The LOGBOOK of CSP²

The CENTER for SCIENCE in PUBLIC PARTICIPATION

"Technical Support for Grassroots Public Interest Groups"

CSP²/CSP²/CSP²/CSP²/CSP²/CSP²/CSP²/CSP²/ **WINTER 2000** /CSP²/CSP²/CSP²/CSP²/CSP²/CSP²/CSP²/CSP²

ALASKA

In May, Amy Crook joined the Center as its Alaska representative. Amy has been working in the field of water quality protection for over twenty years. She has a B.S. in Natural Resource Management from the University of Michigan and a M.S. in Fishery Resource Management from Oregon State University.

Amy Crook

Amy left the Alaska Department of Environmental Conservation (DEC), Water Quality Program after 13 years as the program coordinator of the Industrial Operations Section. She has extensive experience in permitting and oversight of Alaskan industrial facilities, reviewing environmental impact statements, environmental toxicology and working with communities, public interest groups and industry on controversial and complex development projects. Previous to working with DEC, Amy was a scientist for the National Marine Fisheries Service on a project studying ocean survival of salmon, and as a consultant to the Department of Fisheries and Oceans in St. John, Newfoundland, Canada on a stream restoration project.

Amy's focus with CSP² will be broader than mining. Because her expertise is more general and not focused so heavily on mining as the other staff members, and because the need for technical support on environmental issues is so broad in Alaska, Amy will be providing general technical support on water and air quality issues to Alaska environmental groups.

Since her start with CSP² Amy has been working on a variety of projects around Alaska. She has been assisting the Northern Alaska Environmental Center (NAEC) and Southeast Alaska Conservation Council (SEACC) with their reviews of several mining projects around Alaska; Greens Creek, Red Dog, Kensington, Fort Knox, Tulsequah Chief and other mines. Amy has been assisting the new mining and water quality staff at the Northern Alaska Environmental Center in Fairbanks and the Southeast Alaska Conservation Council in Juneau to get up to speed on mining projects around the state, State and Federal environmental laws, agency introductions and general support.

The mill building at the Greens Creek Mine, on Admiralty Island near Juneau. This is a lead/zinc/silver/gold underground mine. Amy has been assisting the Southeast Alaska Conservation Council in investigating recently discovered problems with acid generation in mine tailings and in waste rock from this site.

Amy is a member of the Alaska Conservation Alliance's Air and Water Quality working group and provides technical support for the member groups. She is also serving on the Industrial Permitting, and Cruise Ship Pollution Work Group of the Alaska Department of Environmental Conservation Water Quality Program. Amy has also been acting as a liaison between public interest groups and several state and federal agencies to improve communication with, and access to, decision makers.

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MONTANA

by Jim Kuipers

NPRC and Stillwater Mining Company

For the past year CSP² has been assisting Northern Plains Resources Council, Cottonwood Resource Council and Stillwater Protective Association in their efforts to negotiate an agreement with Stillwater Mining Company. The company is operating a platinum/palladium mine in the Stillwater River Valley, and is developing another new mine in the Boulder River Valley. Both rivers are in the northern part of the greater Yellowstone ecosystem. The two underground mines will be the world's only other known significant source of platinum group metals outside of South Africa.

The public interest groups and the mining company announced that they had reached a tentative agreement in September of last year. The precedent setting "good neighbor" agreement will encompass water quality monitoring, tailings and waste rock disposal, and reviews of reclamation and bond coverage. In addition, protective easements to preserve open space and agricultural land would be included, in addition to addressing traffic issues and employee busing. The agreement will involve a number of engineering studies to address environmental impacts and future mine growth issues with substantive involvement by the public interest groups.

It is anticipated that a legally binding and finalized agreement will be completed and implemented early in 2000.

Zortman-Landusky Reclamation

On behalf of the Fort Belknap Environment Department, CSP² has been involved for the past year in an ongoing consultation process with the Environmental Protection Agency, Bureau of Land Management, and Montana Department of Environmental Quality to address final reclamation and closure of the Zortman-Landusky mines. As reported previously, the mines were owned by now bankrupt Pegasus Gold Co., and the State of Montana and Bureau of Land Management are now responsible for reclamation.

At the invitation of the federal and state agencies the Fort Belknap Environment Department, with technical assistance from the Center, has been involved in engineering and inter-agency working group meetings on the reclamation of the mines. The meetings involve the use of a Multiple Accounts Analysis (MAA) process that is intended to encourage stakeholder participation and consideration of stakeholder alternatives and evaluation. Under the MAA process, the Full Reclamation and Closure Plan developed by CSP² on behalf of Fort Belknap is being considered, along with other options developed by the agencies.

The main issue at stake is whether the existing reclamation bond, totaling approximately $60 million, will be adequate to reclaim the property. The state asked the bankruptcy court for an additional $8 million to complete it's proposed reclamation, and the Fort Belknap Tribes would like additional funding in order to adequately address environmental standards and aesthetic and cultural issues important to its residents.

Troy Mine

The Troy Mine is an underground copper-silver mine located near Noxon, MT in the Cabinet Mountains Range. The mine, owned until recently by ASARCO, is now temporarily closed, and along with the proposed nearby controversial Rock Creek Project was recently purchased by Sterling Mining Co. Sterling has proposed re-opening the Troy Mine and going ahead with development of the Rock Creek Mine, which would be located underneath the Cabinet Mountains Wilderness area.

CSP² recently completed an evaluation on behalf of the Cabinet Resource Group of the Montana Department of Environmental Quality's five-year review of the Troy Mine bond. The DEQ recommended that the bond for reclamation of the mine tailings pond be increased from the existing amount of $2.8 million to a new amount of $10.0 million. The increase was due to new procedures undertaken by DEQ in response to the bankruptcy of Pegasus Gold Co., that included calculation of the bond amount as if the agency were performing the reclamation rather than the company.

Based on the Hardrock Reclamation Bonding Practice study recently completed by CSP², the new bond amount by DEQ was found to be consistent with recommended regulatory practices. However, the Center has recommended some additional bonding to address ongoing seepage and stability issues not addressed in the revised bond.

From the Executive Director

CSP² is pleased to announce the release of a major study titled **Hardrock Reclamation Bonding Practices in the Western United States**, conducted for the National Wildlife Federation. The study is the culmination of an effort that was begun in late 1998 to comprehensively and critically address the issue of reclamation bonding practice.

Dave Chambers is the Executive Director of CSP²

The four part study addresses bonding features, mechanisms, costs, and practice. It contains each individual state's major mines, disturbed acres and bond amounts; each state's significant reclamation and closure bonding statutes; and 18 individual case studies of reclamation and closure plans and bond amounts for various selected mine sites. In addition, the study contains a recommended regulatory model for reclamation and closure bonding statutes, and a critique of each individual state's existing statutes.

The study includes all the western U.S. states (Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming, as well as information on the Bureau of Land Management and Forest Service.

The study emphasizes comparison of different state statutes, practices, and costing methods for reclamation bond amounts. It is intended to be both a technical manual useful to the scientific and regulatory community, as well as a tool useful to public interest groups concerned with mining issues.

One of the key issues the study focuses on is that of mining related water quality impacts. The study shows that typical reclamation and closure costs can increase from an average of approximately $5,000 per acre to $20,000 - $50,000 per acre, or more, when acid mine drainage or similar problems affect water quality.

Given that these water quality impacts are frequently not discovered until after mine permitting and bond levels are set, the study recommends that state and federal agencies more diligently assess the potential for acid mine drainage, and address the necessary mitigation in the reclamation plan and bond amount.

Copies of the study can be obtained by contacting the Center, and will be posted in *.pdf file format on our website, which will be established in mid-2000.

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NEW MEXICO

by Jim Kuipers

The Questa Molybdenum and Chino-Tyrone mines are two of the major mines in the country for which a reclamation and closure plan and bond amount have yet to be developed. The State of New Mexico's Environment Department and Minerals and Mines Division are in the process of using the 1993 New Mexico Mine Reclamation Act and other state statutes to establish reclamation plans and bonds for those and other mines in the State.

Questa is a molybdenum mine owned by Molycorp located in the Northern part of the state. The open-pit and underground Questa mine has been the subject of on-going controversy with respect to acid mine drainage and impacts to the Red River. There are large angle-of-repose waste rock dumps that sit above the Red River that appear to be leaching contaminants into the river. The Red River has also been impacted in the past by breaks and spills in the tailings transport lines from the mine to the tailings pond.

Reclamation planning for the waste rock dumps, the talings ponds, and the open pit is now underway. One of the key issues yet to be established is whether there is a hydrologic connection between the contamination in these facilities, which is documented, and the Red River.

The Chino-Tyrone mines are large, open pit copper mines operated by the Phelps Dodge Mining Company in Grant County, near Silver City, New Mexico. In addition to the mines there is a large copper smelter at Hurley, New Mexico, also in Grant County. Sulfate plumes, and possible metal contamination of groundwater are issues at this complex.

CSP², together with the Mineral Policy Center, met with various public interest group in New Mexico this past summer to discuss mining issues in the state. The Center also met with the State agencies responsible for mine reclamation and bonding, and discussed their plans for establishing reclamation and closure bonds for the various mines.

In September, CSP² conducted a three-day workshop on reclamation and closure and bonding practices, presenting the results of the previously mentioned Hardrock Mining Reclamation and Bonding Practices study, as well as considering the issue in more detail for both the Questa and Chino-Tyrone mines.

The Center recently agreed to provide technical assistance to Amigos Bravos, a local environmental group, in their on-going efforts to address the environmental impacts of the Questa Mine.

CSP² is also assisting Gila River Information Project in their efforts on the Chino-Tyrone mines.

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- Become a Donor to the **CENTER for SCIENCE in PUBLIC PARTICIPATION**.
- You can help us in our work to provide local public interest organizations with technical analysis and policy support. CSP² is the only organization focusing on providing technical support to local groups on local issues. Our focus is on natural resource issues, water quality and mining in particular.
- We realize that there are a lot of good causes, and that everyone is asking for your support.
- A donation of $25, or more, would help our efforts in furthering rational debate on natural resource issues.

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