

MINING AND MINERALS BRANCH  
Land Resources Division - WASO  
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GENERAL

OSM Director seeks to protect parks - Branch staff and Barbara West, Special Assistant to Assistant Secretary Frampton, attended an August 22 decision meeting hosted by the Office of Surface Mining Reclamation and Enforcement (OSM) on its rulemaking effort to define "valid existing rights" (VER) to mine coal under 522(e) of the Surface Mining Control and Reclamation Act of 1977. Section 522(e) prohibits surface coal mining in and adjacent to a variety of areas, such as, units of the National Park System, unless an entity has VER. At the meeting, OSM Director Uram selected the "modified all permits test" as the agency's preferred regulatory alternative for determining whether an entity has a right to mine coal in and adjacent to parks. Under this test which is very protective of parks, an entity must have made a good faith effort to obtain all needed permits to mine coal as of August 3, 1977, the statute's enactment date. In the 1980s, OSM unsuccessfully tried to redefine VER as mere ownership of coal. Under such a test, all holders of coal rights in parks would qualify to mine coal. Director Uram also instructed his staff to include in the proposed rulemaking the requirement that an entity have VER prior to "exploring" for coal in protected areas, like national parks. The NPS has urged OSM to do so since the mid-1980s. Finally, Director Uram decided to exclude subsidence from the definition of a surface effect of underground mining in the context of the 522(e) prohibitions. He based his decision in part on the statute's special treatment of subsidence issues at 516 and his belief that a rigorous definition for VER would minimize the need to include subsidence under 522(e). While the NPS would have liked Director Uram to have included subsidence among the surface impacts of an underground mine prohibited by 522(e), the Service remains encouraged by Director Uram's willingness to reconsider his decision later in the process after the completion of the draft environmental impact statement (EIS) on the VER rulemaking. OSM hopes to promulgate a legally defensible definition by December 1995. (McCoy)

NPS Continues to Advocate that Park Managers Be Given a Substantive Role in the Adverse Impact Determination Under 522(e)(3) of the Surface Mining Control and Reclamation Act - Under 522(e) of the Act, Congress prohibited coal mining that will adversely impact a publicly owned park or places included in the National Register of Historic Sites unless an entity qualifies as having "valid existing rights" (VER) to mine coal, or if the regulatory authority and agency with jurisdiction over the area jointly agree to waive the prohibition. Because the threshold decision of whether a proposed coal mine will adversely affect a protected area is pivotal, the NPS would like to have a substantive role in making that determination with respect to areas under its jurisdiction. Currently, under OSM regulations, the sole responsibility for that decision rests with the regulatory authority be it a state agency or OSM. At the August 22 meeting noted above, Branch staff and Barbara West with Assistant Secretary Frampton's office stated that the NPS was in the best position to evaluate impacts to park resources and values and urged OSM to give park managers a substantive role in making that determination. While our proposal was coolly received, we continue to believe that OSM will consider an alternative proposal that retains a strong role for the regulatory authority while also giving the NPS a substantive role. The Branch will work with OSM staff to craft such an alternative for analysis in the EIS on the VER rulemaking. (McCoy)

Branch Assisting OSM in Preparation of EIS on Valid Existing Rights Rulemaking - The Branch is coordinating NPS participation with OSM in development of a draft EIS on the rulemaking to define "valid existing rights" (VER) to mine coal under 522(e) of the Surface Mining Control and Reclamation Act of 1977 (refer to relevant issues above). On August 23-25, staff traveled to Washington, D.C. and represented the NPS in interagency meetings hosted by OSM to discuss in detail the EIS process. Discussion topics included information and data needs, alternatives, agency roles and responsibilities, target dates for interim and final products, and legal and policy issues. Branch input to the EIS will include identification of all park units potentially effected by internal and external coal exploration and development relative to the various alternatives, environmental impacts of such operations on park resources and values, active participation in all interagency meetings concerning the EIS process, and review of draft EIS chapters to ensure NPS issues are identified and analyzed. OSM's target date for completion of the final EIS is December 15, 1995. The Branch will likely request information and data from potentially effected park units in the near future. (Moss, Woods)

Lawsuit Challenging NPS's Authority to Regulate Non-Federal Oil and Gas Operations at Padre Island Enters Preliminary Stages of Litigation - Dunn-McCampbell Royalty Interest, Inc., mineral estate owners at Padre Island National Seashore, Texas, filed suit against the NPS alleging, among other things, that the

Service has no authority to regulate non-Federal oil and gas operations on Federal surface estate. On August 10, Plaintiffs' attorneys, the United States' lead attorney, a representative of the Department of the Interior Solicitor's Office, and Branch staff met via teleconference to discuss the nature and basis of the Plaintiffs' claims and defenses and the possibilities for a prompt settlement or resolution of the case. While all parties asserted their positions as to the nature and bases of their claims and defenses, little progress was achieved toward prompt settlement or resolution of the case. On August 29, Plaintiffs' attorneys and the United States' lead attorney appeared before Judge H. W. Head, Jr. of the Federal District Court for the Southern District of Texas in a pretrial conference. Judge Head began the proceeding by informing the parties he would withdraw himself from the case due to conflict of interest. This surprising development means that the case remains on hold until another judge is formally assigned the case. The new judge will likely assign another date for another pretrial conference. These developments may stall the litigation for a period from one to six months. Branch staff will continue to work closely with the lead United States attorney and the Solicitor's Office on this matter. (Kassman, McCoy, Shaver, Woods, Boucher, O'Dell)

Director Forwards Proposed Revisions to 36 CFR 9B Regulations Governing Non-Federal Oil and Gas Development in Parks To Assistant Secretary Frampton for Signature - On August 9, Director Kennedy signed a memorandum transmitting the draft proposed rulemaking package to Assistant Secretary Frampton. The NPS has long sought to revise its existing regulations at 36 CFR Part 9, Subpart B, governing non-Federal oil and gas development in parks. Foremost among the changes sought is the elimination of regulatory provisions that exempt approximately 65% (379) of the 580 non-Federal oil and gas operations in parks from the regulations. Barbara West, Special Assistant to Assistant Secretary Frampton, has been assigned to review the package. She has a wealth of experience working on regulatory matters and park minerals management issues. We are hopeful that the Assistant Secretary will approve the proposed revisions so the Branch can release the package for public comment. (McCoy)

Branch Presents Oil and Gas Management Course to U.S. Fish and Wildlife Service Managers - At the request of the U.S. Fish and Wildlife Service (USFWS), Branch staff traveled to Hackberry, Louisiana on August 22-26 to present an oil and gas management training course to refuge managers and staff, and regional USFWS managers. The purpose of the training was to foster a comprehensive understanding of oil and gas operations from a legal, regulatory, technical, and environmental impact perspective. Topics included petroleum field exploration and development procedures, equipment and technology, impact mitigation and reclamation techniques, applicable laws and regulations, enforcement options, and land use planning. In addition, the Refuge Manager at Sabine National Wildlife Refuge hosted an all-day field trip to an active oil and gas well

drilling operation and several production operations located in environmentally sensitive marshlands on the refuge. The course provided an excellent opportunity for substantive interagency discussions on oil and gas management issues of common concern. (Boucher, Heise, O'Dell, Woods)

Interagency Agreement to Enhance Coordination on Mine Waste Issues From Active Mines Nears Completion - Staff from the Environmental Protection Agency, Bureau of Land Management, NPS and the Forest Service met to discuss final changes to a proposed Interagency Agreement designed to foster close cooperation amongst the parties on mine waste issues from active non-coal mineral development activities. In addition to providing a forum for discussing policy and research matters, the Interagency Agreement provides for cross training amongst the signatories. Each signatory will have three representatives that meet periodically. In addition to the Branch, we anticipate that the NPS's Water Resources Division and possibly the Air Quality Division or NPS Hazardous Waste Office will represent the Service at the meetings. (McCoy)

NPS Participates in Department of the Interior Survey of Potentially Contaminated Abandoned Mineral Land Sites - The Department of the Interior, after being criticized for its lack of information on contaminated facilities under its jurisdiction, is attempting to get a handle on the problem. The first step is a preliminary inventory. A part of that inventory includes abandoned mineral extraction sites and specifically those sites that may be contaminated. The Branch used the Servicewide Abandoned Mineral Lands database and existing reports and memoranda to compile a preliminary list for the Department. A summary of that information is as follows.

There are 1,315 oil and gas well sites in park units. This total includes 580 producing wells, 689 plugged and abandoned wells, and 46 orphaned wells. It is possible that 289 well sites may be contaminated and are therefore sites where the Federal Government would be involved in remediation actions. The reason this number is high is not strictly because of the condition of these well sites, but rather many of the well operations are not subject to an NPS approved plan of operations including no performance bonds filed with the NPS (e.g., grandfathered operations).

There are 3,456 mining sites in park units, including 42 active mining operations and 824 active and abandoned administrative sand and gravel pits. Of the abandoned mine sites, 101 may have potential contaminants. It is possible that further investigation of such sites will show minimum or no contamination. (Higgins)

Branch has Minerals Development Videos Available for Loan - The Branch recently compiled a video library covering numerous topics concerning mining and oil and gas exploration and development. Subjects pertain to minerals development planning, exploration

and production operations, reclamation, history, laws and regulations, and treatment of abandoned mineral lands. The videos are an excellent resource for training purposes. The Branch prepared a video catalog and sent copies to all regional offices and several park units. The Branch will loan videos to any requesting office for a two week period. For more information contact Judy Geniac at (303) 969-2915. (Geniac)

Branch Distributes Booklet on Takings Law - On August 22, Deputy Director Reynolds signed a memorandum to all regional directors and park superintendents that distributes a booklet explaining the fundamentals of takings law in layman terms. "Takings" is an area of law that has gained significant attention in recent years and is fraught with misinformation and hyperbole. The genesis for takings law is the 5th Amendment of the United States Constitution which states that private property shall not be taken for public use without compensation. Traditionally, takings claims have arisen in the context of local zoning decisions. Recently, such claims have been raised vehemently with regard to environmental regulation. In the memorandum, the Deputy Director urged park managers not to abandon well grounded actions aimed at carrying out the Service's mandates simply because someone alleges a taking. He also urged park managers to work with the Department of the Interior's Solicitor Office when faced with such allegations. For additional copies of the booklet please call the Branch. The booklet was published by the Land and Water Fund of the Rockies. (McCoy)

Restoration, Rehabilitation, Reclamation and Recovery - What Do They Mean? - Branch staff have recently held discussions with several NPS field staff concerning the meaning of the terms restoration, rehabilitation, reclamation and recovery. As "restoration" technology grows in importance, these kinds of discussions are similarly increasing. Apparently, there is little agreement on what the "re-" words mean or how they overlap and differ from each other. To shed some light on this topic, an article by William Jordan III<sup>1</sup>, the editor of Restoration & Management Notes, and founding member of the Society for Ecological Restoration, attempts to put the terms in perspective. Jordan makes the term restoration centrally important because it is the only term that is explicit - precisely why some managers are wary of adopting it. Following is a synopsis of his descriptions:

Restoration - in standard English, to restore something means to bring it back into some prior condition. Ecological restoration, then, means to do this to an ecological system, whether defined as an ecosystem, an ecological community, a landscape, or any combination of these. In practice, restoration means that the area is deliberately returned to conditions and processes representing the ecological zone in which the disturbance lies.

Rehabilitation - refers to making the system work again by allowing systems to function naturally, usually by restoring some attributes. Rehabilitation does not necessarily restore exactly the condition of the pre-disturbance characteristics but does involve establishing geologically and hydrologically stable landscapes that support the natural ecosystem mosaic.

Reclamation - refers to actions that make a degraded site more useful, more attractive, or in some way more desirable. Reclamation does not always imply returning a site to natural conditions and is often the creation of some "desired use." For example, a golf course or parking lot in a sand and gravel pit. Typically, this entails some ecological upgrading of certain processes or functions, such as hydrological function, but stops well short of restoration. Of course, reclamation has historically also meant making lands suitable for agriculture that were not naturally suitable; usually by outright destruction of the natural landscape.

Recovery - refers to the natural or internal capacity of a system for self-repair. A good example is the recovery of vegetation. Sometimes, conditions have recovered to the point where human actions cannot effectively improve conditions further. Some folks mistakenly label recovery as "natural reclamation." Restoration, rehabilitation, or reclamation implies human intervention of some sort.

The above descriptions offer a starting point for folks who are struggling to define project goals in terms of the "re-" words. An important concept to keep in mind is that reclamation and restoration are probably not separate processes, but different phases of an overall process that starts with reclamation and culminates, when appropriate, in restoration. (Steensen)

<sup>1</sup> Jordan, William, R., III, 1992. Those RE-Words: a glossary and a few comments; Land and Water: The Magazine of Natural Resource Management and Restoration; Vol. 36, Nov./Dec. 1992, Fort Dodge, Iowa; pp. 13-15.

#### MIDWEST REGION

The Haydite Pit Is a Stones Throw From Being Donated to Cuyahoga Valley - Negotiations continue between Cuyahoga Valley National Recreation Area, State of Ohio, and the Hydraulic Press Brick Company (Hydraulic) over the Haydite Pit. This pit is part of an active shale mining operation in the boundary of Cuyahoga Valley. To halt a proposal to turn it into a landfill, the State of Ohio intends to buy the pit from Hydraulic. The state will then donate the pit to the town of Independence, who will in turn donate it to Cuyahoga Valley. The park is willing to accept ownership only if Hydraulic agrees to certain terms and conditions. These terms include developing a restoration plan

and posting a performance bond that covers all existing and future mining.

Branch staff reviewed the second draft of the "Terms and Conditions" document and identified two principal and important issues. First, the document overlooked the issue of liability. The main concern here is the serious safety hazard associated with the 300-foot deep pit with nearly vertical walls. Because Hydraulic intends to continue mining on adjacent properties, they must pump the water from the pit to reduce stability problems. Thus, the pit walls remain exposed. In earlier discussions, Hydraulic was to retain responsibility for safety until all restoration was complete and the pit fills with water and becomes a lake. The Branch recommended strongly that the park reintroduce language to the document qualifying where liability will lie. The second issue concerned use of the term "phased restoration." At first we believed that Cuyahoga Valley management was encouraging "phased bonding." Phased bonding refers to a partial bond release upon completion of a specific phase of the restoration, such as backfilling and grading. We now understand that park management actually desires "concurrent restoration." Concurrent restoration means that restoration of mined-out areas must precede any disturbance of new areas. Once the hair-splitting about terminology is over, the odds are that the mighty pit, which will eventually be in a park-like appearance, will belong to the NPS. (Steensen, Cloues, Kassman)

#### PACIFIC NORTHWEST REGION

Shi-Shi Beach Mineral Operator Requests Samples of "Accepted" Plans of Operations - The Branch supplied Olympic National Park, Washington, with copies of hardrock mining and oil and gas exploration and development plans of operations formerly accepted by the NPS as "complete" under the 36 CFR Part 9A and 9B regulations. This action was driven by a request to the park from Kenneth Koenen, the mineral operator representing Scott Watson, the purported owner of specific reserved minerals underlying Shi-Shi Beach, located in a wilderness area of Olympic. Last spring Mr. Koenen submitted a Special Use Permit application to the park containing his proposal to explore for and develop minerals ranging from sand and gravel to gold to oil and gas at Shi-Shi Beach. Based on advice provided by the Branch, Olympic returned the application to Mr. Koenen because of numerous information deficiencies and incorrect statements. The NPS response to Mr. Koenen also cautioned against using the sample plans of operation as "boilerplate" or "fill in the blank" forms for his proposed operations. Olympic has not received a revised proposal from Mr. Koenen to date. (Moss, Woods, O'Dell)

#### ROCKY MOUNTAIN REGION

Branch, Glen Canyon National Recreation Area, and Utah BLM State Office Work Together to Resolve Federal Lease Issue - Branch staff met with Glen Canyon's John Ridenaur and Clive Pinnock, and

BLM staff from the Utah State Office, Cedar City District, and Escalante Resource Area to develop an action plan to address a long standing Federal oil and gas lease inside the park. The lease was originally issued by the BLM in 1969 prior to the lease area inclusion in the park. The BLM has suspended the lease (e.g., stopped the development time clock) for a variety of reasons much of the past 25 years. The lease's history is too long and complex to detail here. However, the most recent suspension was granted with only several weeks remaining on the lease. Essentially the park would like to see the suspension lifted and either have a well drilled or preferably, have the lease expire. The lease holder claims that data the company originally agreed to provide the park for environmental assessment purposes, specifically cultural surveys of the road and pad areas, are too expensive and make it difficult to obtain investors. The BLM is concerned that the company is not making a good-faith effort to develop the lease. Conflicting agency mandates involving resource protection, NEPA compliance, and fair treatment of the lessee made developing an action plan difficult. Through an effective cooperative process, the NPS and BLM agreed to a series of actions and deadlines the operator must meet to show a good-faith effort to develop the lease or risk having the lease expire. The actions allow both agencies to comply with their individual mandates of resource protection and multiple use. The BLM will immediately prepare and send a letter to the operator reflecting the agreed-upon terms and conditions. (Heise)

Branch Assists Fossil Butte Resolve Status of Abandoned Wells - A  
 routine review of the Branch's oil and gas data base revealed an abandoned oil and gas well inside Fossil Butte National Monument, Wyoming. However, no additional information on the well (e.g., plugged, orphaned, reclaimed, etc.) was contained in the file. Branch staff contacted Superintendent Dave McGinnis who provided copies of the park's records as well as recent photographs of the site. The records indicate that the oil well was properly plugged and abandoned, but there is some question about one or two additional nearby wells that were probably drilled to provide water for oil and gas drilling operations. Park staff informed the Branch that there is no apparent resource threat from any of the wells. The Branch will attempt to reconcile the discrepancies in the records as well as determine if additional field work or records review is needed. (Heise, Boucher)

#### SOUTHEAST REGION

Big South Fork Coal Appraisal Nears Completion - The Southeast  
 Region Land Resources Division has been diligently working on the mineral appraisal of approximately 3,882 acres of land in the southwestern corner of Big South Fork National River and Recreation Area, Tennessee. A final review of the contracted mineral appraisal was completed by Branch staff. The appraisal serves as a good example of risk assessment interpretation and the reality of data obtained directly from the market place.



Fair market value determination for purposes of negotiation must weigh such complex factors as erratic coal height, proximity to flooded abandoned mines, distance to the nearest railroad and truck transportation, mine access by shaft or slope entry versus drift entry, lack of data, the quality of the coal (e.g., Btu's, ash, moisture, sulphur), size of reserves, reserve versus resource, historic record of declining local production, prior drilling results, and permitting restrictions. With an absence of good comparable sales (inactive market), the income producing potential of the property must be realistically modeled and derived from a market generated rate of return on a royalty income stream that is based on a realistic level of risk. Mineral appraisals for all commodities necessitate careful evaluation of all factors influencing market value to protect the rights of the private owner as well as the resources of the public. (Cloues)

#### SOUTHWEST REGION

Pipeline Company to Remedy Exposed Natural Gas Pipeline in Big Thicket - Transcontinental Pipe Line Company (Transco) plans to replace a section of its 30-inch natural gas pipeline through the Lower Neches River Corridor Unit of Big Thicket National Preserve, Texas. Erosion and changes in the Neches River channel have exposed a section of Transco's existing pipeline, creating safety and resource protection concerns. Earlier this year Transco completed soil core sampling and analysis at five locations in the preserve to determine the feasibility of using horizontal drilling technology to install a new section of pipeline 100 feet beneath the Neches River near the existing pipeline rights-of-way. Transco performed the core sampling under an NPS-approved plan of operations pursuant to the regulations at 36 CFR Part 9B. Favorable sampling results proved Transco could install the new pipeline section without any surface disturbance inside the preserve. Transco requested the NPS waive the requirement for an approved plan of operations for the pipeline replacement project due to no direct impact to preserve surface resources. The Branch agreed with the preserve's assessment that the operation would likely have no adverse environmental impact to resources and values of Big Thicket. Therefore, the Branch supported a decision to waive the requirement for a plan of operations for the new installation phase of the project. Transco intends to restore lands in the existing rights-of-way and will submit a comprehensive plan of operations for such action in the near future. (O'Dell)

More Oil and Gas Wells Proposed at Padre Island - EP Operating Limited Partnership is the latest company to submit to the NPS a proposed plan of operations for drilling an exploratory oil and gas well at Padre Island National Seashore, Texas. Branch staff are currently assisting the park in the evaluation of the proposed plan. Park, Branch and regional office staff are also completing the analysis of another oil and gas well drilling operation proposed in the park by Bright and Company. The Bright

and Company plan of operations is nearing the decision stage in the process. The operators could drill both wells this year if the Regional Director approves the proposed plans. Park personnel, to their credit, worked closely with both operators to develop well organized and comprehensive plans of operations. If the proposed drilling operations are approved, NPS enforcement and operator compliance with the plans should provide excellent resource protection while allowing the operators to exercise their nonfederal oil and gas rights. (O'Dell, Boucher)

Branch Prepares Response to Congressional Inquiry Related to 9B Lawsuit at Padre Island - Branch staff drafted a response to an inquiry from Senator Phil Gramm (R-Texas) on behalf of a constituent who owns an interest in oil and gas rights at the park. The constituent's letter focused on his frustration with being unable to develop oil and gas rights at the park without having to obtain NPS approval. Because of the on-going litigation at Padre challenging the Service's ability to regulate non-Federal oil and gas activities, the NPS informed the Senator that we were not at liberty to discuss the particulars of his constituent's letter. The response did, however, provide the Senator with an overview of the Service's statutory authority to regulate oil and gas development at the park. It also gave him information on the number of operations approved at the park since 1966, two years after the park's creation. The Regional Director signed the response to the Senator on August 4. (McCoy)

#### WESTERN REGION

Branch Assists Western Region in Planning for California Desert Parks - At the regions request, Branch staff are actively involved in early planning efforts for an orderly transition of minerals management responsibilities from BLM to the NPS for lands defined in the California Desert Parks Bills. Branch staff commented on the Draft Task Directive for the California Desert BLM/NPS Transition and Coordination Action Plan in terms of specific minerals management issues and other major issues that include minerals management components. The Branch identified several important needs to develop a workable and effective transition strategy for both the BLM and the NPS. These needs include, but are not limited to (1) sharing and transfer of all minerals-related records, data, permits, plans of operations, and other administrative information, (2) surveying and delineating the location and ownership of outstanding mineral rights, (3) developing a process to bring existing operations into compliance with NPS regulations, (4) defining resource impact issues at existing operations or abandoned operation sites, and determining the need for further site investigations, (5) defining the NPS minerals management planning strategy in light of anticipated legislative mandates governing the management of these rights, (6) formulating an action plan for the mining claim validity program including a priority system, workload estimate, and staffing needs, (7) defining an abandoned mineral lands program, and (8) accurately assessing funding and staffing at a level

commensurate with the importance of minerals management issues. The Branch also met with NPS Transition Team member Frank Buono and prepared a detailed list of specific minerals management transition tasks in priority order to present and discuss with BLM representatives on the Transition Team. The Branch will continue to provide technical, policy, environmental and regulatory assistance to the Transition Team. (Woods, Shaver, Ziebenbein, Covington, McCoy, Moss)

Mineral Report on El Portal Administrative Site in Yosemite  
 submitted to the BLM - Branch staff completed a "Mineral in Character Report" for the BLM, California State Office, on the El Portal Administrative Site in Yosemite National Park in support of a continuing land withdrawal. In 1960 about 406 acres of public land were withdrawn from all forms of appropriation under the public land laws, including general mining laws, leasing laws and mineral material disposal laws and under the Acquired Lands Leasing Act. The BLM is in the process of reviewing all land withdrawals that were in existence at the time the Federal Land Policy and Management Act (FLPMA) was passed in 1976. The park wishes to continue the withdrawal and the mineral report recommends the continuation. In addition the report recommends that the NPS seek permanent transfer of the lands from the BLM and also that an abandoned mine lands (AML) inventory be done on the Administrative Site. (Covington)

Geothermal Well Inspection at Lassen Volcanic - At the behest of Superintendent Gilbert Blinn, Branch personnel participated with park staff in a multi-disciplinary field inspection of an abandoned geothermal well in Lassen Volcanic National Park, California. The well is of particular concern because it is not properly plugged and the site remains unreclaimed. The onsite meeting allowed a thorough field investigation of the site and provided the team of resource, plugging, and reclamation specialists to review the well site conditions and determine a strategy for correcting the problems. The Branch is preparing for the park a detailed report on the investigation including recommendations for plugging of the well and options for pad remediation and reclamation. (Boucher, Ziegenbein)

#### PROFESSIONAL DEVELOPMENT

Branch Staff Attend CERCLA Training Course - Branch staff traveled to Eastham, Massachusetts to attend a three-day NPS training course on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Branch is expanding its knowledge base to include the CERCLA process in order to more effectively advise park managers on how to address hazardous substances issues associated with mining and minerals operations. Over the span of three days, course instructors walked approximately 20 park resource managers through the statute's major provisions and conducted an ongoing exercise in which course participants analyzed and responded to hypothetical emergency CERCLA spill and historical CERCLA site situations. On

the last day, course participants engaged in a role playing exercise in which an Environmental Protection Agency project manager, park superintendent, park CERCLA coordinator, town mayor, industry lawyer, Department of Energy representative, and a nonprofit environmental group representative argued over the most effective remedies to be employed at an emergency spill site. The instruction and role playing exercises were effective in providing a general overview of the CERCLA process and the finer aspects of procedures. Branch staff are available to assist park personnel on CERCLA issues related to mining or mineral development activities. (Kassman, Moss)

Branch Staff Attend Watershed Restoration Training at Redwood -  
Branch staff attended a field seminar at Redwood National Park on restoration of anthropogenically disturbed lands. The course concentrated on the geomorphological aspects of restoration, repeatedly stressing the concept that restoration of the physical landscape sets the stage for recovery of the biological systems. Physical treatments involve restoring soils and hydrologic systems. Redwood staff have been involved in the restoration of abandoned logging roads and rock pits since 1977, and have accumulated a large data base on the effectiveness and costs of a variety of reclamation techniques. They are an excellent source of information for park units involved in reclamation, restoration, erosion prediction, road inventory methods, and use of heavy equipment in the decommissioning and reclamation of roads, mines, and stream courses. The Branch will apply the information and techniques to the review of reclamation sections contained in proposed plans of operations for mineral development in park units. Redwood teaches about five courses on land restoration techniques annually. For information on upcoming courses and the Redwood reclamation program, contact Terry Spreiter at (707)488-2911. (Smith, Geniac)