

MONTHLY REPORT - May 1994
MINING AND MINERALS BRANCH

GENERAL

NPS Compiles Factual Record to Help Defeat a Challenge to Regulation of Oil and Gas Development in Parks - In March, owners of subsurface oil and gas rights at Padre Island filed suit in Federal District Court in Texas challenging the NPS's authority to regulate private mineral development at the park. If the Plaintiffs do not prevail with that assertion, they argue in the alternative that the Service's exercise of that authority has "taken" their private rights. They seek compensation of not less than \$750,000,000. The Federal Government must respond to the complaint by July 18. The extended time frame is due to the Plaintiffs failure to serve the Federal Government properly back in March. They corrected their error on May 19, and now the Federal Government has 60 days to respond with an answer to the allegations.

To assist the attorneys respond to the complaint, the branch in cooperation with the SWR and park, pulled together a factual statement as to the Service's track record in regulating nonfederal oil and gas in parks. As part of that effort, branch staff traveled to the Padre Island to examine the park's oil and gas case files. Branch staff are preparing representative case histories on the Service's handling of oil and gas operations. The case histories should convey a picture of the practical application of the 9B regulations at the park beginning in 1962 to the present. Our target date for completing the analysis, along with a legal analysis of the Service's statutory authority to regulate nonfederal oil and gas development in parks, is the end of June. (McCoy, Kassman, Boucher, Woods)

NPS Liability for Injuries at Mineral Sites - The Solicitor's Office has urged the NPS to include guidance on potential tort liability due to visitor injuries in parks in the upcoming revision to the NPS Management Policies. As part of that effort, branch staff participated in a meeting with staff from the Solicitor's Office, the Policy Office, and Ranger Activities to discuss necessary guidance. The branch will provide input to the revision effort that addresses the hazards associated with active mineral operations and abandoned mineral lands (AML) sites. Since the late 1970's, at least seven people have been killed or hurt at AML sites on NPS lands. Two lawsuits have been brought against the NPS. One case was settled out of court and the NPS was found liable in the other.

To help minimize NPS liability at active and abandoned sites, the branch has developed warning signs and a brochure to alert visitors to the potential danger. Totally eliminating the dangers from park boundaries carries a daunting price tag. The branch estimates it would cost at least \$200 million to reclaim the estimated 2,400 AML sites in parks. Despite this significant fiscal constraint, the NPS is making a concerted effort to protect park visitors and provide them with a safe environment. (Bates)

Bureau of Land Management's Initiates Performance Review - In April, the Bureau of Land Management (BLM) held a "summit" at Lake Tahoe, Nevada, to discuss BLM's future

in light of the Administration's National Performance Review initiative. At the meeting, BLM identified the following five bureau priorities: (1) maintaining healthy ecosystems; (2) diversifying BLM's work force; (3) developing collaborative leadership; (4) serving current and future publics; and (5) improving the way BLM does business.

On May 10, branch representatives participated at a summit follow-up meeting in Washington, D.C., attended by various federal agencies and interest groups. Topics included a summary of the summit, the National Performance Review, and BLM's priorities. At the meeting, a panel was convened to discuss BLM's Federal Onshore Oil and Gas Performance Review. Panel participants included representatives from the National Wildlife Foundation, American Mining Congress, Marathon Oil, Rocky Mountain Oil and Gas Association, and the Navajo Nation. Industry comments focused on reducing federal regulatory duplication, providing royalty relief, and encouraging environmental assessments over environmental impact statements. Industry expressed concern that the lack of federal incentives for drilling would stimulate the oil and gas industry to look overseas for development opportunities. A representative from the National Wildlife Foundation spoke on the need to protect the environment while taking into account ecosystem management. BLM emphasized that the bureau needs to improve customer satisfaction. Time will tell whether any given customer's preferences dominate the bureau's decision making. (Bates)

Branch Establishes Rapport with BLM on Federal Onshore Oil and Gas National Performance Review - As noted above, the BLM is hard at work reviewing its Federal Onshore Oil and Gas Program. As part of that effort, BLM held scoping meetings through April 1994 on how to improve the efficiency of its oil and gas program and customer satisfaction. Branch staff are coordinating NPS involvement in the review and solicited comments from park resource managers. Twelve parks, two WASO offices, and one region provided comments and suggestions that mostly focused on impacts to park resources and the best way to deal with them. The branch prepared a memorandum for the Director's signature that conveyed NPS concerns and our desire to become an active participant in the review process with BLM. The bureau appears open to having the NPS participate as a member of select "issue teams" charged with developing workable solutions to identified shortcomings in the oil and gas program. The NPS is most interested in participating on those teams dealing with trans-boundary impacts and environmental compliance.

In May, branch staff attended an informational meeting in Washington, D.C., that included representatives from BLM, NPS, Department of Energy, and Forest Service, to brief the Assistant Secretary for Land and Minerals Management on the schedule and scope of the Review. BLM is committed to a proposed revision to the Onshore Oil and Gas Program by Fall 1994. (Heise, Bates, Woods)

Director Expresses Continued Interest in the Handling of "Valid Existing Rights" to Mine Coal In and Adjacent to Parks - On May 26, 1994, the Director sent a memorandum to the Director of the Office of Surface Mining Reclamation and Enforcement (OSM) expressing the Service's high interest in how OSM treats three "valid existing rights" (VER) related matters. Foremost, the memo indicated that NPS very much would like to participate in OSM's efforts to define VER under the Surface Mining Control and Reclamation Act of

1977 (SMCRA). In §522(e) of that statute, Congress specifically prohibited coal mining in units of the National Park System and adjacent to such units if adverse impacts would result. Efforts to define VER have been under way since the late 1970s. As the result of a federal court case, the following definition for VER went into effect in 1980: entities qualify as having VER if as of the date of SMCRA they have made a "good faith effort to obtain all requisite permits to mine coal." In 1981, the Administration changed and efforts to redefine VER ensued. Throughout the 1980s, litigation was nearly continuous on the OSM's attempts to define VER. Two different rules were overturned by the courts because of OSM procedural errors in complying with the Administrative Procedures Act. In the intervening years, much debate has occurred as to how to define VER. OSM has a weighty and controversial task before it.

The NPS also alerted the OSM Director to the likelihood that a proposed mine in Tennessee outside **Cumberland Gap National Historic Park**, which is located in Tennessee, Kentucky and Virginia, would trigger the need for the applicant to demonstrate VER. Because of the proposed mine's proximity to the park and the nature of the surrounding topography, it appears that the proposed coal mine will adversely impact the park's water resources, viewshed and cultural resources. Under §522(e)(3) of the SMCRA, an entity must demonstrate VER if proposed coal mining will adversely impact a publicly owned park.

Finally, the NPS urged the OSM Director to rectify a shortcoming in OSM regulations that allows entities to explore for coal in parks without first having demonstrated that they have VER. A proposal to explore for coal at **Big South Fork**, which is located in Tennessee and Kentucky, highlights the need to eliminate this shortcoming. A property owner in the park has notified park managers and OSM that he seeks to explore for coal. While OSM regulations do not provide adequate protection for park resources in the instance case, the enabling statute for the Big South Fork does. The NPS is looking forward to resolving the above issues with OSM. (McCoy)

Computer Technology Developed to Help Identify Adjacent Land Mineral Threats -

Branch and DSC staff have designed a computer system to help identify whether mineral development proposals or planning efforts are near park units. The system uses an IBM 486 computer with enhanced memory, ArcView[®] software, and a compilation of digital maps and computer databases. The software is designed to be a user-friendly system for the casual user. It can answer questions such as: what counties, Bureau of Land Management or U.S. Forest Service lands are near parks?; what are the addresses and telephone numbers of the adjacent land managers?; which U.S. Geological Survey (USGS) quadrangle maps cover park units?; when are planning efforts scheduled?; and, is a proposed development in the same watershed as a park unit? The user can display the answer graphically, by printing a map, or the results can be presented in a table. We will use this program to notify parks of mineral-related planning efforts on adjacent lands and mineral development proposals that may affect park units.

The system presently has the following coverage for the lower 48 states:

- NPS Units and Regions;
- Areas within 10 miles of Unit Boundaries;

BLM Districts and Resource Areas;
National Forests and National Grasslands;
Counties and States;
Rivers, Streams, and Lakes ;
Major Roads, Highways, and Railroads;
Major Cities;
Latitude and Longitude lines at 2-degree intervals; and
Map Index for 250k, 100k, and 24k quadrangles.

Contact the Mining and Minerals Branch for more information on the ArcView software and how to establish this inexpensive system in your office. (Ziegenbein, Geniac)

Minerals Issues Addressed at NPS Maintenance Conference - The NPS Multi-Regional Maintenance Conference in St. Louis, Missouri, presented an opportunity to discuss issues of concern to maintenance staff. Branch staff presented two talks at the conference titled "NPS Administrative Use of Mineral Materials" and "Abandoned Mineral Land Issues." The mineral materials session described the impacts and mitigation methods for in-park extraction of sand, rock and gravel for park maintenance or construction projects. The abandoned mineral lands session focused on the physical hazards most commonly found at sites and cost effective solutions that park maintenance staff could implement. Both talks focused on what park maintenance can do to minimize or mitigate the impacts from these sites. (Ziegenbein, Higgins)

National Park Foundation (NPF) Monies Available for Abandoned Mine Projects - The NPF received a contribution of \$120,000 from a group of gold mining companies to benefit the National Park Service (NPS) through the unrestricted grants program. The foundation has agreed that these monies will be set aside for grants related to abandoned mine projects. Given the Foundation's four program areas of outreach and education, interpretation, support for volunteers, and partnerships, the foundation encourages parks that are interested to submit project proposals that are as inclusive as possible. For example, projects containing a demonstration reclamation project with public education. Because of the vast scope of the abandoned mine problem, and the need for creative partnerships to tackle it, there are many pilot demonstration projects that could serve as models for other parks. The next deadline for submission of grant proposals is October 15, 1994. Based on the servicewide abandoned mineral land inventory the branch has identified 25 potential projects that might fit the criteria for the NPF grant proposal. Branch staff are contacting the regions and parks to identify potential projects. If you want copies of the "NPF Grantmaking Guidelines" and application, or if you have ideas for projects, please contact Bob Higgins. (Higgins)

Hazardous Materials Conference and Poster Session Proves Productive - Branch staff attended the Department of Interior Hazardous Materials Conference in Phoenix, May 16-20, 1994, and presented a poster session relative to hazardous materials found at abandoned mine sites. The conference had many worthwhile sessions, and gave the opportunity to develop some valuable contacts. Most notably, contact was made with two environmental protection specialists from the BLM Management Needles District Office who currently manage the land which will be transferred to the National Park Service under the imminent California

Desert Protection Act. Various issues relative to past and present mineral development were discussed, and tentative plans were made for a meeting orienting NPS staff to specific hazardous materials and minerals management issues in the area. (Burghardt)

National Park Service Hazardous Waste Coordinators Meeting - This meeting was held in conjunction with the Department's Hazardous Materials Management Conference in Phoenix, Arizona. Bob Higgins made a short presentation to the NPS Hazardous Materials Washington Office group and their regional coordinators. The presentation provided some basic background about the NPS minerals organization and program areas. The second part of the presentation dealt with the AML program and specifically the need for our offices to coordinate efforts on managing those AML sites with potentially hazardous substances. Shawn Mulligan will be the NPS-WASO Hazardous Materials Office contact in dealing with our overlapping responsibilities for AML site characterization and cleanup. The first task that needs attention is resolving the discrepancy in numbers of potentially hazardous (in the CERCLA sense) AML sites. That number varies from 100 to 700 depending on definitions and data sources. This needs to be resolved before the inventory is provided to the Department. (Higgins)

Abandoned Mines Safety Talk Makes a Hit - In response to a requests from the U.S. Geological Survey (USGS) and the U.S. Bureau of Mines (BOM), branch staff presented a "working around abandoned mines" safety talk to 30 USGS and BOM geologists who routinely work in and around abandoned mine sites. Although the initial reaction was somewhat skeptical as to why the NPS was giving such a talk to this group, attendees soon discovered that we have extensive experience in abandoned mine inspections and safety, and the presentation was well-received. The training was part of the branch's outreach effort to interact with other federal agencies in areas of common interest and expertise. Similar training has been given to park personnel at a number of parks involved in abandoned mine inventories. (Burghardt)

Bureau of Mines Host Meeting in Search for Answers - The BOM convened an Abandoned Mine Characterization Research Advisory Group. The first (and probably the last) group meeting was held on May 16, 1994, in conjunction with the Department of the Interior 2nd Annual Hazardous Materials Management Conference in Phoenix, Arizona. The advisory group consisted of about 20 people from Department of Interior agencies, the U.S. Forest Service, and the Environmental Protection Agency. The meeting was designed as a brainstorming session to solicit as many ideas as possible for abandoned mine characterization research. The meeting was successful from the point of generating numerous ideas for research. (Higgins, Burghardt)

Bureau of Mines Foam Concepts Experimental Project One Step Closer to a Reality - Branch staff attended a Bureau of Mines field demonstration of placing low density foam concrete on a reusable rubber bladder form for potential use in closing mining shafts and linear stopes that intersect the land surface. The project successfully confirmed the utility of the foam and also showed that achieving proper strength of foam cement is a risky process concerning science and art. It is hopeful that the final success of the project will add another tool to the arsenal of methods for abandoned mine shaft closures at reasonable costs.

(Cloues)

Colorado School of Mines Host Abandoned Mine Planning Session - Dr. Kathleen Andersen of CSM's Mining and Environmental Information Center conducted a multi-agency (Bureau of Mines, Office of Surface Mining, National Park Service, Environmental Protection Agency, etc.) planning session to kick-off a grant to study techniques and approaches into the management of non-point source pollution from abandoned mines. Remediation focused on preventative measures and hydrologic controls, passive mine drainage and treatment techniques, and active treatment systems. The jury is still out on the utility to the National Park Service. (Cloues)

Poster Display Available for Minerals Education and Outreach Programs - The Branch has a tabletop poster display that we have been using for poster presentations at minerals related conferences and meetings. By combining colorful photographs, text blocks, and title bands, we can create displays that are both attractive and economical and have a professional appearance. Some of the activities branch has recently prepared posters for are: The 15th Annual AML Conference, Jackson, WY; The American Society for Surface Mining and Reclamation Conference, Pittsburgh, PA; The NPS Multi-Regional Maintenance Conference, St. Louis, MO; Department of Interior's 2nd Annual Hazardous Materials Conference, Phoenix, AZ; The Third International Mining History Conference, Golden, CO. The display is very flexible and could easily be used for presenting information on minerals topics specific to a region or park. Branch staff can help by working with region/park staff to design a poster tailored to your specific educational goals and audiences. If you would like further information please contact Jim Wood at (303) 969-2149 or by cc:Mail (Jim F. Wood).

MIDWEST REGION

Branch Assists in Setting Reclamation Bond - Branch staff responded to a request from Cuyahoga's Acting Assistant Superintendent to help establish an adequate bond amount in conjunction with the acquisition of donated lands at Hydraulic Press Brick Company's Haydite pit. The complicated negotiations, designed to eliminate the threat of a sanitary land fill in the abandoned mine pit, are progressing to fruition and a proper bond will guarantee future reclamation upon mine completion. The complex reclamation goals involve the elimination of high walls, stable slopes, shore line restoration, lake formation, and revegetation to park standards. (Cloues/Steensen)

PACIFIC NORTHWEST REGION

Branch Assists Olympic National Park Respond to Special Use Permit Application to Mine at Shi-Shi Beach - Branch staff recently completed one of the longest and most in-depth comment documents in branch history. The comment memorandum provided a page-by-page regulatory, geologic, and technical critique of the 100+ page Special Use Application (including maps and legal descriptions) addressing the proposed exploration and development of the private mineral estate underlying Shi-Shi Beach in Olympic National Park. The professed owner of the private mineral estate and his agents submitted a special

use permit application to the superintendent in late March. The application turned out to be loaded with sketchy ownership information, inaccurate geological interpretations, and a jumble of proposed activities ranging from simple hand sampling to removing a large portion of the Wilderness beach with heavy equipment. Although not a part of a "normal" mineral development proposal, the application also declared mineral values ranging from \$260 million to \$800 million for the 182-acre mineral estate. Branch geologists, engineers, legal, and technical staff challenged a large portion of the data presented in the application including the applicant's belief that he has the right to cross NPS managed Wilderness with motorized equipment ranging from 4X4 trucks to backhoes to semi-trucks pulling lowboy trailers. The Branch sent comments to the park and the Pacific Northwest Region for distribution to the applicant. (Moss, Covington, Cloues, Kassman, Shaver, Woods)

ROCKY MOUNTAIN REGION

Former President Carter Urges Secretary Babbitt to Protect Yellowstone From Proposed Gold Mine- In March, Jimmy Carter wrote Secretary Babbitt out of concern that the proposed New World Mine outside Yellowstone National Park would adversely affect the park. The mine is being proposed by a Canadian company that seeks to extract gold within 2.5 miles of the park and within 1.5 miles of a nearby designated wilderness areas. Impacts to water quality are of utmost concern to the NPS. The former President urged the Secretary to use the 1872 Mining Law Reform effort as a means to advocate the adoption of measures that would protect the park from such a proposed mine. Mr. Carter indicated his awareness of the different levels of protection advocated by the House and Senate and endorsed the more protective House passed bill. The branch drafted a response for the Secretary that advocated adoption of the protective House language, but noted that given the timing of the reform effort and the progress of the proponents of the New World mine, the mine would likely be grandfathered from meeting reform requirements unless action was taken quickly. The closing of the draft response committed the Secretary to raising the issue with the members of the conference committee that has been convened to reconcile the differences between the House and Senate passed bills. Given the sensitivity of the 1872 Mining Law effort, our draft response to Mr. Carter will likely be modified by the Department. (McCoy)

Field Trip Dry Run is a Marathon - In preparation for the Bureau of Land Management/Colorado School of Mines Symposium on Environmental Issues in Oil and Gas Operations, branch staff and representatives from the BLM, U.S. Forest Service, and Arco, conducted a dry run of the proposed field trip associated with the Symposium. The trip goes to Durango the first day, visits the Amoco HD Mountain Oil and Gas Field and Devon Energy's Navaho Reservoir Oil and Gas Field the second, and ends with a tour of Arco's Sheep Mountain Facility near Walsenberg on the third day. All three oil and gas fields are considered showcases, and display excellent examples of multi-well sites, vegetation and topographic screening, and wildlife management. The Arco oil and gas field is particularly well done. As a side note, the branch is considering a separate trip to either the Arco or a Snyder Oil showcase oil and gas field near Rifle, Colorado this fall. Any park staff interested in joining the branch on this trip should contact Bruce Heise. (Heise)

The BLM is Interested in Dinosaur's View - On the above mentioned trip, the BLM participant requested that the branch coordinate a presentation at Dinosaur National Monument, Utah/Colorado, for a BLM staff trip later this summer. They are interested in hearing the park's perspective on oil and gas development and resource protection issues. The superintendent, Denny Huffman, readily agreed to present the park's concerns. A final date has not yet been set. (Heise)

Park Service Discusses Atlas Uranium Mill Tailings with NRC - Branch staff were among several NPS, BLM, and Department of the Interior personnel presenting concerns to the Nuclear Regulatory Commission (NRC) staff regarding the upcoming Environmental Impact Statement (EIS) for the Atlas Moab Tailings. The EIS is slated to address in-place reclamation of the recently decommissioned tailings pile near Moab, Utah, as well as moving the tailings to a safe sight out of the Colorado River floodplain. NPS participants clearly explained to NRC that the Atlas EIS should accurately reflect all necessary studies needed to select an environmentally acceptable preferred alternative. Service staff also explained that NRC's projected date of October, 1994, for the final EIS was optimistic considering that four NPS units as well as the water supply for 16 million people downstream are possibly affected by NRC's reclamation decision. NRC has designated the NPS as a cooperating agency in the EIS effort. The NPS Rocky Mountain Regional office, Water Resources Division, Mining and Minerals Branch, and Arches and Canyonlands National Parks will comment on the EIS. (Moss)

SOUTHEAST REGION

Efforts to Reclaim Abandoned Oil and Gas Wells Nearing Payoff in Jean Lafitte -

Branch and Jean Lafitte National Historic Site staff have been petitioning operators of oil and gas sites in the park to remove hazards left behind when the sites were abandoned. When wells were plugged and abandoned, it was common practice to leave the casing stub and well cribbing in place. These remaining surface structures now pose a hazard to water navigation. Responding to NPS, Chevron has submitted a plan of operations to verify the integrity of the well's surface plug and remove remaining surface hazards. The plan will be used as a model for use by other operators. (Boucher)

Big South Fork Coal Appraisal Leaves Many Unanswered Questions - The mineral rights to 3,882 acres of coal land in Big South Fork, Tennessee/Kentucky, are being considered for acquisition by the Southeast Region Lands Division. At the request of the chief appraiser, staff reviewed the contracted mineral appraisal. The review focused on content, valuation process, and a proposed drill hole plan recommendation. The appraisal review addressed the appropriate discount rate in light of the factual data concerning sulfur content, shaft access, truck versus railroad transportation, prior exploration results, coal quality factors, reserve calculations, coal height inconsistency, adjacent abandoned mines, and projected start-up date. Branch comments will be used in negotiating an equitable value for the subject tract. (Cloues)

SOUTHWEST REGION

Ensearch Searching for Comments on Site Assessment - Ensearch Environmental submitted a proposed scope of work to perform a preliminary assessment of an oil and gas production site at Padre Island, Texas. Branch and Water Resources Division staff reviewed the document and relayed comments to the Southwest Regional Office. One concern was the lack of specifics on how long proposed monitor wells would remain in place and the reclamation that would be done. Another concern was the omission of a sampling procedure, which will be important to the ultimate success of the project. Staff recommended that the region require the company to add the sampling procedure to the plan. (Heise, Woods)

Well Plugging at Big Thicket - Buford Curtis, Incorporated (Buford), submitted a proposed plan of operations for the continued operation of the James Rafferty Fee #1 well on November 15, 1990. Buford recently changed plans and is now proposing to plug the wellbore and remove the equipment. The regulations at 36 CFR §9.30 (c) allow oil and gas operators "the flexibility to design plans of operations only for that phase of operations contemplated." Once the plugging is complete, a plan for the reclamation of both the drill site and appropriate portion of the access road will be submitted. At the region's request, the branch performed a completeness review on this plan. Through this review, staff generated an acceptable plugging procedure and an explanation of recommended additions or revisions to the plan. We supplied a discussion of the Buford's full responsibility to reclaim the disturbed areas. (Boucher, O'Dell, Kassman)

WESTERN REGION

"Killer" Amendment May Be Offer to California Desert Bill - Representative Quillen, a Republican from Tennessee, has expressed his intent to offer several amendments to H.R. 518, the House of Representative's version of the California Desert Protection Act of 1994, that would affect how mining claims are regulated in the proposed East Mojave National Park. The first proposed amendment would exempt unpatented mining claims, for which a patent application was filed before December 31, 1993, from the Service's regulations contained at 36 CFR 9A. These regulations control mineral development on mining claims located in parks. In the 1976 Mining in the Parks Act, Congress specifically directed the Secretary of the Interior to regulate such claims. The second proposed amendment deletes a provision in the bill that requires validity examinations prior to the NPS approving a plan of operations in East Mojave. As a matter of policy, NPS conducts such examinations. The third proposed amendment would exempt unpatented mining claims, that were located before the date of enactment of this Act, from the Service's 9A regulations.

The purpose of these amendments is to allow mining operations to be regulated according to BLM regulations, which are much less rigorous than NPS regulations. Furthermore, these amendments countervail the intent of the Mining in the Parks Act, a statute that was passed almost twenty years ago by Congress for the sole purpose of protecting park resources from mineral operations in parks. The branch provided a description of the potential impacts of this amendment to NPS's Legislative Division. We will continue to track the status of these proposed amendments. (Bates)

Questions Raised and Decisions Sought at Site Meeting in Lake Mead -Branch staff met

with several of Lake Mead's staff, Fred Sturniolo of the NPS Hazardous Materials Office, and the Bureau of Mines (BOM) field team, at the Katherine Mine and Mill site at Lake Mead, Arizona. While touring the entire site, staff discussed the following issues of concern: subsidence features and open mine workings directly next to an interpretive trail and a housing subdivision, erosional and collapse features in tailings, unstable areas in tailings, buried drum sites in tailings, road through tailings, the proximity of the tailings to an extremely popular swimming area, and the absence of a rescue plan. The BOM team discussed the findings of sampling to date and their current fieldwork. At the end of the meeting, possible management strategies were discussed. A trip report was prepared summarizing the discussions and the park will follow up with a discussion in squad meeting about appropriate management strategies. (Smith)

PROFESSIONAL DEVELOPMENT

Reclamation Specialist is Guest Speaker - After hearing his presentation at a recent workshop, branch staff invited Bob Easter, a consultant, to give a presentation to NPS staff on applying geomorphic principles to landscaping and revegetation. The talk was open to staff of Denver-based Washington offices, the Denver Service Center, and the Rocky Mountain Region. Mr. Easter gave a wonderful presentation, emphasizing both technique and pictorial documentation, that was praised by attendees. (Steensen)