members have considerable experience working with the BLM during preparation of NEPA documents for proposed mining projects on BLM land. This experience runs the gamut from project proponent to third-party consultant selected to prepare the NEPA document. The BLM's public scoping process and plans for developing the programmatic EIS do not conform with the public scoping process typically used by the BLM for mining projects, and in our opinion, may not fully comply with NEPA requirements for the following reasons:

- The BLM Must State a Proposed Action Prior to Public Scoping - The BLM's scoping documents do not include a definitive and specific Proposed Action statement. The absence of a specific Proposed Action statement makes it impossible for the public to provide substantive comments regarding the BLM's proposal. Thus, the scoping performed to date is generic in nature and does not satisfy NEPA requirements to allow the public to comment on the agency's proposal because none has been set forth.

- The BLM Must Develop a Statement of Purpose and Need - In addition to lacking a Proposed Action, the BLM's scoping notice also does not provide a statement of Purpose and Need. The absence of a statement of Purpose and Need is another shortcoming with respect to NEPA and the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 C.F.R. §1502.13) which state that every EIS must "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action".

  The BLM must justify their proposal to revise the 3809 regulations. To date, the BLM has offered no compelling reason to change the regulations. In fact, the April 1992 BLM study of the 3809 regulations showed no need for any changes to the environmental or reclamation provisions of these regulations. Thus it appears there are no tangible or substantive reasons to modify the regulations. If the BLM is relying on any new information which might justify changing the 3809 regulations, this new information should be made available to the public.

  The WMC questions the appropriateness of the BLM's proposal to revise these long-standing regulations that have been working well in light of the following: the large number of environmentally responsible mines developed under the 3809 regulations, the industry's good track record in complying with these regulations, the requirement at 43 C.F.R. §3809.0-5(k) that mining operations comply with all applicable state and federal environmental and reclamation laws, and the complete absence of any stated need to modify the 3809 regulations.

- The BLM Should Provide Additional Scoping Opportunities - To comply with NEPA, the BLM should hold additional scoping sessions following development of a draft proposal to revise the 3809 regulations to allow the public to comment on the specifics of the proposed changes to the regulations. As stated above, the scoping effort performed to date is generic in nature and insufficient to allow public input on the proposed regulatory changes.

- The BLM Should Prepare the DEIS After Public Scoping on the Draft Revisions to the 3809 Regulations

  As stated in the March 12, 1997 memorandum from Sylvia Baca, Acting BLM Director, to Bob Armstrong, Assistant Secretary, Lands and Minerals Management, the BLM plans to develop the Draft EIS (DEIS) concurrently with developing the proposed revisions to the 3809 regulations. The WMC feels this is a completely inappropriate aberration of the NEPA process. NEPA provides the public both a right and an orderly process for commenting upon major federal actions. The simultaneous preparation of the DEIS and the revised regulations puts the cart before the horse, denies the public the right to comment on a specific proposed action, and is a significant departure from the typical public NEPA review process.

  The DEIS should evaluate the impacts of the proposed revisions to the 3809 regulations and should consider and respond to public issues, comments, and concerns about the proposed revisions. Therefore, the DEIS should not be prepared until after the public has had an opportunity to review and comment upon the BLM's draft proposal for revising the 3809 regulations.

Alternatives and Issues to be Evaluated in the DEIS

The WMC supports preparation of a DEIS that comprehensively evaluates the range of alternatives to revising the 3809 regulations, and thoroughly analyzes the impacts associated with each alternative. With this in mind, we offer the following comments and suggestions:

- The DEIS Must Include a Detailed Discussion of the No Action Alternative - The DEIS must include a substantive and thorough analysis of the No Action Alternative to evaluate the level of environmental and reclamation regulatory requirements that would be applicable to future mining projects on BLM lands with no changes to the 3809 regulations. The No Action Alternative must consider existing state and federal regulatory programs and the BLM's existing authority and recent use of this authority to modify the 3809 Regulations through policy guidelines and rulemaking on selected topics (e.g., the development of BLM policy guidance on acid rock drainage and cyanide, and new occupancy and bonding rules).

- The DEIS Must Analyze the Wide Range of Sites and Mines Regulated Under the 3809 Program There is an enormous diversity of climate, terrain, geology, mineral deposit types, and mining methods represented by mine sites on BLM lands. Both the Affected Environment and Environmental Consequences chapters of the DEIS must give full and equal weight to the many different types of environmental settings and mines, and provide a separate analysis of the impacts that would occur at these different settings and mines if the various alternatives considered in the DEIS were implemented.

- The DEIS Must Include a Detailed Analysis of State and Other Federal Environmental Laws and Regulations Affecting Mining - The Affected Environment chapter of the DEIS should also include a detailed discussion of the many state environmental and reclamation regulatory programs and federal laws and regulations affecting mining. The Environmental Consequences chapter should assess how these programs would be affected due to implementation of the DEIS alternatives. In particular, this analysis should quantify impacts to state mine land reclamation programs and federal environmental regulatory programs for which the states have primacy. Because many of these state regulatory programs were developed after enactment of FLPMA and development of the 3809 regulations, the DEIS should acknowledge the evolution of these programs and the coordination that has developed between the BLM and state mine land reclamation and environmental regulatory agencies.

  Based on information provided to date, the BLM has not identified any gaps between the 3809 regulations and state mine land reclamation and environmental programs. The DEIS should assess whether any such gaps exist. If gaps are identified, proposed changes to the 3809 regulations should evaluate ways to fill the gaps. If this analysis reveals no gaps between state programs and the 3809 regulations, few if any revisions to the 3809 program are warranted - otherwise, the Secretary's directive to minimize duplicative regulations will not be satisfied.

- The DEIS Must Include a Detailed Analysis of Socioeconomic Impacts - Any changes to the 3809 regulations that could result in significant delays in approving future mineral exploration and mining PLANS could cause adverse economic and social impacts to mining communities, state economies, and other stakeholder groups including geologists, consultants, drilling contractors, analytical laboratories, and restaurant owners and motel/hotel operators in mining and exploration areas who derive a substantial portion of their income working for or providing goods and services to the hard rock mining industry. The Affected Environment chapter of the DEIS must acknowledge and quantify the positive social and economic impacts associated with mining. The Environmental Consequences chapter must disclose any positive or adverse social and economic impacts that would result from implementation of the DEIS alternatives. This analysis must be site specific; a generic or national evaluation will not adequately assess the impacts to local communities and regional economies.

  Additionally, the DEIS must evaluate the economic impacts that proposed changes in the 3809 regulations would have on mining equipment manufacturers and companies that provide goods and services to the mining industry. Many of these companies are located in parts of the country not typically considered mining states such as Wisconsin (P & H Mining Equipment and Nordberg), Illinois (Caterpillar), New Jersey and Texas (Ingersoll Rand), etc. The continued existence of thousands of jobs in these states relies on a strong mining industry in the western U.S. The DEIS must thoroughly evaluate the

economic consequences to these workers and to their state economies caused by changes to the 3809 regulations.

- The DEIS Must Consider Specific Impacts to Notice-Level Operators - The Secretary's directive to repeal, narrow, or otherwise modify the 5 acre NOI process will have a direct and focused impact upon individuals, small operators, and companies who perform most of their mineral exploration and/or mine development work under an NOI. The DEIS should include a separate socioeconomic analysis of the impacts of the proposed changes upon this groups of stakeholders. Because most mineral discoveries start as NOI-level exploration projects, the DEIS must also evaluate the impact that elimination of the NOI process or delays in the NOI approval process would have on the rate of discovery, and the impact to local, regional and national economies as a result of diminished levels of exploration, discovery, and mine development.

- The DEIS Must Consider Cumulative Impacts - The DEIS must evaluate the cumulative impacts of any proposed changes to the 3809 regulations with respect to other connected actions including but not limited to the EPA's proposed National Hard Rock Mining Framework, the BLM's recent use and occupancy regulations, the BLM's new bonding regulations, other EPA initiatives such as the recent addition of the hard rock mining sector to the Toxic Release Inventory (TRI) reporting requirements and potential changes to the RCRA Bevill exclusion for certain mining wastes, and changes to the Mining Law of 1872 being contemplated by Congress. This analysis should evaluate the cumulative impacts of changes in the 3809 regulations in conjunction with potential changes in royalties, fees, taxes, reporting requirements, and a plausible range of future regulatory developments.

- The DEIS Must Consider Impacts to Minerals Availability - Changes to the 3809 regulations that result in significant delays in the PLAN and NOI approval processes may have an adverse impact on the supply of domestic hard rock minerals. The DEIS should evaluate the impact that revisions to the 3809 regulation would have upon minerals availability, and the potential for increased reliance on foreign mineral supplies. This analysis should consider the balance of foreign trade payments as a result of decreases in domestic mineral production. Similarly, the DEIS should consider how the 3809 regulations could be modified to encourage and facilitate mining on BLM lands and the resulting positive economic effects of increased mineral exports and decreased mineral imports.

- The DEIS Must Consider Impacts to Existing Operations - The DEIS must evaluate how existing operations would be affected by proposed changes to the 3809 regulations. The WMC encourages the BLM to develop a grandfathering alternative applicable to all existing operations. In the unfortunate event that the revised 3809 regulations mandate prescriptive performance standards, some element of grandfathering is necessary for both

existing sites and sites at which a PLAN modification is filed in the future because it may be impossible or impractical to retrofit existing operations to comply with new standards.

- The DEIS Should Consider Alternatives to Facilitate Mining and to Create Reclamation and Environmental Incentives - Although the Secretary's January 6, 1997 memorandum does not contemplate changes to the 3809 regulations to facilitate mineral exploration and mine development or to create incentives for reclamation and remediation of abandoned mines, a number of beneficial social and economic impacts on the local, regional, and nation levels could accrue from selected changes. The WMC believes that regulatory changes to streamline the review process and stimulate clean-up of abandoned mines would significantly enhance mineral exploration levels without compromising the high level of environmental protection and reclamation success realized under the present regulatory system. The WMC strongly urges the BLM to expand the scope of the DEIS to evaluate revisions to the 3809 regulations to encourage and facilitate environmentally responsible mining and reclamation of abandoned mines.

CONCLUSION

The WMC appreciates this opportunity to provide comments to the BLM, and we look forward to what we hope will be a cooperative EIS process that includes additional opportunities to comment on proposed changes to the 3809 regulations. We are also hopeful that this process not become a political forum. We believe this should be an opportunity for collaboration and constructive dialogue based on facts, science, and an honest assessment of the level of environmental protection and reclamation successes achieved under the status quo. Political rhetoric can only detract from the outcome of this process. With this in mind, we are concerned that the Secretary's statement in his January 6, 1997 memorandum regarding Congress' failure to enact legislation reflects a political agenda. This politicization is unfortunate and inappropriate, and we hope in the future the Secretary and others can put aside politics to decide this important issue.

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