

Making a Mountain Out of a Mine in Montana

By Wynn Miller

Summary: Opponents of the 1872 Mining Act think a proposed gold mine on the border of Yellowstone National Park would ruin the environment and the local economy. Mine advocates say mining has entered a high-tech era of environmental responsibility. A rich vein of debate is developing in the Western mountains and the halls of Congress: To mine or not?

When David Rovig, later the president of Crown Butte Mines, went into Montana's Gallatin National Forest in the 1980s looking for minerals, he quite literally hit pay dirt: deposits of gold, silver and copper worth \$800 million. But what he also found in the remote New World Mining District, which abuts the northeast corner of Yellowstone National Park, was controversy. When Crown Butte announced plans to build an industrial mine on the site, environmentalists, fearing the mine would devastate the pristine mountain area, went into a frenzy.

"It's hard to understand why we should sacrifice the most beautiful area in the lower 48 for one mine," fumes Bob Ekey, a spokesman for the Greater Yellowstone Coalition, or GYC, a 4,500-member group opposed to the plan.

The New World site is in a 24-square-mile enclave of private property surrounded by millions of acres of national forest, preserved wilderness areas and Yellowstone National Park, the crown jewel of the national park system. The site is in what environmentalists call the Greater Yellowstone Ecosystem, a complex of mostly federal lands the size of West Virginia that is home to more than 200 species of birds and other animal life, including bald eagles and grizzly bears. Many wildland specialists consider Greater Yellowstone the largest and most diverse wildlife habitat in the temperate zone.

Crown Butte Mines Inc., owned by the Canadian conglomerate Noranda,



CROWN BUTTE MINES INC.

is quick to defend its plans. The company, based in Billings, Mont., has explored the New World district since 1987, buying more than \$3.2 million worth of mining claims, and company spokesman Mark Whitehead calls the New World site "a tremendous find."

Crown Butte has tested and explored five claims at the New World site, putting reserves at more than 12 million tons. According to Interior Department records, since the turn of the century the New World district has produced more than 65,000 ounces of gold, a half-million ounces of silver and about 2,000 tons of copper — worth \$26.7 million in today's dollar value. In the next 15 to 20 years, Crown Butte Mines plans to extract about 40 times as much ore as the New World district has ever produced. But in doing so, says Louisa Willcox, the GYC's program director, the mine would "lop off the wildest corner of the ecosystem."

But Crown Butte cannot even start to build its planned ore-processing facilities, let alone mine, says Whitehead, until a number of environmental impact studies are done, permits are granted and public hearings are held. Environmentalists are concerned that the proposed mine would produce, among other things, acid-laden tailings that would flow into Yellowstone. Those fears are unfounded, says Crown Butte's Rovig, who claims that the mine would be "one of the smallest in terms of tonnage and the largest in gold production — the kind of mine people should look for, in terms of what used to be called 'conservation.'" Rovig argues

that the impact would be slight — "reclamation standards are stringent," he says — and touts minerals as key elements for national security, technology, space exploration and the global monetary system.

Those arguments don't sway people such as the GYC's Ekey, however, who doubts gold's strategic value. "I'll bet there's more gold around the necks of pimps in Miami," he says, "than in all the spaceships to the moon."

But the doubts and controversy surrounding the proposal to begin mining have focused attention on a broader issue — reform of the 1872 Mining Act. "It's a classic example of the need for reform," says Peter Aengst, a program assistant at the GYC.

Like the Homestead Act of 1862, the 1872 Mining Act was intended to help populate and develop Western territories, giving anyone who discovered a mineral carte blanche to mine it.

Under the Mining Act, claims can be staked and passed into private ownership for a fee of \$5 an acre and proof that the owner has improved the property. Unlike other public-land giveaways, the Mining Act doesn't impose royalties on minerals.

The federal government has given

Mining in three stages: Computer images show how the Crown Butte site, left, would look during mining, center. After mining, the land would be restored to its original state.

up 3.2 million acres — an area the size of Connecticut — since the act was passed, and thousands of individuals and corporations have made fortunes from public-lands minerals.

The 1872 act has fired controversy from the Sierras to the Potomac. Thanks in large part to the act, America is in the midst of its largest gold rush ever. Estimates of the value

of minerals taken under the act range from \$1 billion to \$4 billion a year. Anticipating revenues of \$400 million a year, the Clinton administration has called for imposing a 12.5 percent royalty on hard-rock minerals for the first time ever, a move that Gary Langley, executive director of the Montana Mining Association, says would "close every mine in

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Democratic Sen. Dale Bumpers of Arkansas, one of those in Congress most opposed to the Mining Act, calls it "the biggest scam in America."

But Crown Butte's Rovig feels that imposing royalties would be devastating to the United States, driving

the mine business overseas, and he has campaigned against it. Crown Butte's Whitehead adds that less-developed countries have used the 1872 act as a "template" to encourage mining. The proposed reforms wouldn't affect Crown Butte, Rovig says, because most of its operation, on private land, wouldn't be subject to the federal royalties.

reclamation, which would put "hundreds of Montanans to work" cleaning up derelict mine sites.

State laws fill the gap left by the federal law, according to a Forest Service spokesperson in Washington. Mine reclamation must be planned before Montana will issue a mining permit. "When you extract from the land, there's always damage" to the

it hopes to mine more than 9 million tons of ore in a process that some mining geologists consider even dirtier than leaching.

Environmentalists aren't swayed. The mine is expected to produce more than 5 million tons of waste rock, enough to fill an area of more than 70 acres, at the site in Fisher Creek inside the New World Mining

District. The pretty alpine meadow is a favorite travel corridor and feeding ground for grizzly bears, and environmentalists claim it would be threatened. The New World Mining District "contains grizzly bear population centers and components needed for survival and recovery of the species," according to Gallatin National Forest officials. In fact, there are more bears than people in the region.

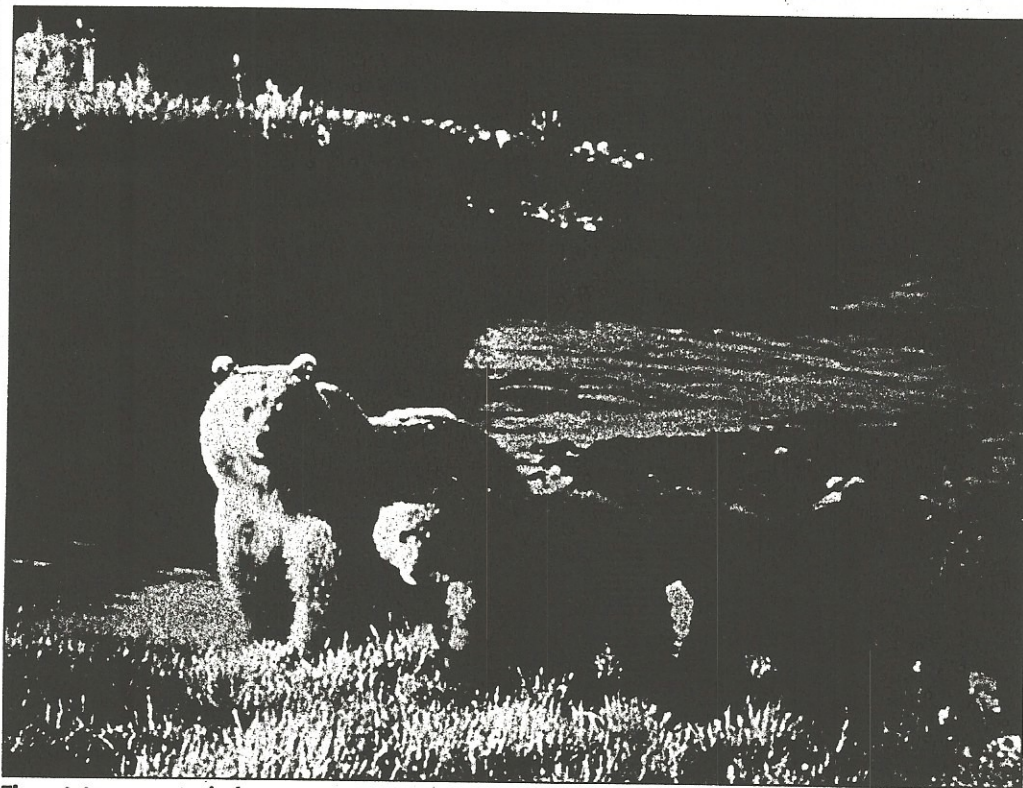
The bears roam in a 5.5 million-acre homeland that includes Yellowstone National Park. The mine site area is classified "Situation One," the government's highest rating for grizzly habitat. The Gallatin forest's spending for bear, eagle and falcon recovery alone makes up

half its budget of \$669,000 a year for threatened and endangered species, making habitat one of the critical factors under review.

But it is by no means the only factor. Jurisdictional lines in the high mountains create bewildering complexity. A dozen local, state and federal agencies, from the Park County Commission in Wyoming to Yellowstone National Park to the Army Corps of Engineers, exercise authority. The public, too, has a voice in reviews for mining that involve at least 25 different permits.

The leading process is called "completeness review" of the Proposed Plan and Permit Application (a 2,000-page document), conducted by the Department of State Lands and the Gallatin National Forest.

The review, which is legally binding on mining companies, addresses the technical points of mining and reclamation as well as animal habitat, transportation, housing, socioeco-



The mining area includes a favorite travel corridor and feeding ground for grizzly bears.

Whitehead contends that the 1872 law is not a giveaway. The rigorous patent and permit processes now required cost mine operators more than \$25,000 for an average 20-acre claim. But he says the industry does support reforms that would close certain loopholes in the 1872 law.

Democratic Sen. Max Baucus of Montana thinks the fundamental principle of the Mining Act — to keep public lands open to mineral exploration — applies today. "The challenge is to reform the law so that mineral development is encouraged in an environmentally sound fashion," Baucus says. "I would not characterize that act as a scam, but rather as a law that needs to be made more applicable to the late 20th century."

Democratic Rep. Pat Williams, Montana's lone member of the House, agrees it is time to revisit the 1872 act. "The ink is dry on Ulysses S. Grant's signature," he says, adding that the right reforms would include

land, people and wildlife, according to Mike DaSilva, an environmental specialist at the Montana Department of State Lands. "Boom and bust cycles can wreck an economy. Extractive industry is Montana's history, and the laws are designed to make life a little more palatable to those left behind."

As far as Crown Butte is concerned, its planned mine would improve life in the region. The company plans to invest more than \$100 million in plant and development, and its estimated 20-year payroll is about \$140 million. Whitehead says Crown Butte will put \$1 million into environmental studies and approvals. Moreover, it has abandoned its early plans for open pit mining and the caustic cyanide-leaching method, plans that raised sharp objections from residents concerned about damage to mountain streams. Instead, Crown Butte would concentrate on the richer underground deposits, where

nomics and water quality.

"It's difficult to get the [government] agencies to push for certain requirements," GYC program assistant Aengst says. "They lack the manpower and funds for such a big, tedious job." The review was complete in May, and work on an environmental impact statement, a yearlong process, will begin.

"This is a very controversial, complex project in a fragile area," says Sherm Sollid, a geologist who has been reviewing the proposal for the Gallatin National Forest for the past two years. "The growing season is short, with high snowfall on highly acid soils; the area is prone to avalanches and high runoff, with the water running into [the Absaroka-Beartooth] Wilderness and the park."

Yellowstone Superintendent Robert Barbee balks at such words as "fragile" when applied to land, and he says that the park is an active participant in the debate. The park and adjacent wildlands are becoming "more and more important to surrounding communities," he says, adding that maintenance and conservation of "cross-boundary resources such as fisheries and migrating wildlife are good investments."

A pivotal scientific concern is acid mine drainage. It can cause sulfuric acid to form and dissolve heavy metals such as lead, copper and arsenic out of the host rock. While some geologists consider mining merely an extension of natural erosion, acid mine drainage worries Stanford University chemist Daniel Pierce. "Is there any way that placing what has been called the wildest river in the contiguous United States [the Clarks Fork of the Yellowstone] at risk can be justified?" he asks. "The answer is clearly no."

Indeed, "mineral waters" have been an enduring legacy in Cooke City, Mont. The upper reaches of Fisher Creek, where the New World project is proposed, has a pH of 2—100,000 times more acid than normal, neutral water—and no fish. Soda Butte Creek, once a lovely trout stream meandering along the sylvan valley from Cooke City into Yellowstone, has no trout.

Geologist Grant Meyer, a researcher working in Yellowstone, notes that avalanches, creek flood-

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ing and intense forest fires would threaten the viability of engineered dams and water-treatment systems planned to protect the mine area from hazardous side effects. The question, he says, is not the usefulness of such projects, but whether they "can be maintained in a functional state for the literally hundreds to thousands of years over which the tailings will remain hazardous."

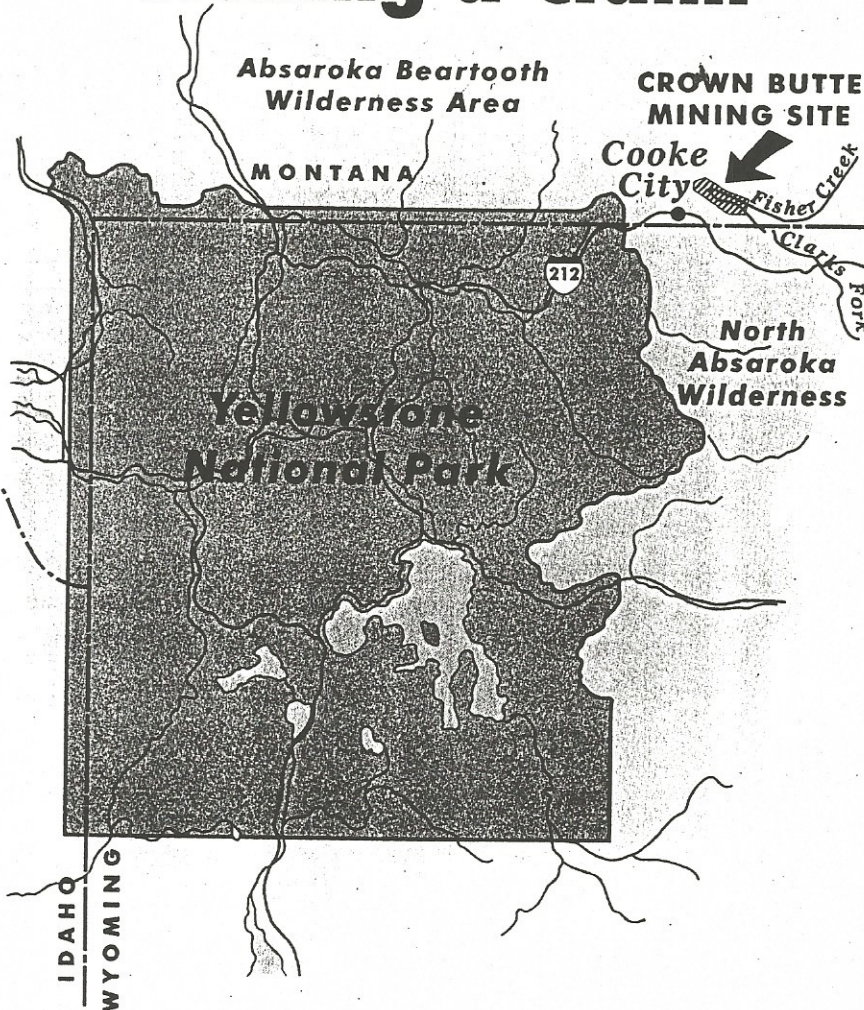
Crown Butte's Whitehead dismisses such concerns as extreme, saying that protective systems need to be engineered only for a "reasonable" lifetime and that the company's facilities and long-term monitoring program would be state-of-the-art.

But the effects of the mine on the human population are also hotly contested. Downtown Cooke City, the nearest town to the Crown Butte site, is like any number of gateway communities near national parks or scenic spots. A dozen motels and restaurants, interspersed with trinket shops, line the main street, and cars crowd the parking spaces. In summer, detonations issue from a small mine near town. Fishing and hunting outfitters do a brisk business, operating on public lands and rivers.

During its nine-month winter, however, Cooke City resembles Cicely, Alaska, the fictional town in the CBS television series *Northern Exposure*. Snowmobiles replace autos on Main Street. Reduced to its population of 75 year-round residents, Cooke City's tourism industry is limited to snowmobile rentals, guided skiing, avalanche rescue and drinking. The GYC's Willcox bemoans the "industrialization of a

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Staking a Claim



quiet, funky place," and bike shop owner Bill Blackford says that the mine would put "a huge dent in snowmobiling, taking out one-third of the area the big machines can go." As a sign of the times, the Elkhorn Saloon has been renamed the Miner's Casino, and the 4-Seasons motel now boasts the Prospector's Lounge.

Cooke City is so isolated that only one end of the road serving it is open during winter, running west through Yellowstone, where commercial traffic is prohibited. All materials for Crown Butte's new mill, processing 1,500 tons of rock a day, 365 days a year, would have to be conveyed east over the Chief Joseph Scenic Highway.

Normally closed from November to May, the Chief Joseph winds 50 miles through Sunlight Basin, Wyo., over two mountain passes and past a mixture of national forest and private ranchland. "People who own summer homes in the Sunlight area are concerned that efforts will be made to construct a work camp or a mobile

home park" for miners to live in, says LaMar Empey of Cody, who is chairman of the Yellowstone Clarks Fork Coalition and vice president of the Greater Yellowstone Coalition. Residents would like to see density requirements strengthened "on their own merits" he said, but a proposal to do so was tabled recently by the Park County (Wyo.) Commission.

"Not only do these highways (Wyoming 296, and US 212) travel through country inhabited by mountain goats, bighorn sheep, elk, moose, grizzly and deer, and past scores of alpine lakes and streams, they are also a source of inspiration to thousands of tourists, hunters, fishermen, hikers, skiers and snowmobilers," Empey has written. "In addition to diminishing their recreational and esthetic value ... these simple two-lane roads would be used to transport workers, dangerous chemicals, ore concentrate and supplies," leading to the possibility of accidents. A new transmission line is planned along the route to supply power for the mine.

Would the economic benefits of

the mine outweigh the environmental costs? The prevailing view in some areas is that, as one observer puts it, "Montana got the mine and Wyoming got the shaft." Residents of the region doubt they would benefit much. One observer in Wyoming predicts that "there's not much in it for Cody" — the largest nearby city and a terminal for ore shipments — because Crown Butte has been "nebulous" about the scale of the mine's impact there.

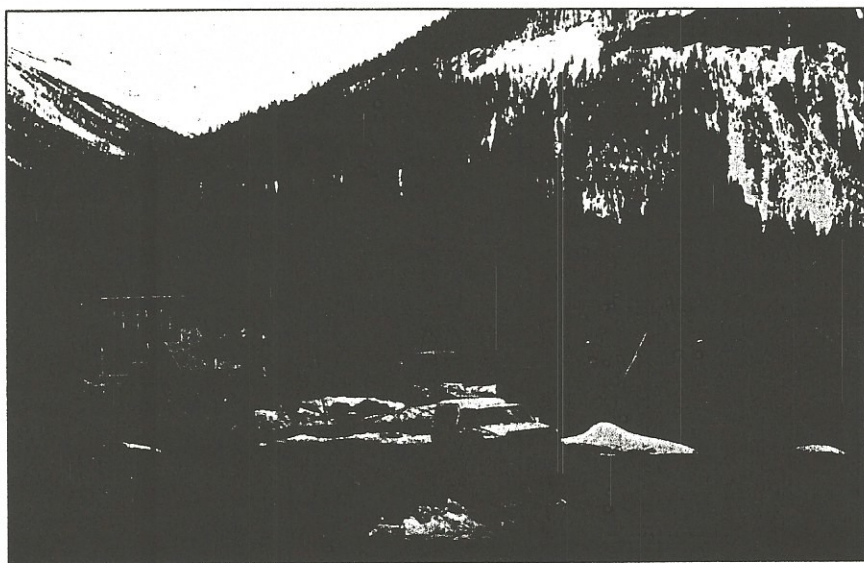
But Whitehead insists that Crown Butte is looking closely at the issue. "There is a skilled work force in the area," he says, adding that he expects the mine would draw 60 to 80 percent of its people from communities surrounding the national park. Dan McLaughlin, Noranda's project manager at Crown Butte's site in Cooke City, has said it would bring long-term benefits, including jobs, and build tax bases.

"Mining jobs are the highest-paying in the nation," asserts Crown Butte's Rovig. Whitehead adds that the average annual salary is \$38,000, which he says is higher than in the tourist industry.

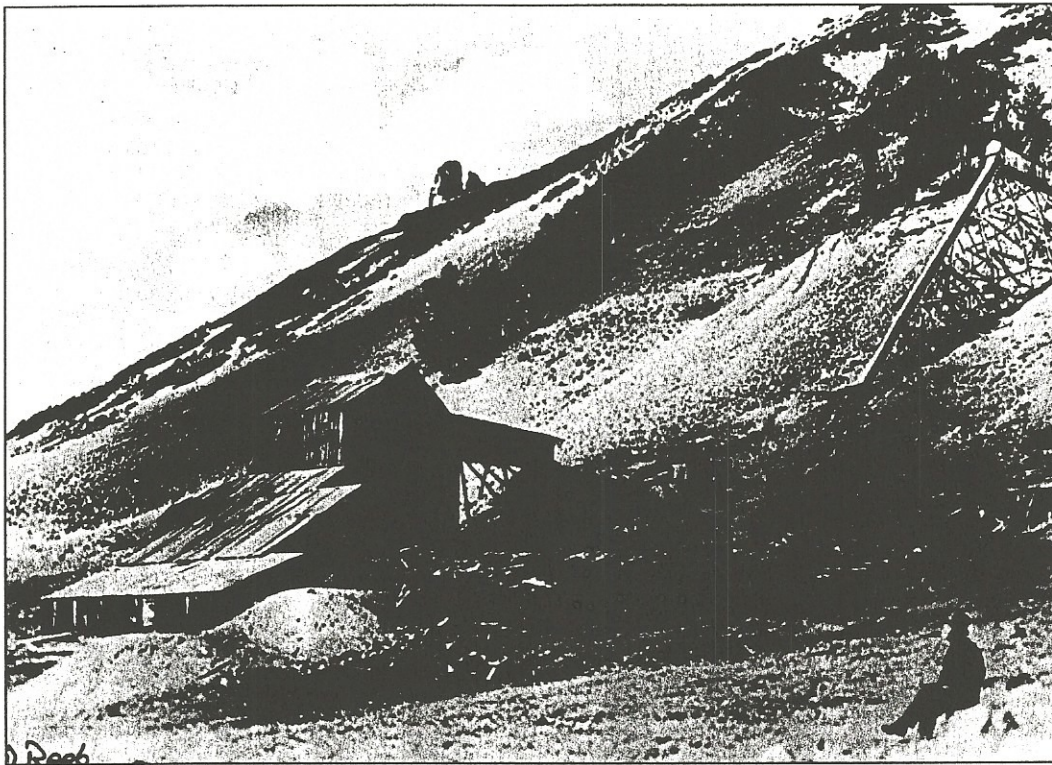
On the other hand, some observers say, a robust natural environment encourages economic growth, attracting new residents and sustaining service businesses, from gas stations to horse packing outfits. According to a Wilderness Society report, from 1969 to 1989 the "work force of Greater Yellowstone has grown by 66,000 people (68 percent). 96 percent of all new jobs ... occurred in sectors other than mining, manufacturing and agriculture."

Montana led the nation in income growth last year, with tourism leading the way, largely in ski resort counties. There are four such counties in the Greater Yellowstone area. Growth in the snow areas "brings with it economic opportunities once occasioned only by gold strikes," according to a University of Oklahoma study done in the late 1980s of 41 ski counties nationwide. But recreation, too, affects the environment, bringing increased traffic, water use and wastewater-treatment woes, along with higher taxes and prices. It also results in stark contrasts in earning power between newcomers and other residents.

In a 1991 paper, University of Montana economist Thomas Power observed a sharp decline in the importance of minerals to the economy of the Greater Yellowstone area. He wrote, "Population flows have transformed our economic landscape



Some opponents fear mining would destabilize tiny Cooke City's economy.



D. Reeb
The 1872 act let miners stake claims for \$5 an acre and proof that they improved the land.

COURTESY OF MARGARET REEB

... those choosing to live in the Greater Yellowstone area have 'purchased' access to it by sacrificing higher-paying jobs and commercial opportunities" elsewhere. Public lands were historically seen as storehouses of commodity values, he argued, but now "when one analyzes the main connection between those lands and the local economies, it is not the extractive activities that dominate. Rather, it is recreational activity."

Echoing these comments, Dwight Minton, the chief executive officer of Church & Dwight Co. Inc., which makes Arm & Hammer products, wants to treat the environment as an income-generating capital asset. "Here is an area where we should be sponsoring growth industries," he says. A GYC member with a Montana ranch, Minton says the region should opt for sustained growth, eschewing mining with current technology. "The gold will still be there tomorrow — and 200 years from now."

Wade King of the Beartooth Alliance, a grass roots group based in Cooke City, worries that the influx of even a fraction of the planned 320 construction workers and 150 miners and their families would destabilize the environment and economy. The Cooke City school, he said, has five students and one teacher. Mining could boom the student population to 30 and bust public works such as sewers.

Montana law requires big mines to work with communities to assess such needs, often prepaying taxes or posting bonds for infrastructure improvement. For example, Crown Butte may buy the Cooke City volunteer fire company a new truck. "Anytime you replace 1942 equipment, it's bound to be better," firefighter Rick Sommers says.

But King says Noranda has been disingenuous in its gifts and promises. "They've backpedaled on everything — schools, sewers — and only done superficial cleanup" of old mine sites, he says.

Still, Rep. Williams feels it's time to "go very slowly with increased development around Yellowstone."

With so much at stake, the debate has sometimes gotten stormy. In early February, the Montana Senate banned environmental lobbyist Jim Jensen from entering the Capitol for a week, saying he threatened state legislators over a mining bill.

Jensen's unprecedented ouster apparently came about in reaction to a bill proposed by Sen. Henry McClernan and Rep. Joe Quilici, Democrats from Butte, that would impose stiff sanctions against citizen lawsuits over mining.

"Mining is one of the few bright spots we've got in Montana anymore," Quilici says, adding that the measure is designed to limit nuisance suits and

protect jobs. The bill would require those who object to mine development to post a bond when filing suit and pay court costs if they lose. Jensen's Montana Environmental Information Center is suing the Senate over his banishment.

Crown Butte's Whitehead says the mining companies are whipping boys, singled out to jump through environmental hoops. "Does a shopping center or highway project have to do a full-blown environmental impact study?" he asks. "We take our responsibilities as corporate citizens seriously. We've

maintained a dialogue even with those groups that are inextricably and unalterably opposed."

DaSilva of the Montana State Lands Department agrees. "They've done a good job," he says, and Gallatin forest geologist Sollid concurs. "Crown Butte bares its soul [in public meetings]. Old-line companies aren't used to that."

As the studies come in, the debate over both the New World mine and the 1872 Mining Act will continue to rage. Greater Yellowstone, home to the first national park and national forest, is a paradigm of preservation.

But Crown Butte represents new, high-tech mining by a new generation of Montana miners schooled in both geology and environmental science. Stricter laws hold miners more accountable than ever for reclamation, water quality and the protection of wildlife habitat. Concurrent with Crown Butte's exploration, real estate values in Cooke City have increased, and sales are brisk.

The Greater Yellowstone Coalition is resolved to stand against the mine and is preparing to fight it in court if it becomes necessary. But the gold bug still bites. A senior Noranda geologist says, "You know, we scratch around hills like these all of our lives, looking, hoping; then all of a sudden, one day, when we finally strike something like this, it makes it all worthwhile."