

GEOLOGIC RESOURCES DIVISION
NATIONAL NATURAL RESOURCES PROGRAM CENTER
Bimonthly Report - August/September 1995

Mailing Address:
National Park Service - GRD
P.O. Box 25287
Denver, Colorado 80225-0287

Delivery Address:
National Park Service - GRD
Room 221
12795 West Alameda Parkway
Lakewood, Colorado 80228

Telephone:
Denver (303) 969-2090
FAX (303) 969-2822

GEOLOGIC RESOURCES: GENERAL

Division Hosts Geologic Resources Task Group Meeting - An advisory work group for geologic resources management and disturbed lands reclamation met in Denver on September 26-28, 1995. Group members included Marsha Davis (Geologist, Columbia Cascades SSO); Kathy Jope (Chief, Natural Resources, Columbia Cascade SSO); Ted Fremd (Paleontologist, John Day Fossil Beds NM); Suzette Kimball (Associate Field Director, Science, Natural Resources and Ecosystem Management); Terry Spreiter (Supervisory Geologist, Redwood NP); Ron Thoman (Chief, Division of Interpretation, Yellowstone NP); John Pallister (Geologist, U.S. Geological Survey); and Division managers and staff, including Dave Shaver, Bob Higgins, Carol McCoy, Sid Covington, Bruce Heise, Ron Kerbo, Lindsay McClelland and Dave Steensen.

The first two days of the meeting consisted of a general discussion of geologic resources functional areas and potential roles and/or projects for the new Geologic Resources Division. The third day the group discussed staffing and funding constraints and focused on developing recommendations for Division action in the next year or two. Overall, the group agreed that there is a significant need for field technical assistance on geologic resource management issues. At present there are less than 50 NPS employees with geologic science degrees and an additional 140 employees with work experience addressing geologic concerns, primarily minerals management. NR-MAP data identifies the need for 638 geologic resource management specialists in parks. Also, the resource management plan (RMP) database shows geologic projects are funded at about 20% of the level of identified needs. It was noted that, due to limited staff capability at the park level and deficiencies in geologic aspects of the RMP program, the RMP geologic projects currently listed are likely to be underestimated. However, over 930 RMP projects appear in the database and about 400 of these projects related to disturbed land restoration. Other important RMP project areas include cave management, coastal processes, paleontology, and soil science.

Due to limited NPS staffing, much of the work group discussion addressed the need to partner with external agencies in order to access specialized geologic resource management skills. In addition, extensive discussion involved the need to increase

awareness of NPS geologic resources - with DOI and NPS management, with NPS field staff, and the public through improved education and interpretive activities. The work group session concluded with development of recommendations for near-term actions and emphasis areas. The Division is currently evaluating the recommendations relative to staffing and funding constraints, and continuation of field services on internal and external minerals management issues. Recommendations are as follows:

- Prepare a mission statement for the new Geologic Resources Division and publicize role and function in the Service
- Build the Division on the foundation of the former Mining and Minerals Branch
- Facilitate networking and cooperative efforts by NPS geologists
- Identify key Division contacts for major topical areas
- Increase awareness of geologic resources and the Division among all NPS employees
- Formulate a strategic long-term plan for the Division
- Develop/update guidelines for geologic research and geologic resources management
- Develop key internal and external partnerships
- Coordinate promulgation of regulations and preparation of comments on legislative actions related to geologic resources
- Form a geologic resources advisory group

National Cave Specialist Joins the Group - Ronal Kerbo, Cave Management Specialist in the Southwest System Support Office, has officially transferred to the Geologic Resources Division. In his new position with the Division, Ron's specialized cave and karst expertise will be available to park units on a national basis. Ron also brings additional experience in oil and gas field operations to the Division. He intends to move to the Denver area in January 1996. Welcome aboard Ron!

U.S. Geological Survey Committed to Geology Projects in Parks - The U.S. Geological Survey's National Cooperative Geologic Mapping Program will redirect \$2 million in staff time and support funds to projects in National Park System units during FY 96. The projects, selected from proposals submitted last spring by each of the 10 former NPS regional offices, focus on key resource management and interpretation needs identified by park managers. Park units selected for projects include Golden Gate, Joshua Tree, Grand Canyon, Lake Mead, El Malpais, Ozark, Buffalo River, Shenandoah, C & O Canal, Great Falls, and Great Smoky Mountains. Division staff will continue to explore opportunities for additional highly ranked proposals through other Survey offices. (McClelland)

Division Taps Servicewide Databases to Determine Geologic Resources Management Needs - To evaluate current Servicewide geologic resource management needs, Division staff examined Resources Management Plan project statements, Investigators Annual Reports, and the Natural Resource Management Assessment Program (NR-MAP) databases. Together they provided an encompassing view of how NPS

resource managers picture geologic project, research, and staffing needs. Results of the queries were presented at a geologic advisory task group meeting held in Denver (see Division Hosts Geologic Resources Task Group Meeting above). Division staff believe the data underestimates NPS project, financial, and research needs. Despite this belief, the identified needs are certainly interesting. Over 900 geologic projects are identified at a projected cost of more than \$116 million over the next four years. Current project funding is less than 20% of this amount. Millions of private and federal dollars are being spent on a surprisingly wide spectrum of geologic research, however, the short term or long term applicability of some research to resource management issues is not specifically identified. More than 600 FTEs are needed to properly manage geologic resources in over 200 park units. Currently there are less than 50 NPS employees with degrees in geology, and many of these are not employed as resource specialists. The four resource management categories that represent the highest current expenditures, estimated funding needs, FTE requirements, and show the largest number of high priority projects consist of disturbed lands restoration, geomorphology (cave management and glacial, coastal, fluvial, and shoreline processes), soils, and paleontology. (Geniac, Smith)

Number of "Significant" Geologic Parks Increases - Shortly after expansion of the Division's role to include geologic resources management, the Division began tabulating a list of park units with known significant geologic features and examples of geologic processes. The initial list of such parks was based on information presented in a briefing statement prepared several years ago. Approximately 90 park units were included on the first list. The Division broadly circulated the list to known geoscientists in the Service and to recipients of this report. Based on information received from the field, the latest version of the list includes 120 park units. Several respondents suggested expanding the current table to a "report" consisting of a brief summary about the geology of each listed park. The Division is considering preparing such a report by extracting pertinent geology summaries from General Management Plans and Resource Management Plans. If you have further suggestions, or would like to obtain a copy of the current park list, please contact Bob Higgins. (Higgins)

Division Compiles List of Nearly 200 NPS Geoscientists - As the Division began expanding its role in the area of geologic resources management, particularly in terms of serving as a focal point for information transfer to the field, we quickly realized that the NPS needed to establish a geoscientist network. As a first step toward this goal, the Division prepared an initial list of agency personnel either possessing a degree in the geologic sciences and/or are actively involved in geologic resource issues through natural resources management or interpretation programs. The list was broadly circulated in the NPS via CC:Mail for additions and corrections. Many thanks to all who took the time to respond. The NPS geoscientist list now includes nearly 200 employees. Contact

Bob Higgins if you would like to receive a wordperfect file of the list. (Higgins)

MINERALS MANAGEMENT: GENERAL

Several Mining Claimants Seek Last Minute Waivers From Payment of Maintenance Fees - Under Federal statute and Bureau of Land Management regulations, all holders of unpatented mining claims, tunnel sites and mill sites on Federal land must pay \$100 per claim or site by August 31 of each year to hold their rights in good standing. With a few narrow exceptions, failure to make the requisite payment in the allotted time results in forfeiture of one's claim or site. One exception to the annual maintenance fee requirement is the small miner waiver. To be eligible, claimants must certify in writing to the appropriate BLM state office that they hold 10 or fewer claims and have or will conduct assessment work by the date the fees are due (i.e., August 31). To conduct work inside a unit of the National Park System that fulfills the assessment work requirement, such claimants must have an approved plan of operations in conformance with NPS regulations at 36 CFR Part 9, Subpart A. Based on information obtained from the BLM, claimants in the following park units are seeking small miner waivers: Mojave National Preserve, Death Valley National Park, Joshua Tree National Park, Denali National Park and Preserve, Wrangell-St. Elias National Park and Preserve, and Gates of the Arctic National Park and Preserve. NPS staff in the Division and the Alaska System Support Office are working with BLM staff to determine whether the claimants met the necessary BLM and NPS regulatory requirements to be eligible for the small miner waiver. (McCoy, Covington, Fulwyler)

Department of Justice Commends NPS Staff for Help in Defending the Federal Government's Authority to Regulate Non-Federal Oil and Gas Development at Padre Island - On August 7, 1995, William Cohen, Chief of the Department of Justice's General Litigation Section, extended his thanks in writing to Division and park staff that aided the Department in successfully defending the Federal Government's authority to regulate non-Federal oil and gas development at Padre Island National Seashore. In his letter, Mr. Cohen drew attention to both the legal and technical assistance provided by the NPS. The litigation known as Dunn-McCampbell Royalty Interest, Inc. v. National Park Service was the first legal challenge to the Service's ability to regulate non-Federal oil and gas development at Padre Island and other parks in the National Park System. Dunn-McCampbell which owns extensive subsurface oil and gas rights at the park sought to be able to develop those rights unfettered by NPS regulations at 36 CFR Part 9, Subpart B. The Federal District Court Judge resoundingly rejected the plaintiffs' challenge thereby preserving the Service's ability to protect park resources and visitor values. (McCoy, Kassman, Shaver, Woods, Heise, O'Dell)

Division Seeks Blanket Approval from Solicitor's Office for the Field to Publish Federal Register Notices of the Availability of

Mining Plans of Operations - The Division prepared and forwarded a memorandum to the Solicitor's Office for review and signature that would streamline the clearance procedures for getting notices of the availability of mining plans of operations under the Service's 36 CFR Part 9A regulations in the Federal Register. Typically, before a document can be published in the Federal Register it must undergo the review of the Solicitor's Office for legal sufficiency. For routine matters, this becomes a repetitive and often time consuming step. If approved, the memorandum would grant the field blanket approval of the legal sufficiency of Federal Register notices in compliance with 36 CFR §9.17. The Solicitor's Office has indicated that it does not see any impediments for granting such blanket approval and hopes to act on the request in the near term. The Division modelled the memorandum after the work of Linda Dansby in the Southwest System Support Office to streamline the public notice requirement contained in the Service's non-Federal oil and gas regulations at 36 CFR Part 9B. (McCoy)

NPS Identifies Issues for Discussion at Upcoming Interagency Meeting on Mining - In June, an interagency agreement was signed by the NPS, Bureau of Land Management, the Forest Service and the Environmental Protection Agency. Under the agreement, designated agency representatives will meet at least twice a year to discuss and identify mineral development initiatives conducive to mutual cooperation. Such initiatives range from research to rulemakings. In September, Division branch managers participated in several conference calls with their counterparts in the other agencies to discuss the protocol and agenda topics for the first meeting of agency representatives to be held in October. The managers nominated the following topics for discussion and follow-up attention: 1) the establishment of a mechanism to enhance the working relationship between technical and legal staff - Too often in the mineral arena, there is a lack of cohesiveness between legal and technical staff assigned to address a given problem. Upper level management in all the above noted agencies could help enhance the interaction between the attorneys and technical staff so as to improve decision making in all the agencies, 2) the initiation of an ecosystem approach to the use of sand and gravel for various construction projects such as roads or visitor centers - By working in unison, Federal land managers may be able to lessen the environmental impacts of proposed development projects by obtaining needed sand and gravel from areas that lack sensitive environmental resources and that are conducive to successful reclamation, 3) the conduct of 1 to 2 pilot projects for remediating past oil and gas contamination - The NPS is currently looking into remediating soil and ground water contamination at Padre Island National Seashore (Texas) and would like to benefit from the research efforts underway in other agencies. Under the interagency agreement, a multi-agency initiative could be commenced to address such problems with the contamination problems at Padre Island serving as pilot projects, and 4) public participation at the interagency meetings. (McCoy, Higgins, Woods)

NPS Gains Vote on BLM Mineral Examiners Certification Panel - Division staff participated in the Bureau of Land Management's Mineral Examiners Certification Panel meeting held on September 13-14 at the National Training Center in Phoenix, Arizona. Prior to the meeting the "Interagency Agreement between the Bureau of Land Management and the National Park Service for the Administration of the Mining Law of 1872 as Amended, on Lands Within the National Park System" was updated and revised to make the NPS representative a voting member. Up to this time the NPS representative was an "ad hoc member" without voting privileges. However, one of the first items on the panel agenda was to vote for making the Park Service representative a full voting member. The panel also welcomed two new members, Vic Dunn from the BLM Winnemucca District Office and Roger Haskins from the BLM Washington Office. Roger had been one of the original panel members.

1996 Budget Reconciliation Bill Purports to Generate Mining Revenue for American Taxpayers - At the request of the NPS Washington Office of Legislation, Division staff reviewed Part H of the House 1996 Budget Reconciliation Bill. Part H of the bill bears the title, "The Mining Law Revenue Act of 1995." Despite its encouraging title, this part of the budget bill does little to generate revenue and in fact erodes the revenue generating features of the current \$100 per claim maintenance fee requirement (see above entry). The bill does the latter by making it much easier to be eligible for waivers from payment of the annual fee. The bill also fails to achieve its revenue generating potential by only requiring claimants to compensate the American people for the value of the surface land, not the minerals in the event claimants take their claims to patent (i.e., obtain fee title ownership). Last year, for example, the American Barrick Company paid the American people \$9,765 for claims in Nevada containing gold worth approximately \$10 billion. Finally, the bill's proposed royalty regime on extracted minerals from unpatented mining claims falls far short of being sufficient to run a bona fide Abandoned Mine Land Fund. The bill calls for a 2.5% royalty based on a net smelter return value that is calculated after subtracting out a broad array of allowable deductions, leaving little money to run the Fund. (McCoy, Covington)

Division Recognizes Outstanding Legal Counsel in Padre Island Lawsuit - On June 22, 1995 the Federal District Court for the Southern District of Texas ruled that the National Park Service does have regulatory authority over nonfederal oil and gas operations at Padre Island National Seashore. This victory represents not only the validation of vitally important NPS regulatory authority, but will also operate prospectively to stifle similar legal challenges to other federal agency's regulatory authority over private activities. The three Department of Justice attorneys who orchestrated this victory, Brian Ferrell, Sandra Zellmer, and Bret Birdsong, were assigned this complex and highly visible case in the midst of pre-trial litigation. A successful case demanded a quick study of the salient issues and rapid development of a sharply focused litigation strategy. These

attorneys were, obviously, more than equal to the task. In recognition for their efforts, the Division prepared a letter of appreciation addressed to the Assistant Attorney General for the Department of Justice's Environment and Natural Resources Division. The Director signed the letter on September 13, 1995. (Kassman, Shaver, McCoy, Woods, Heise, O'Dell).

Division Evaluates Draft NPS Proposed Rights-of-Way Regulations -

The Division evaluated a draft proposal to update the Service's rights-of-way regulations contained at 36 CFR Part 14. The Division focused on the interface between the Part 14 regulations and the Service's regulations at 36 CFR Part 9, Subpart B governing non-Federal oil and gas development in parks. Specifically, the Division requested that the proposal clarify that pipelines associated with oil and gas operations in parks are governed by the 9B regulations as opposed to the Part 14 regulations. Also, the Division urged the drafters to consider regulating currently unauthorized transpark pipelines under the Part 14 regulations. The Division based its recommendation on its belief that statutory authority exists under §3 of the NPS Organic Act to control activities associated with an unauthorized pipeline. Unauthorized transpark pipelines are pipelines that postdate the creation of a park where a park erroneously gave the pipeline owners permission to cross the park without specific Congressional authority to do so. While such pipelines should not have been sited in parks, they nevertheless were and the NPS should take affirmative steps to assure that the operation of such pipelines does not adversely impact park resources. The Solicitor's Office has been requested to provide an opinion as to whether the NPS Organic Act provides sufficient authority to regulate these pipelines. (McCoy)

Division Analyzes Questions Regarding NPS Authority to Regulate Rights-of-Way in Parks -

Because questions continue to arise in a mineral context regarding the Service's authority to regulate access over rights-of-way and easements in parks, the Division is examining policy, regulatory and legal considerations related to this issue. Currently, two divergent Regional Solicitor memoranda exacerbate the confusion by advising parks to take inconsistent courses of action. Several Federal District Courts have addressed this matter and conclude that the Federal Government has authority to regulate activities in rights-of-way and easements on Federal lands. However, NPS policy on this matter, as expressed in regulations and intra-agency memoranda, is less clear. To assure the protection of park resources and consistent treatment of private parties, the NPS, with assistance from the Solicitor's Office, needs to provide clear guidance to parks on how to handle uses of rights-of-way and easements. The Division intends to bring attention to this need shortly. (Fulwyler)

Division Participates in International Association of Geophysical Contractors' Annual Conference -

The International Association of Geophysical Contractors (IAGC) invited the Division to participate in their annual Environmental and Safety Compliance Conference. The Division had previously contributed to IAGC Environmental

Guidelines in terms of impact mitigation techniques. Division staff prepared a talk on regulatory considerations and low impact data acquisition methods in National Park System units. Similar presentations were made by other agencies including the Bureau of Land Management, U.S. Forest Service, U.S. Fish and Wildlife Service, and several state agencies. The Division's presentation was well received and additional information was requested by several geophysical contractors and state agencies. (Heise, Woods)

ABANDONED MINERAL LANDS: GENERAL

BLM Intends to Offer Abandoned Mine Lands Management Training at National Training Center - The Bureau of Land Management's National Training Center located in Phoenix, Arizona, is planning to offer a course on abandoned mine land (AML) inventory techniques this year. Jinx Fox, BLM minerals policy analyst, previously on detail to the Division in Washington, D.C., is coordinating this effort for the BLM. The Division will advise the field when more information of the course becomes available. The Division encourages park staff with collateral duties in abandoned mine inventory, characterization, compliance and mitigation to consider this training. (Higgins)

NPS to Participate in Interagency Bat Management Program - Division staff accompanied the Associate Director for Natural Resources Stewardship and Science at a meeting chaired by Bat Conservation International (BCI) in Barre, Pennsylvania, on August 16-18. BCI's purpose for the meeting was to solicit support from several Federal agencies for the "Masters of the Night Skies" project. The NPS committed to providing project funding support. In return, BCI will provide the NPS with technical support for management, conservation, and interpretation of bat populations in park units. BCI will customize existing educational materials to implement national and regional public awareness projects, and provide a wealth of information for agency participants and the public through a new "World Wide Web" homepage. Project funding represents a combination of shared Federal agency contributions and money raised by BCI from private sources. (McClelland)

Industry Initiative to Fund Reclamation of Abandoned Gold Mines is Still Alive - The concept is still alive as several gold mining companies are participating in an environmental working group to explore the possibility of establishing an abandoned mine fund to underwrite the clean-up of abandoned mine sites. The vast majority of abandoned mines in the United States were operational prior to current environmental standards, and as such the legacy of toxic waste and safety hazards remains. CEOs representing many of the industry's gold mining companies attended a September meeting in Denver, Colorado, to discuss the concept of an industry-sponsored initiative to fund reclamation of abandoned gold mines. The concept received favorable discussion and support. Following the meeting a representative of Homestake Mining Company contacted the Division to discuss the possibility of a cooperative initiative with the National Park Service. The Division will pursue this

cooperative venture, however, significant negotiations must take place and a few legal hurdles exist. The Division is exploring the prospect of involving the National Park Foundation as a non-profit third party to consummate the partnership. While these negotiations are taking place the Division is preparing a priority list of projects at abandoned gold mines for the NPS based upon the Division's Servicewide AML inventory database. The Division has identified candidate projects in 26 park units, and has contacted respective park managers via CC:Mail to further identify mitigation and reclamation needs. (Higgins)

Interior's "People, Land and Water" Publishes Article Written by Staff - The September 1995 issue of People, Land and Water, a newspaper published by the Department of the Interior, sported a full page spread on the NPS's abandoned mineral land reclamation program entitled "Healers of the Earth." Vera Smith, a Division geologist, wrote and submitted the article. Following distribution of the newspaper the Division has received numerous phone calls from land management professionals around the nation seeking additional information and assistance on abandoned mineral land issues. (Smith)

ALASKA FIELD AREA

Division Provides Technical Assistance to Katmai on Administrative Gravel Extraction Plan - Katmai National Park & Preserve staff, in conjunction with Denver Service Center, are preparing an administrative gravel extraction plan to analyze in-park mining of mineral materials for park development projects. The park needs the material for reconstruction and maintenance of The Valley of Ten Thousand Smokes Road, and also for new construction proposed in the park's Development Concept Plan. Division staff are providing technical assistance to the park and DSC by inventorying over 50 existing extraction sites, characterizing the quality and quantity of available material at each site, preparing site closure recommendations and reclamation prescriptions, and developing a mining and reclamation plan for each of the remaining active extraction sites. Division staff will also prepare comparative cost analysis of in-park extraction versus importation of material as required in Special Directive 91-6. In addition, Division staff participated in a meeting with the Federal Highway Administration held in Vancouver, Washington. The Federal Highway Administration is responsible for incorporating NPS mining and reclamation design specifications into contract documents. (Ziegenbein)

INTERMOUNTAIN FIELD AREA

World Heritage Delegation Visits Yellowstone to Investigate Threats from Proposed New World Mine - Four delegates from the World Heritage Centre visited Yellowstone National Park in September to learn more about possible threats to the park from the proposed New World Mine. The visit by the delegation was prompted by a letter sent to the World Heritage Centre by the National Parks and Conservation Association (NPCA) underscoring concerns of adverse

impacts to the park and surrounding area from the New World Mine. NPCA requested in the letter that the World Heritage Commission place Yellowstone on the list of World Heritage sites "in danger." Yellowstone became a World Heritage site in 1978. By way of this special designation, the United States has made an international promise to protect the resources of Yellowstone. The three day meeting, hosted by the park, featured presentations by the Forest Service, Montana Department of State Lands, Yellowstone Superintendent Finley, Dave Shaver of the Geologic Resources Division, Dan Kimball of the Water Resources Division, EPA, and a host of environmental groups and private parties. Company officials from Crown Butte Mining, Inc., also provided a tour of the proposed mine and tailings impoundment site. The Division's presentation focused concern on the many "unknowns" associated with the mining proposal. These unknown hazards include short and long term effects on ground and surface water resources, the possibility of seismic activity affecting mine facilities, and the harsh climate affecting mining operations. The Division's presentation also addressed past disasters associated with constructed mine tailings impoundments and dams. Although the World Heritage visit has come under fire by some mine proponents, including company-hired lobbyist, ex-Senator Birch Bayh, each of the four World Heritage delegates commended all presenters on providing a very balanced and informative session. The delegates have returned to their respective countries and will meet again in December. At the December meeting, upon receiving the Yellowstone report from the four delegates in attendance at the September presentations, all World Heritage member nations may take a formal vote to determine if Yellowstone should be placed on the list of World Heritage sites "in-danger." We will inform you of the outcome of the vote, if it occurs, in future editions of the GRD monthly. (Moss, Shaver, Cloues, Steensen)

Division Reviews Legal "Options" Paper Re: Protecting Yellowstone From the Proposed New World Mine - A staff attorney on detail to the Department of the Interior Solicitor's Office from the Department of Justice undertook an examination of existing legal tools for protecting Yellowstone National Park from the proposed New World mine. The underground gold mine, proposed by Noranda/Crown Butte, would be located 2 1/2 miles northeast of the Yellowstone border. The "options paper" was intended to inform Department officials of the various approaches the Department could take to protect the park from the possible adverse impacts associated with the mine. In an effort to assist in the options analysis, the Division provided the staff attorney extensive comments. Specifically, the Division discussed the limited benefit of withdrawing lands from the location of new mining claims given the extensive existence of claims in the area already. The Division also recommended that the staff attorney clarify that the economic viability of the proposed mine was not contingent on the company patenting claims (i.e., obtaining fee title ownership). While patent claims are subject to less Federal regulatory requirements, the project does not hinge on this fact. Finally, the Division suggested that the paper contain an expanded

discussion of the legal merits of extending the reach of the NPS Organic Act beyond park boundaries. Specifically, legal arguments exist and have been explored in law review articles for exerting regulatory control over development activities outside a park's boundary based on statutory language contained in the NPS Organic Act. The Division is hopeful that its suggestions will be incorporated into the paper so that the Department will be more fully informed of the full breadth of the available legal tools. (Kassman, McCoy)

World Heritage Convention May Broaden Forest Service's Mandates To Consider Protection Of Yellowstone - Pursuant to the provisions of the World Heritage Convention, Yellowstone National Park is a designated World Heritage Site. World Heritage sites are, among other things, areas of "outstanding universal value from the point of view of science, conservation or natural beauty." Article 4 of the Convention imposes duties upon the United States to ensure "the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage." Article 5 has similar action forcing provisions. There is little question that as a signatory to this Convention the United States is bound by international law to its provisions. The open question in the context of the proposed New World mine is the scope of those duties in light of the risks and uncertainties associated with this mine, e.g., acid mine drainage. Because the mine is located on National Forest lands, the company must obtain Forest Service approval along with other Federal and state agencies before it has all the necessary permits to begin operations. To date, the Forest Service maintains that under its traditional legislative mandates, it has no authority to deny the company a permit for a mining operation on claims held under the 1872 Mining Law. However, if the United States does have a specific duty to protect Yellowstone under Articles 4 and 5 of the World Heritage Convention, one can argue that those duties supplement the mandates of the Forest Service and provide a legal basis for denying approval of the mine. (Kassman, McCoy)

"Friends" Reveal Geologic Secrets in the Yellowstone Area Near Proposed New World Mine - To get rapidly up-to-date on geologic concerns related to the New World Mine proposal outside Yellowstone, Division staff attended the 1995 Rocky Mountain Cell "Friends of the Pleistocene" annual field meeting. The Friends of the Pleistocene is a loose-knit organization of geologists that specialize in surficial or Quaternary geology (which includes the Pleistocene Epoch); hence the name, which is affectionately shortened to "Friends." The Friends get together annually to learn first-hand and discuss current, often cutting-edge, research findings. This year the field trip focused on the late-Pleistocene and Holocene evolution of the Northeastern Yellowstone landscape (that is, the most recent geologic periods up to the present). Understanding the recent geologic history is important in addressing concerns about the New World Mine proposal. For example, the dominant landscape-forming process that replaced the extensive glacial systems that covered the area 12-15,000 years ago

has been the mountain-side denudation processes of debris-flows (a type of landslide) and rockfall avalanches. Of concern then, is how do these episodic events, however infrequent in human lifetimes, affect engineered stream diversion channels or tailings impoundments - especially if they are located in watersheds that drain into Yellowstone? Unfortunately, the frequency of debris-flow or rockfall events is not known within the New World Mining District, nor under what conditions they occur. Field evidence suggests that these processes are as active in the District as in downstream Soda Butte Creek, the primary focus of the field trip, where in-depth research shows that such events are indeed frequent. However, until results of similar studies are available for the District, it is difficult to ascertain whether engineered mine structures can withstand the active processes that shape the area today. Add to this uncertainty the well-studied, but not entirely understood, seismic potential of the Yellowstone Plateau; the poorly understood character of the fracture-dominated groundwater system; and, well, you get the picture. These uncertainties were precisely the subjects brought to the attention of the World Heritage Committee delegation (see "World Heritage Delegation Visits Yellowstone to Investigate Threats from Proposed New World Mine" above). (Steensen)

Division Evaluates Multiple Oil and Gas Well Plan of Operations for Lake Meredith - Division staff evaluated a proposed plan of operations submitted to the NPS by Mustang Oil & Gas Corporation for continuing existing oil and gas operations in Lake Meredith National Recreation Area. The plan of operations covers continued operation of twelve oil wells, two salt water disposal wells, twenty gas wells, and the associated gathering and processing facilities. Mustang purchased the properties in November 1993 and worked closely with park staff to prepare a comprehensive plan. The need for new State of Texas permits due to transfer of ownership caused the operator to lose the NPS regulatory "grandfather exemption" for operating without an approved plan of operations and performance bond. To their credit, proactive participation by park staff in the planning process resulted in a well organized and comprehensive plan. However, the Division identified several issues, including surface reclamation of previously abandoned wellsites, future well plugging and surface reclamation requirements, and cleanup of contaminated sites. The Division provided the Field Director with specific stipulations to apply as "conditions of approval" for the plan. The stipulations are designed to enhance resource protection and the NPS's ability to administer the plan. (O'Dell)

Gold Company Obtains County Permits to Drill Oil Wells near Great Sand Dunes: First Well a Duster, Second Well Started - Lexam Exploration, the gold company looking for oil near Great Sand Dunes National Monument, finally acquired the necessary county permits and drilled their first of two wells about six miles north of the park. Mineral rights in the area are privately owned. Using several industry contacts for information, the Division strived to keep the park and the Rocky Mountain System Support Office informed

of drilling progress and test results. The first well was a "dry hole" and drilling of a second test well began shortly thereafter. Results from these two wells will allow Lexam Exploration to determine if additional drilling adjacent to the park is warranted. The Division also initiated contact with the Colorado Oil and Gas Conservation Commission, the state permitting agency, to advise them of resource protection concerns if future drilling operations are proposed on lands closer to the park. (Heise)

Division Staff Teams-Up with Water Resources Division to Design Remediation Strategies for Contaminated Well Site at Padre Island -

Staff from the Division and Water Resources Division (WRD) met on-site with Padre Island National Seashore staff to investigate several contaminated oil and gas sites in the park and to meet with Convest Energy, operator of one of them. Convest Energy acquired a shut-in oil well and attendant production and storage equipment located on a dredge material spoil island in the Laguna Madre. The well has produced oil for decades and historical operational practices resulted in obvious soil contamination. Upon purchasing the property, Convest Energy elected to ratify an approved plan of operations filed by the previous owner/operator. The ratified plan of operations specifically calls for plugging the well, removing equipment and reclaiming the site. Convest Energy's preferred remediation strategy involves encapsulating the oil contaminated soil beneath clean soil obtained from the spoil island and allowing it to biodegrade over time. While this method will provide for considerable cost savings to the company, Division and WRD staff maintain that more active remediation measures, such as removal of contaminated soil and/or bioremediation, are needed to reduce hydrocarbon concentrations necessary to reestablish vegetation. After WRD researched plant toxicity relative to hydrocarbon concentration, the two offices developed three alternative remediation options for the park's consideration. The alternatives include total removal of contaminated soil, active bioremediation, a possible research project into plant toxicity tolerance, and some combination of the three options. The Division forwarded the alternative strategies to park management. (Heise, with Rosenlieb and Irwin at WRD)

Division Evaluates Supplemental EA prepared by BLM for Geophysical Operation near Hovenweep

- At the park's request, Division staff assessed a supplemental environmental assessment (EA) prepared by the BLM San Juan Resource Area, Utah, pertaining to a proposed geophysical data acquisition operation on lands adjacent to Hovenweep National Monument. BLM revised the original EA prepared on the project following receipt of comments prepared by Division and park staff. The supplemental EA included several impact mitigation actions recommended by the NPS. Using a former USGS expert on vibrations, areas around the monument's sensitive ruins were established that would be off limits to shothole blasting. Additionally, the entire program was redesigned by the contractor so as to minimize the possibility of ruin damage from off-site vibrations. Division comments on the supplemental EA were limited to the lack of a monitoring program and lack of visitor impact

mitigation. It was refreshing to see collaborative efforts between the two agencies in this historically contentious area. (Heise)

Division Assists Southwest Utah Parks Prepare Comments on Dixie National Forest Oil and Gas Leasing Plan - Southwest Utah's Bryce Canyon, Zion, and Capitol Reef National Parks and Cedar Breaks National Monument requested Division comments on a draft consolidation of their comments on the Dixie National Forest Oil and Gas Leasing EIS. Bryce Canyon and Cedar Breaks, surrounded by Dixie National Forest lands, had the most concerns. Viewshed degradation from inside the parks, particularly Bryce Canyon, was acknowledged but not protected in the document. Reasonable oil and gas development scenarios forecasted minimal exploration and development at best, conveniently sidestepping cumulative impacts from full scale development around the park units. Division staff provided suggestions to reinforce the parks' comments on viewsheds, positive socioeconomic benefits from the parks, air quality, and development scenarios. (Heise)

Flash Flood at Theodore Roosevelt: Well Flow Lines Break and Empty Oil and Brine into Little Missouri River - A huge storm hit western North Dakota in late August causing flash floods that severed several oil and gas well flow lines near Theodore Roosevelt National Park. One broken line dumped approximately 720 barrels (30,240 gallons) of crude oil and 120 barrels (5,040 gallons) of brine into a drainage flowing into the Little Missouri River about five miles upstream from the park's North Unit. The affected wells are located in the Little Missouri National Grassland managed by the U.S. Forest Service. Park staff, U.S. Fish and Wildlife Service and North Dakota Fish and Game representatives conducted initial reconnaissance along the drainage and Little Missouri River. Park staff report no obvious surface impacts on inundated lands, however, the investigative team collected soil samples for analysis. Another rumored spill at a well site closer to the park turned out to be true. Park staff believe this spill was never reported to the National Response Center. Park management contacted the Division shortly following the spills to obtain advice on determining impacts to park resources, specifically how to establish a sampling or monitoring program and how to determine if a natural resource damage assessment (NRDA) is applicable. The Division referred them to the Environmental Quality Division's Oil Spill Office for additional information on NRDA, reporting compliance, possible biological impacts, and specific NPS procedures. The spills have triggered an interagency meeting in the near future to discuss area-wide spill response actions. (Heise)

MIDWEST FIELD AREA

Bureau of Land Management's Rejection of Preference Lease Applications Protects Ozark - On September 15, 1995, the Eastern States Office of the Bureau of Land Management, issued a decision rejecting a company's application for leases to extract lead in the Mark Twain National Forest in Missouri adjacent to Ozark National

Scenic Riverways. For over two years, the NPS had expressed its concern that exploratory and commercial development of lead in the national forest could adversely impact the water resources of the park. Preliminary studies are currently underway under the auspices of the US Geological Survey to better assess and understand the hydrologic interconnections in the area. Until these studies are completed, the NPS would like the Bureau to refrain from issuing mineral leases or permits to explore the area for minerals. (McCoy, Kassman)

Division Provides Technical Assistance to DSC on St. Croix Draft GMP - Responding to a request for assistance from the Denver Service Center (DSC), Division staff provided technical information and advice on minerals development and geologic issues at St. Croix National Scenic River for general management planning purposes. In terms of minerals development issues, the Division advised DSC that private sand and gravel extraction operations along the river pose a threat to water quality, bank stability, and fish and wildlife resources, and these threats will likely increase in the future as the demand for mineral material increases. The Division also provided DSC with state permitting agency contacts to further discuss resource impact issues and to explore opportunities for park resource protection. The Division further suggested that park staff monitor river erosion and sedimentation rates to identify areas of concern and to formulate appropriate mitigation and control measures. With respect to geologic information, the Division supplied constructive language suggestions to improve descriptions of park geologic history and geologic processes. (Geniac, Smith, Steensen)

NATIONAL CAPITAL FIELD AREA

Cabin Branch Pyrite Mine Reclaimed at Prince William Forest - In a cooperative effort between Prince William Forest Park and the Virginia Division of Mining, Minerals and Energy, the Cabin Branch Pyrite Mine was reclaimed. The mine site included approximately five unvegetated acres of acidified tailings and soil material, eight shafts, historic mine foundations, and a highwall. Several seeps contributed acidified and metal laden water into Quantico Run, the creek that flowed through the site. Reclamation efforts included reducing the slope of the highwall, constructing a series of stormwater channels, capping the contaminated material, amending the soils, revegetating, and capping eight shafts with concrete covers. The project was funded by a combination of non-point source monies received by the state from EPA (section 319 of the Clean Water Act), a Water Resources Division grant, and Virginia's monies for orphaned mine clean-up. The entire project was funded at \$160,000, although follow-up monitoring efforts will add to this cost. Already, evidence of increased creek stability and elevated pH can be observed. Congratulations to Prince William on a job well done! (Smith)

Belated Job Well Done to Chesapeake & Ohio Canal on Mine Closure - Several years ago at the park's request, Division staff visited all

the hazardous mine openings in Chesapeake and Ohio Canal National Historical Park and prepared mine closure recommendations for park management. Park staff recently completed closure of the last hazardous mine opening located at the abandoned Ford Gold Mine. While park staff are still involved in wildlife habitat monitoring, historic structure preservation, and renovation at several abandoned mines in the park, the work at the Ford Gold Mine completes all the hazardous mine opening closure work. (Cloues)

NORTHEAST FIELD AREA

Oil and Gas Operator at New River Seldom Seen, But Eight New Wells at Gauley Are - Park staff at New River Gorge National River and Gauley River National Recreation Area reported to the Division that the operator of an abandoned oil and gas well at New River Gorge who came forward to plug the well has not been heard from since May. The Division had provided park staff with regulatory and plugging engineering information to properly advise the operator. The park has received no further word from the operator following transmittal of the information. Additionally, park staff discovered several enormous new hillside cuts at Gauley River while conducting a river trip with Pete Hart, the new Superintendent. Park staff investigated the cuts and found eight new gas wells inside the park's authorized boundary. By not owning either the surface or mineral rights at these locations the NPS has little to no regulatory authority over such operations. An informal agreement with the West Virginia Oil and Gas Commission to notify the NPS of proposed new oil and gas wells in the area is obviously not working. Park staff will soon meet with the Commission to discuss resuming advance notification. Park staff will also provide the Division a map of the new wells' locations for our files and to update our database. (Heise)

PACIFIC WEST FIELD AREA

Castle Mountain Mine Proposes Expansion Adjacent to Mojave - Division staff provided technical assistance to Mojave National Preserve by preparing comments on a proposed plan amendment application and scope of work for expansion of Viceroy Corporation's Castle Mountain Mine. The Castle Mountain Mine is an existing open pit and cyanide heap leach gold mine adjacent to the park. Viceroy Corporation recently petitioned the County of San Bernardino and the Bureau of Land Management (BLM) to allow expansion of the mine size by 61% while requesting a reduction in monitoring and mitigation requirements set forth in the original mine permit. Division comments submitted to the park Superintendent underscored the need to remind the permitting agencies that Mojave National Preserve and Congressionally-designated "wilderness" areas are now located adjacent to the mine. Division comments further stressed the increasing importance of protecting ground water quality and quantity in the park area and the need to increase vegetation salvage for reclamation purposes. Park staff intend to work with San Bernardino County and the BLM throughout the environmental analysis and permitting process. The

Division will continue to support the park by providing technical advice during the process. (Moss)

Mining Claim Validity Program Underway in Death Valley Additions - Division staff conducted a two-week mineral examination on a block of six lode claims in the Saddle Peak Hills area of Death Valley National Park. The California Desert Protection Act added this area to the park. Miners operated the Rainbow and Caliente Talc Mines on these claims during the 1950s and 1960s. The validity process was triggered when the claimants submitted a plan of operations to the park to resume mining at an initial rate of 500-1,000 tons per day based on an asserted established and ready market. Division staff are preparing a mineral report on the claims that will analyze 31 samples collected by the mineral examiners during the field examination, including a summary of the examiners' findings as to whether the claimant has made a "discovery" on each of the six mining claims. If the claims prove to be "valid," park management will have to assess other environmental issues during the mine plan of operations evaluation process, such as access and mining in designated wilderness, protecting a pallid bat maternity roost, storage of explosives at the site, and water use. (Burghardt, Covington)

Olympic Contracts for Independent Opinion of Development and Exploration Plans at Shi Shi Beach - Since January 1995, the purported owners of a mineral reservation on and upland from Shi Shi Beach in Olympic National Park have stated their intent to sell that reservation to the United States. The purported owners believe they have an extremely valuable deposit of placer gold accumulated in the beach sands at this wilderness beach. The only data that indicates the likelihood of gold in the beach sands is in the form of historic mining reports and regional geologic studies. No recent exploration or sampling has been conducted on any part of this reservation for any mineral. Based on the available data, the NPS estimates that this speculative resource would be worth only a nominal value, whereas the purported owners believe its fair market value to be in the hundreds of millions of dollars. Both parties stand firmly by their estimates and, not surprisingly, discussions between the parties regarding the mineral reservation's value have been unproductive. In light of this gridlock, the NPS contracted a private consultant to review the same data and render an independent opinion as to the likelihood that valuable minerals exist and whether or not any further sampling on the beach is warranted. The consultant's opinion supports the NPS findings regarding the doubtful existence of valuable minerals in the beach sands. The opinion also recommends that if the purported owners wish to conduct exploration, they should follow industry standards by adopting a pragmatic exploration approach beginning with cost-effective, non-intrusive reconnaissance methods. The park forwarded the consultant's report to the purported owners and are awaiting their response. (Kassman, Shaver, Woods, Cloues, Covington, Moss)

SOUTHEAST FIELD AREA

Division Assists Department of Justice and Mammoth Cave on Criminal Case: Puts Dollar Figure on Vandalism of Cave Features - In response to a request from Mammoth Cave National Park and the Department of Justice, Phil Cloues, the Division's mineral economist, put his skills to work to determine the value of damage to cave resources through recent acts of vandalism. A summary of his findings reports the cave/park resources received substantial damages appraised at over \$200,000. The damages appraisal is a key element of a criminal investigation conducted by the Department of Justice. (Cloues)

Proposed Appolo Coal Mine Near Cumberland Gap Will Adversely Impact Park Resources - The Division commented on a preliminary draft of an environmental impact statement (EIS) prepared by the Office of Surface Mining Reclamation and Enforcement (OSM) on a petition to designate lands near Cumberland Gap National Historical Park "unsuitable" for coal mining. A proposal to mine coal adjacent to the park in an area considered to be an important watershed was the genesis for the petition by the City of Middlesborough, Kentucky and the National Parks and Conservation Association. While the mine proposed by Appolo Fuels, Incorporated, is located in Tennessee, many of the adverse impacts of the mine will occur in Kentucky. Under §522(e)(3) of the Surface Mining Control and Reclamation Act, if a proposed mine will adversely impact a public park, the owners must establish that they have "valid existing rights" to mine the coal. Park staff are spearheading the Service's involvement in the EIS and permitting process with technical and regulatory assistance from the Division. The schedule for releasing the draft EIS to the public is currently up in the air because of significant budget cuts and staffing reductions in OSM. (McCoy, Moss)