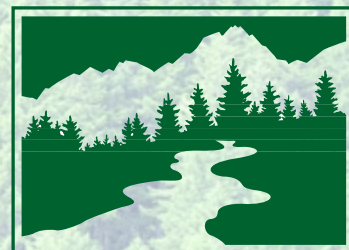


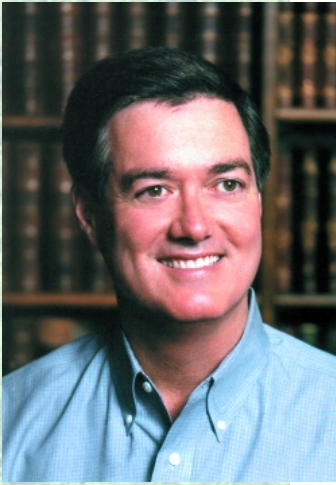


COLORADO



DEPARTMENT OF
NATURAL
RESOURCES

2002 REPORT



Dear Coloradan,

It is a shared belief among Coloradans that we live in one of the most spectacular areas in the entire world. Our natural landscapes are awe-inspiring, and our economy is more diverse than ever. The Centennial State has seen tremendous growth and improvements over the past few years, bringing with them many challenges and opportunities in the way we manage our resources.

Colorado's natural resources are among the most pristine and plentiful in the country. Our natural heritage includes the mighty Colorado River, which provides much of the West's water; diverse and numerous wildlife species, including the largest elk herds in the United States; some of the world's richest deposits of minerals; the nation's most beautiful state parks; and fifty-three mountains with 14,000-foot peaks. Colorado is truly second-to-none in the splendor and value of its natural resources.

One of the priorities of my Administration is to enhance the quality of life in Colorado. This means ensuring that we are good stewards of the land, water, and wildlife entrusted to us. We are proud of the work done by our natural resources professionals.

I invite you to read and take advantage of this report. It includes information on new and innovative projects we are working on to protect our environment for future generations, and to ensure that Colorado remains the best place in the country to live and raise a family.

Sincerely,

A handwritten signature in blue ink that reads "Bill Owens".

Bill Owens, Governor



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Colorado's forests are among the most diverse and beautiful in the country. Above, a hiker enjoys one of the many trails in the Colorado State Forest.



Dear Friend,

At the Colorado Department of Natural Resources, we have worked hard over the past three years to make Colorado an even better place to live, work and raise a family. Our eight divisions and fifteen boards and commissions have aggressively taken on the task given to us by Governor Owens — to protect what is special about Colorado while providing the resources for a healthy economy.

We have taken some dramatic steps to conserve and enhance Colorado's most treasured land, water, and wildlife. Our Division of Wildlife is leading a new nationally recognized program to recover endangered species — at the state level. Colorado State Parks has helped preserve our "crown jewels" for future generations. The Water Conservation Board has protected in-stream flows and natural lake levels throughout the state. The Oil and Gas Conservation Commission has established new precedents for protecting the environment, surface owners, and communities, while increasing natural gas production. In these and a host of other ways, the Department of Natural Resources has made tangible progress in improving Colorado.

This report is just a glimpse — a brief snap-shot — of some of the natural resources challenges that Colorado faces, as well as some of the successes of which we are most proud. As Coloradans move into an exciting future, there are many opportunities for protecting and enhancing Colorado's precious resources. We take very seriously our sacred responsibility to leave Colorado even better than we found it.

Sincerely,

A handwritten signature in black ink that reads "Greg E. Walcher". The signature is written in a cursive, flowing style.

Greg E. Walcher, Executive Director,
Department of Natural Resources



Education

The Department of Natural Resources shares Governor Owens' commitment to educating Colorado's future leaders about natural resources issues. Colorado's future depends in large measure upon the next generation understanding the vital natural resources issues that face our state. As an important part of its mission, the Department maintains several very effective programs for Colorado's youth, aimed at generating interest and creating opportunities to learn about land, water, and wildlife.



Prior to even picking up a rod or reel, children learn important lessons about fish and fish habitat as part of Youth Fishing Clinics. Above, children test water as a part of their angler education.

Natural Resources have been those of an interdisciplinary nature. *Project WILD* and *Project Learning Tree* have both seen tremendous success in Colorado. Staffed and implemented by Wildlife and Forestry Division employees, these programs focus on environmental education for students in formal school settings. Last year, the Division of Wildlife (DOW) trained 1,025 teachers in *Project WILD* techniques. *Project WILD* facilitators from Colorado also trained 158 educators from Native American communities in the four-corners area, and provided *Project WILD* training in Spanish for 100 bilingual educators from the Adams County school system. The goal of both programs is to assist students of any age in developing awareness, knowledge and skills that result in informed decisions, responsible behavior and constructive actions concerning wildlife and the environment.

The Department has also successfully engaged young people in Colorado through *Youth Fishing Clinics*. These clinics focus on teaching children how to be responsible anglers, while enjoying the outdoors. State-wide, the DOW staff has held more than 400 fishing clinics and taught 20,000 people how to fish. In the Denver metropolitan area alone,

Over the past three years, the Department has contacted tens of thousands of school children. Programs like *Youth in Natural Resources* (YNR), which gives high school and college-aged youth the opportunity to spend a summer earning money while working in state parks, wildlife areas, and other outdoor projects, are reaching students who might not otherwise have such an opportunity. Last summer, YNR had 151 students at 43 work sites across the state. These crews maintained and improved fisheries, fought noxious weeds at state parks, and worked to re-vegetate reclaimed mine lands.

Some of the most successful programs within the Department of



Giving young people the opportunity to learn about Colorado's natural resources is an important mission of the Department. Above, YNR students take a break from working to write in their journals.

- *Thirty-five schools throughout the state offer hunter education classes during school hours or as an after school elective. More than 1,000 Coloradans received their hunter education certification through this program last year.*
- *The Colorado Geological Survey has created several interactive CDs about energy resources in Colorado — all of which meet Model Content Standards — available to Colorado school teachers free of charge.*
- *In the Denver area alone, 7,200 children — many from inner city neighborhoods — participated in 80 fishing clinics sponsored by the DOW.*

Education

- *Last year, the DOW trained 1,025 teachers in Project WILD techniques, bringing the total number of current Colorado teachers who have received Project WILD training to more than 13,000.*
- *The Colorado Youth Corps Association contributed nearly 119 weeks of work by 259 youth corps members to accomplish trail work in 23 state parks.*
- *Over 400 volunteer hunter education instructors taught 800 classes providing 16,000 new and mostly young hunters with hunter safety and ethics training during 2000.*
- *The Avalanche Information Center's Web site, <http://geosurvey.state.co.us/avalanche/>, provides updated information for backcountry travelers. Daily updates are also available via e-mail.*

7,200 kids — many from inner city neighborhoods — participated in 80 fishing clinics sponsored by the agency. The clinics not only teach fishing skills but also offer the young students opportunities to learn about aquatic wildlife and habitat.

The Colorado Water Conservation Board coordinates and provides water education information to teachers, school children and adults. A Water Education Initiative was funded in 2000 that resulted in the creation of a CD-ROM containing a variety of water educational materials that was distributed to educators statewide. The next step will be the creation of a new water education foundation to promote a better understanding of water issues so Colorado citizens will understand water as a limited resource and make informed decisions.

Elsewhere in the Department, the Colorado Geological Survey has produced interactive educational CD-ROMs for use in the classroom. Adhering to the Colorado Department of Education's Model Content Standards for science, these CD-ROMs teach school children about the importance of energy resources and how they are responsibly utilized in Colorado. Teachers can obtain the CDs free of charge by contacting the Department of Natural Resources or the Colorado Geological Survey.

Although youth education programs have been a major focus, the educational goals of the Department of Natural Resources hardly stop there. In an attempt to protect Coloradans from deadly avalanche activity, the Colorado Avalanche Information Center (CAIC) — a program of the Division of Minerals and Geology — uses sound science and new technologies to provide education and information for all of Colorado's back-country visitors. Using the CAIC's Web site, visitors can get current reports on avalanche activity and winter weather throughout Colorado's beautiful but often dangerous back-country. The CAIC also dedicates a significant amount of time and energy to holding lectures and forums about avalanche safety in various Colorado communities.



Youth Fishing Clinics have offered angling education and experiences to children from all backgrounds, including many from Denver's urban neighborhoods.

Important Legislation

The Colorado Legislature has long supported an important educational mission at DNR. Representatives Gail Berry and Todd Saliman have backed numerous education programs in DNR, including recent authorization of severance tax funds for instructor CD-ROMs about water, geology, and minerals, which meet state standards. The Department's youth conservation corps, Youth in Natural Resources (YNR), has enjoyed especially strong support from Senators Ed Perlmutter, Penfield Tate, Ken Chlouber, Rob Hernandez, Doug Linkhart, Pat Pascoe, Terry Phillips, and Peggy Reeves. This program has allowed DNR to successfully reach over 1,700 young people over the past 11 years.



Rep. Berry



Sen. Perlmutter



Rep. Saliman



Sen. Tate

Wildlife Resources

Managing Colorado's wildlife resources is critical to the mission of the Department of Natural Resources. Colorado is home to large and healthy populations of game and non-game wildlife alike — both of which require unique and innovative stewardship. The DOW is the agency within DNR charged with protecting wildlife and providing people the opportunity to



Colorado's bald eagles are an endangered species success story. Since the DOW began monitoring the species in 1974 — when there was only one known nesting pair — nearly 50 new nesting pairs have been observed.

enjoy it. Although the job of wildlife management is continual, there have been several particularly important issues and accomplishments over the past three years.

Threatened and Endangered Species

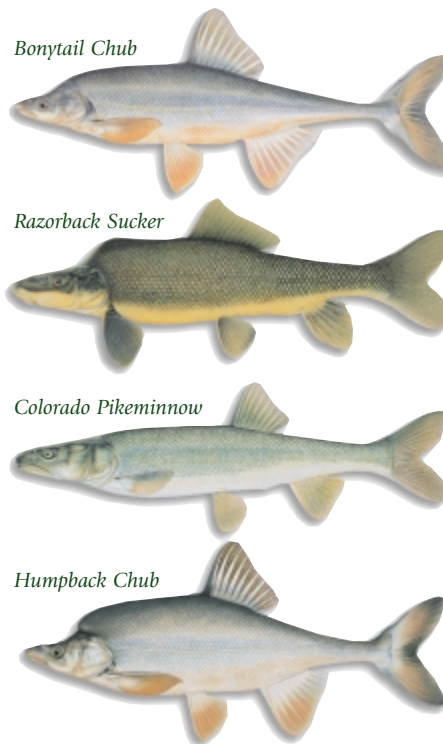
Colorado is quickly becoming one of the nation's leaders in the protection and recovery of endangered species. The use of sound scientific evidence and innovative partnerships has propelled Colorado into the national

spotlight. Black-tailed prairie dogs, Canada lynx, black-footed ferrets, boreal toads and endangered fish in the Colorado River are among the many species benefiting from Colorado's efforts to preserve, protect and enhance its wildlife.

Governor Owens joined the Division of Wildlife to celebrate the opening of the \$6 million Native Aquatic Species Restoration Facility southwest of Alamosa in June of 2000. It is the first state-owned hatchery in the nation specifically designed and built to raise threatened and endangered fish, amphibian, and mollusk species.

Among its first residents were a dozen boreal toads and hundreds of toad eggs, collected from breeding sites in May of 2000 to build a captive brood stock — as insurance against extinction. Listed as endangered in the state and "warranted" for listing at the federal level, the boreal toad is Colorado's only alpine toad species. The facility has been successful in hatching the eggs and, by the end of 2000, it housed toads from 11 imperiled populations throughout the state. Thousands of toads have since been reared at the facility in an effort to ensure the long-term survival of the species.

Also being raised at the facility are two of the four endangered fish of the Upper Colorado River Basin: the bonytail chub and the razorback sucker. The Native Species Facility has played a crucial role in the recovery of these fish as part of the larger Upper Colorado Endangered Fish Recovery Program.



Russell George was named Director of the Colorado Division of Wildlife in September, 2000. As director, Russ is responsible for managing Colorado's diverse and valuable wildlife resources, overseeing a staff of more than 740 people and is responsible for an annual budget in excess of \$80 million. Shortly into his tenure, Russ secured enterprise designation for the Division of Wildlife, giving the Division the financial flexibility needed to manage Colorado's wildlife. Russ is willing to tackle the tough issues, making managing Chronic Wasting Disease — a brain malady in deer and elk — a top priority for the Division by reallocating funding for research and control.

George, 54, was born and raised in Rifle. After graduating from Colorado State University, Russ received his Juris Doctorate from Harvard Law School and practiced in Rifle for 24 years. He served eight years in the Colorado House of Representatives and in 1998, Russ was elected Speaker of the House for his final term. He and his wife Neal, a Rifle public school teacher, have four sons.



Wildlife Resources

The Colorado Wildlife Commission is a ten-member board appointed by the governor. There are eight voting members and two non-voting members. The Wildlife Commission sets Division of Wildlife regulations and policies for hunting, fishing, watchable wildlife, as well as nongame, threatened and endangered species. It is also responsible for making decisions about buying or leasing property for habitat and public access, and for approving the Division's annual budget proposals and long-range plans. The Colorado Division of Wildlife receives no state tax revenue. All hunting and fishing license fees are deposited in a game cash fund, with the state Legislature having final authority over Division spending.

- **Rick Enstrom**, Lakewood, Chair
- **Robert Shoemaker**, Canon City, Vice Chair
- **Marianna Raftopoulos**, Craig, Secretary
- **Bernard L. Black**, Denver
- **Phil James**, Fort Collins
- **Thomas M. Burke**, Grand Junction
- **Olive Valdez**, Alamosa,
- **Brad Phelps**, Gunnison
- **Don Ament**, Commissioner of Agriculture
- **Greg E. Walcher**, Executive Director of the Department of Natural Resources

The Recovery Program was established in 1988 as a joint effort between 13 private and governmental organizations, including three states. The program was established to allow continued development and use of river water while protecting and recovering the endangered fish. During its first ten years, the Recovery Program was unable to agree upon quantitative goals for the recovery of the fish — goals that are now a reality.

As a driving force in the Recovery Program, the Department of Natural Resources led the effort over the past three years for the publication of recovery goals, which were finally completed in September, 2001. These recovery goals provide concrete numbers as to how many fish are needed to consider the species recovered, finally offering a light at the end of the tunnel. This huge success for Colorado is expected to serve as a model for the rest of the nation in achieving the recovery of endangered species, while protecting existing state laws.

The Division of Wildlife last year proposed specific actions to ensure that Colorado continues to have self-sustaining populations of black-tailed prairie dogs. Those actions included: closing hunting seasons for black-tailed prairie dogs, adjusting DOW policy on relocating the animals within counties, and implementing a program that would provide financial incentives for private landowners who maintain prairie dog colonies on their lands.

In 2000, the Colorado Wildlife Commission prohibited sport shooting of prairie dogs. A Department of Natural Resources study during 2000 indicated that black-tailed prairie dogs occupy at least 214,000 acres east of the Continental Divide. The Colorado Wildlife Commission



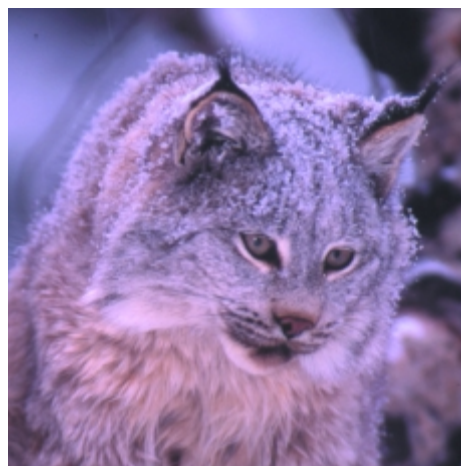
Black-tailed prairie dogs are the subject of a new management plan in Colorado. In 2000, a Department study indicated that the species now inhabits a minimum of 214,000 acres east of the Continental Divide. An updated survey is due in June of 2002.

lists black-tailed prairie dog as a species of special concern, and these conservation efforts will prevent its extinction.

Under management of the Colorado Wildlife Commission, wildlife biologists reintroduced Canada lynx in southwestern Colorado. At the end of 2001, Division biologists were actively tracking 44 lynx released since February of 1999 and amassing a great deal of new scientific information about the animals' habitat in the Southern Rockies.

Habitat Protection

The Division of Wildlife's Wetlands Program continued to protect wetlands and wetland-dependent species — a high priority for DOW biologists — through its Wetlands Initiative and Duck Stamp efforts. The Wetlands Initiative is voluntary and incentive-based, focusing on pro-



Colorado has introduced 96 Canada lynx over the past three years. While the success of the project will not be known for some time, wildlife biologists continue to carefully monitor the species and learn more about its habitat needs in the Rocky Mountains.

Wildlife Resources

protecting wetlands through landowner partnerships. By the end of 2000, phase one of the Wetlands Initiative was complete and more than 14,000 acres of wetland habitat and 85,000 acres of critical habitat adjacent to wetlands had been protected — either purchased, restored or created — benefiting more than 30 species. The Division and Wetlands Initiative partners, including Partners for Fish and Wildlife, Colorado State Parks, Ducks Unlimited, and the Nature Conservancy leveraged \$4.46 million from Great Outdoors Colorado into a \$17.4 million effort to protect the state's wetlands.

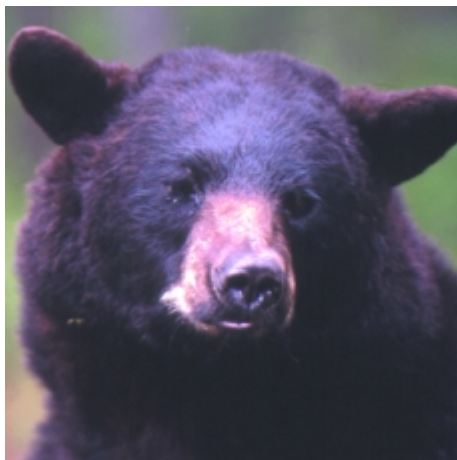
Since 2000, the Wetlands Initiative has protected another 5,699 wetland and wetland-associated-upland acres through conservation easements at a cost of approximately \$2.5 million, and it has restored another 2,722 acres at a cost of nearly \$1 million. By November of 2001, a total of 8,421 acres had been either protected or restored by the Wetlands Program.

A unique partnership between the Division of Wildlife and inmates at the Colorado Department of Corrections' (DOC) Buena Vista Correctional Facility has greatly improved aquatic habitat in the South Platte River basin in South Park. With the help of inmates in the Buena Vista vocational heavy equipment technology class, DOW biologists and engineers constructed a small dam and a high-flow flood channel, about seven-tenths of a mile long, off Three Mile Creek at Spinney Mountain State Wildlife Area in Park County. That channel has allowed silt in flood waters to be deposited in a large borrow area nearby, rather than in the main channel of the South Platte River, improving aquatic habitat there. The borrow area itself may ultimately provide wetlands and waterfowl habitat, as well. The DOW also works with the Colorado Water Conservation Board, which has authority to hold instream flow water rights, to protect and preserve habitat for aquatic species in streams throughout Colorado.

As a result of the partnership with the DOC and the Denver Water Department, DOW biologists and engineers created a 3,600-foot river channel for the South Fork of the South Platte River immediately downstream from Antero Reservoir. Inmates added boulders and other material to create spawning grounds and improve overall trout habitat in the channel. The unique arrangement has allowed wildlife biologists to create river and aquatic habitats and DOC officials to provide vocational skills for inmates. Colorado Contractors Association members serve on an advisory board that approves projects for the DOC vocational heavy equipment class.



Managing the largest elk herd in North America has its challenges. Wildlife biologists continue to study Chronic Wasting Disease to ensure the long-term health of both elk and deer in Colorado.



2001 was an unusual year for Colorado's black bear population. Freeze and drought hurt natural forage and forced many bears into lower elevations looking for food, resulting in numerous conflicts with humans.

Challenges for Wildlife

Over the past ten years, Colorado has become increasingly concerned about declining mule deer numbers. Colorado and its sportsmen have a strong desire to maintain quality mule deer

- *The Division of Wildlife's program for recovery of the prairie chicken was so successful that the Wildlife Commission authorized the first hunting season since 1937.*
- *More than 25,000 young people purchased special youth small game and big game hunting licenses last year. About 10 percent of all Colorado hunters are youth hunters.*
- *In April of 2001, the DOW stocked 7,000 endangered bonytail chubs into the Colorado River near Grand Junction.*
- *By 2001, nearly 85,000 acres of critical habitat connected to wetlands had been protected — either purchased, restored, or created.*

Wildlife Resources

- *Since 1999, four hatcheries that previously were known to have WD have tested negative, and four more hatcheries are expected to follow suit over the next two years — essentially reversing the numbers of WD — positive fisheries across the state.*
- *Bob Holder, a District Wildlife Manager in the Trinidad area, was named Officer of the Year by the North American Wildlife Enforcement Officer Association (NAWEOA) — selected by his peers from all across the country.*
- *Colorado continues to be the elk capital of the world, home to 260,000 animals — the largest herd in North America.*

populations. And while numbers have varied historically due to climate, habitat, hunting practices, and predators, it is clear that overall numbers have declined since the 1950's. Herds have improved in recent years, but are still not back to desirable levels. Wildlife biologists have undertaken several different studies, but the studies so far provide more questions than answers. Disease, climate, habitat, predation, and a myriad of other factors have been identified, but a definitive cause for declining deer numbers is yet to be established. Gaining a better understanding of this phenomenon remains a top priority for the managers of wildlife in Colorado.

The issue of Chronic Wasting Disease (CWD) in deer and elk in Colorado has been a difficult issue for wildlife biologists for years, but has recently gained much public attention. Chronic Wasting Disease is a neurological disease found in deer and elk. It attacks the brain of an infected animal, causing it to become emaciated, display abnormal behavior, lose bodily functions and die. Health officials have found no evidence that the disease, which belongs to a family of diseases known as transmissible spongiform encephalopathies, can be transmitted to humans or other species, yet it remains a serious concern to wildlife officials and the public.

CWD has been found in wild herds in portions of northeastern Colorado and southeastern Wyoming for more than three decades, and two deer with chronic wasting disease were recently found in the northwest corner of the Nebraska panhandle. The disease has also been found in captive deer and elk in five states and one Canadian province. Recently, the Wildlife Commission adopted rules that give DOW biologists, in consultation with the Department of Agriculture, authority to permit captive wildlife brought into the state. The Division will now share authority over deer and elk importation with the Colorado Department of Agriculture. Division of Wildlife biologists have made significant progress toward eliminating Whirling Disease (WD) from state fish hatcheries over the past three years. Since 1999, four hatcheries that previously were known to have WD have tested negative, and four more hatcheries are expected to follow suit over the next two years — essentially reversing the numbers of WD positive fisheries across the state.



Angler satisfaction in Colorado has steadily increased in recent years due to habitat improvements and new fishing opportunities.

Whirling Disease is a parasitic infection that attacks cartilage and the nervous system in rainbow trout and other species, and causes the fish to swim in circles when stressed. Despite the WD problems, the DOW stocked nearly 1.25 million catchable-sized (10+ inches) WD negative trout and over 9.5 million fingerling-sized trout and kokanee during 2001.

Hunting and Fishing Recreation

Division of Wildlife managers and the Colorado Wildlife Commission have continued their aggressive effort to improve fishing — especially trout fishing — in Colorado over the past three years. The Commission continued the special two-fish bag limit for some select waters on Colorado's Western Slope. An important step to improving fishing opportunities has been the significant investment in private-hatchery fish, leading to well-stocked streams and improved hatchery health.

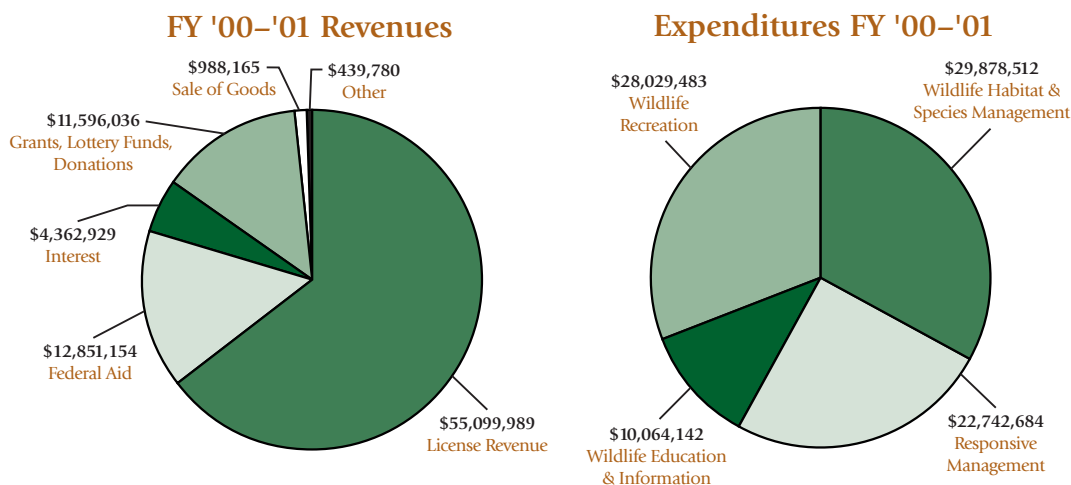
Wildlife Resources

The Division of Wildlife's "Fishing Is Fun" program completed projects in eight communities throughout the state in 2001. Through "Fishing Is Fun," the DOW provides grants matching local funds to improve fish habitat and angler access. Agency officials estimated that the projects combined to provide new fishing opportunities for more than 45,000 anglers annually.

These and previous efforts appear to be paying off. A recent Division trend analysis of different statewide studies, such as license sales, trout angling recreation days, angler satisfaction and angler use of Western Slope waters, led to the conclusion that angler satisfaction with catching fish and enjoying their surroundings has increased over the last several years. The fishing in Colorado is getting better every year.

Big game hunting in Colorado also continues to prove enormously popular with sportsmen. For all methods of take during the 2000 big game seasons, 246,778 hunters took 60,120 elk (a 24 percent success rate) and 84,335 hunters took 37,908 deer (a 45 percent success rate). Heading into the 2001 hunt, Colorado had nearly 490,000 deer and almost 260,000 elk. Responding to the demands of resident sportsmen and others, the Colorado Wildlife Commission guaranteed Colorado resident hunters at least 60 percent of the deer and elk licenses issued via computer drawings. This policy began in 2001.

Hunting and fishing recreation continues to play a large role in both wildlife management and the health of the Colorado economy. The Department is committed to the future health and responsible management of Colorado's precious wildlife.



- *Big game hunting pumps an estimated \$800 million a year into the Colorado economy.*
- *The Division has set aside 11 state wildlife areas specifically for youth/mentor hunting, with about 4,000 acres in 10 counties now providing big and small game opportunities just for young hunters.*
- *DOW officials estimate that expenditures by Colorado anglers add more than \$900 million to the Colorado economy annually.*

Important Legislation

Over the past three years, several legislative initiatives have given the DOW much-needed flexibility in the management of wildlife. Representative Joe Stengel's HB 01-1012 gave the cash-funded DOW "enterprise" status, thus freeing it from certain TABOR restrictions. Representative Steve Johnson carried legislation (HB 00-1314) that will help broaden public support for endangered species management at the state level. Senator Terry Phillips and Representative Fran Coleman are important supporters of the Total Licensing Project, putting DOW on the cutting edge of e-government with online and electronic sales of hunting and fishing licenses.



Rep. Stengel



Sen. Phillips



Rep. Coleman



Rep. Johnson

Water Resources



Hal Simpson was appointed State Engineer on August 7, 1992. As State Engineer, he is responsible for the direction and management of the **Division of Water Resources**, which has a staff of 240 and a budget of approximately \$14 million. The State Engineer is Colorado's commissioner on five interstate compacts and is responsible for assuring compliance with these compacts. The State Engineer is also the Executive Director of the Colorado Ground Water Commission, and is the Secretary of the Board of Examiners for Water Well Construction and Pump Installation Contractors.

Hal received a B.S. and M.S. in Civil Engineering from Colorado State University in 1967 and 1969, respectively. Hal's Masters Degree specialized in water resources and ground water hydrology. Additional post-graduate work in water resources was done at the University of Colorado in water resources.

Hal is a registered professional engineer in Colorado and is a member of Chi Epsilon. He is also a second generation native from the Greeley area and grew up on a dryland wheat farm with a small dairy.



Spring and summer runoff captured in reservoirs from the high country provides 70% of Colorado's total annual surface-water yield. Above, the Cache la Poudre rushes through Comanche Peak Wilderness in Larimer County.

board is the water policy-making body of Colorado, administers the construction loan and instream flow programs, and oversees Colorado's complex water relationships with other states.

California to Live Within its Colorado River Apportionment

Colorado worked closely with the other six Colorado River Basin States to ensure that California implements its new Water Use Plan, a legal agreement to reduce California's use of the Colorado River. California's net water usage on the Colorado totaled 5.1 million acre-feet in 1999. In January 2001 the U.S. Department of the Interior finalized the interim criteria developed by Colorado and other Colorado River Basin states that will ensure California lives within the 4.4 million acre-feet of Colorado River water to which it is entitled under the Interstate Compact. The deal begins a 15-year phase-in of the new rules on the Colorado River.

Colorado's future directly depends on its ability to develop its Colorado River Compact apportionment. Continued growth, drought and other pressures strain Colorado's ability to meet increasing demands. The failure to develop new water supplies has not slowed Colorado's rampant growth. It has simply contributed to the dry-up of irrigated agriculture. Without new water supplies, the conversion of agricultural water rights could continue until the state's valuable farmland, open space and wildlife habitat is but a memory. Protecting our water future against other states' current needs is the most important water accomplishment in recent years.



Above Morrow Point Reservoir, west of Gunnison. Water from dams produce hydroelectric power for rural Colorado and irrigates the Western Slope's most productive agricultural lands.

Water Resources

CWCB Instream Flows

The State instream flow program provides the best avenue for real environmental protection on forest lands. The CWCB, created in 1937, is responsible for the appropriation, acquisition and protection of instream flow and natural lake level water rights to preserve the natural environment. Since the creation of the State's Instream Flow Program in 1973, the CWCB has appropriated instream flow water rights on more than 8,000 miles of streams and more than 300 natural lakes.

Rather than heavy-handed federal demands for "bypass flows," Colorado asked Congress to create an incentives program funded by the Land and Water Conservation Fund to protect instream flows. Consistent with state laws, this program could lead to a new era of cooperation and comity with the federal government. It would allow the purchase of senior water rights from willing sellers for conversion to instream flow protection under state water law.

CWCB to Establish Rules on Recreational Flows

With the passage of Senate Bill 216 during the 2001 legislative session, the legislature created statutory recreational water rights. The CWCB has established rules on how applicants will work through an administrative process with the Board prior to water court filings. This represents a significant evolution of water law within the priority system, recognizing recreational use within the stream as a beneficial use of Colorado water. Detailed information can be found online, at www.cwcb.state.co.us.

Animas-La Plata Moving Ahead

Colorado continues to work to see that the Colorado Ute Settlement Act Amendments of 2000 passed by Congress result in the construction of the long-promised Animas-La Plata project in the near future. The State is expected to sign a cost-sharing agreement with the parties soon.

Federal Forest Management Decreases Water Yields

Colorado is urging the federal government to live by the same standards to which states and water providers are held under the Endangered Species Act. Colorado worked closely with the U.S. Forest Service to arrange a tour for State legislators, congressional staff, local officials and interested citizens of the Fraser Experimental Forest in Western Colorado. There, Forest Service research has concluded thousands upon thousands of acre-feet of water are being lost to evaporation each year due to mismanagement of forestlands.



The same poor forest management that lead to millions of acres of destructive forest fires throughout the West is depriving river systems of precious water.

Dam Safety

During FY 00-01, the Division of Water Resources conducted 519 dam safety inspections and 163 construction inspections with 141 follow-ups. Colorado currently has 198 dams restricted from full storage due to various structural problems such as serious leakage, cracking and sliding of embankments, and inadequate spillways. Dam safety information is available online, at www.dwr.state.co.us.



Rod Kuharich was appointed by Governor Bill Owens as Director to the **Colorado Water Conservation Board** in November 2000. Rod has a Bachelors Degree in Political Science from St. Ambrose University in Davenport, Iowa and a Masters Degree in Environmental Planning from Southern Illinois University. Rod, a father of three, lives with his wife Martha, a second grade school teacher.

Rod spent 24 years working for Colorado Springs Utilities in Resource Planning and Development, forecasting natural gas, electric and water demands, and planning to meet those demands. He also served as the Colorado Springs Utilities manager of government affairs and was responsible for regulatory and legislative duties as they applied to electric, gas, water and wastewater. Rod was previously involved in water court, ground water and surface water issues, air and water quality as well as land use regulations.



Water Resources

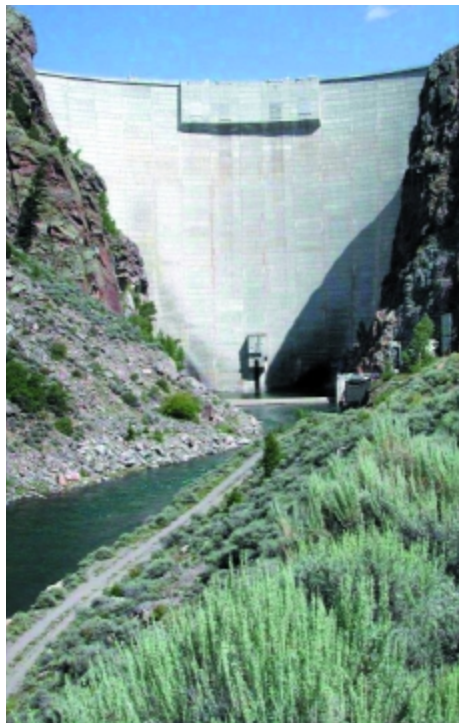
The Colorado Ground Water Commission is a regulatory and an adjudicatory body authorized by the General Assembly to manage and control designated ground water resources within the State of Colorado.

- Eugene A. Bauerle, Julesburg
- Anne J. Castle, Denver
- Larry W. Clever, Grand Junction
- Dennis W. Coryell, Burlington
- Richard F. Huwa, Keenesburg
- Robert R. Loose, Wiggins
- Earnest L. Mikita, Calhan, Chairman
- Charles "Max" Smith, Walsh, Vice Chairman
- Vacant

The Colorado Water Conservation Board is made up of nine geographic appointees, serving terms of three years.

- Greg Walcher, DNR Executive Director
- Robert O. Burr, N. Platte River
- Eric Wilkinson, S. Platte River
- Carolyn McIntosh, City and County of Denver
- Harold Miskel, CWCB Chair, Arkansas River
- Raymond Wright, Rio Grande
- Donald Schwindt, CWCB Vice Chair, San Miguel, Dolores, Animas and San Juan Rivers
- Keith Catlin, Gunnison-Uncompahgre Rivers
- Greg Hoskin, Colorado River Mainstem
- David H. Smith, Yampa and White Rivers

Ex-officio members include the Commissioner of Agriculture, the State Engineer, the Attorney General, the Director of the Division of Wildlife, and the CWCB Director.



DWR conducted 519 dam safety inspections during FY '99-'00. Above: Morrow Point Dam—the second of the three dams that make up the Aspinall Unit in Gunnison County.

Decision Support Systems

The Department of Natural Resources two water divisions are working cooperatively to manage, develop and maintain three decision support systems: the new South Platte Decision Support System; the Rio Grande Decision Support System; and the Colorado River Decision Support System. These products will provide the State of Colorado, its agencies, and water users with a comprehensive system for organizing, accessing, sharing and evaluating water resource data. The CDSS is available online, at www.cdss.state.co.us.

Basin Planning Fact Sheets

The CWCB has published educational fact sheets for the eight principal watersheds in Colorado. The fact sheets are a compilation of information concerning water supply, flood events, stream and lake protection, demographics and water use trends in each watershed. The fact sheets were prepared to help support local basin water planning. Meetings were also hosted throughout the state by Board members to gather information being used

to prepare a new long-range water plan. Basin planning fact sheets are available online at www.cwcb.state.co.us.

Pilot Water Banking Program

The State Engineer has begun the rule making process authorized by recent legislation to implement a pilot water bank in the Arkansas River Basin. The pilot water bank is being developed by the DWR and funded by the CWCB to mitigate the impacts of agricultural water transfers in the Basin. The bank will function as a clearinghouse, matching willing lessors of stored water with those wanting to lease water, thus allowing temporary transfers without permanently drying up farmland.

Addressing Floods & Droughts

In December 1999, Governor Owens sponsored the Governor's Conference on Flood and Drought Preparedness. There, participants learned the question is not "if" but "when" a severe drought will again strike Colorado, and that water storage offers the only long-term protection against drought. The CWCB has published a "Planning for Drought" brochure, released a dam site inventory of the State, and surveyed local entities for the existence of drought plans. A majority of Colorado communities have no such plan in place, so the CWCB is providing assistance to many.

The CWCB has also begun a Drought Planning Assessment — a water provider survey to collect information about growth, water supplies and recent droughts. The CWCB also created a "Flood Emergency Response Program" to expand and fund flood response and recovery programs.

Water Resources

Monitoring Colorado's Streams

The DWR and the CWCB sponsored a Streamgaging Symposium in May 2001 and are engaged in various projects including: ongoing coordination efforts to enhance stream gages to provide low and high flow warnings; developing winter gaging technologies; and developing flood gages throughout the state. The DWR operates 260 streamgages and 600 ditch and canal gages, and performs 2,700 streamflow measurements annually. The Colorado satellite-linked monitoring system provides real-time water resources data on a continuous basis from key gaging stations across the State of Colorado.



A center-pivot irrigation device operates near Gunnison. New technology like this has helped increase the efficiency of irrigation, saving thousands of acre-feet annually.

Colorado filed a Statement of Opposition to a National Park Service filing early in 2001 in Colorado water court. The National Park Service filed for quantification of reserved water rights to the Black Canyon of the Gunnison National Park — a filing which state experts believe will seriously impact power production, fish habitat and may even cause flooding in the town of Delta. The Department of Natural Resources sponsored a legislative tour of the Black Canyon of the Gunnison and the Aspinall Unit to discuss water and power issues with federal, state, and local officials. The affects of the National Park Service's claims on local citizens, Colorado's compact water, and the river's fishery were all topics of great concern.

Bypass Flows

In March 2001, six Western states filed legal briefs supporting Colorado's position that the U.S. Forest Service has no legal authority to impose bypass flows on water providers as a condition of permit renewals. Bypass flows are not just controversial, they fail to provide real environmental protection. Alternative strategies such as reliance on state instream flow programs more effectively protect resources than litigation or bypass flows — and without tampering with property rights or state water laws.

Colorado Challenges Federal Reserved Water Rights

- The Department helped negotiate the historic agreement under which California will reduce its use of the Colorado River to its entitled 4.4 million acre-feet, allowing Colorado to protect its entitlement to Colorado River water for future generations.
- The Department has led an effort called the River Surface Recreation Forum to address the complex issue of the right to float through private property.
- Colorado's Division of Water Resources began providing well permit applications and instructions on the Internet to allow customers immediate and convenient access.
- The CWCB adopted new policies to strengthen the management and accountability of the Construction Fund, which helps finance water projects and studies.

Important Legislation

The Colorado Water Conservation Board and the Division of Water Resources were given a new charge in 2001. Championed by Senators Lewis Entz and Deanna Hanna, as well as Representatives Lola Spradley, Brad Young and Diane Hoppe, SB01-216 recognized recreation as a "beneficial use" of water for the first time in Colorado, and set conditions for local governments and water districts to hold such water rights. This important legislation created a framework for managing and enhancing Colorado's burgeoning recreation economy within current state water law.



Sen. Entz



Rep. Spradley



Sen. Hanna



Rep. Young

Recreation Resources



Lyle Laverty was hired as the Director of the Division of State Parks in December, 2001. He joins DNR after a very distinguished career with the USDA Forest Service. Lyle became Regional Forester of the Rocky Mountain Region in November 1997. As regional forester, he was responsible for managing natural resource activities on more than 22 million acres of America's national forests and national grasslands in Colorado, Kansas, Nebraska, South Dakota and Wyoming.

During a previous headquarters' assignment, Lyle spent nearly six years in the Forest Service's Washington, D.C. office working with the policy analysis, recreation, and Resource Planning Act staff units.

A native of California, Lyle received a Bachelor of Science in forest management from Humboldt State University in northern California, and a Master's Degree in public administration from George Mason University. Lyle enjoys skiing, hiking, and biking. He and his wife, Pam, have two grown children, Lori and Chad.



Coloradans enjoy the outdoors in many ways, whether camping and hiking in Golden Gate State Park, or boating and fishing at Lake Pueblo State Park. The Department's Division of State Parks and Outdoor Recreation manages Colorado's many state parks. State parks offer an excellent way to conserve open space and habitat, while also meeting the growing demand for outdoor recreation. Recognizing the importance of outdoor recreation and its affect on the quality of life in Colorado, Governor Owens proclaimed 2000 the "Year of State Parks." As part of this concerted effort to increase the quality and visibility of outdoor recreation in Colorado, new state parks are preparing to open to the public in El Paso and Bent Counties, with state agencies placing additional emphasis on creating urban parks.

New and Expended Parks

Colorado state parks attract nearly 11 million visitors per year at more than 40 parks across the state. The past three years have witnessed several new state parks, including Lone Mesa State Park in Dolores County, Cheyenne Mountain State Park in El Paso County, and John Martin Reservoir State Park in Bent County.

An agreement was reached with the Army Corps of Engineers to create John Martin Reservoir State Park. This milestone brings the first State Park to the people of Southeastern Colorado, realizing a long-term goal of the area's residents. Major renovations to the facilities are underway, with a grand opening slated for late spring 2002. The addition of this state park will bring the economic, recreational and educational benefits of Colorado State Parks to the people in the southeastern corner of the state.

Cheyenne Mountain became part of Colorado State Parks, with the purchase of 1,680 acres adjacent to the City of Colorado Springs. The \$16.8 million purchase will eventually establish the first State Park in El Paso County, with the park slated to open within two to three years.



Biking at Cherry Creek State Park.



State Parks offer numerous recreational opportunities. Above, a rock climber heads up one of the many steep faces at Eldorado Canyon State Park.

Of course, new parks are not the only addition to the State Parks system. New acreage has been added in several parks, including the highly-publicized acquisition of East and West Brush Creek, now part of Sylvan Lake State Park in Eagle County, as well as the addition of Elk Falls and the Davis Ranch to Staunton State Park in Jefferson and Park Counties.

During 2000, 1,782 acres along Brush Creek were added to Sylvan Lake State Park. The \$14 million purchase realized one of the major goals of Eagle Valley citizens, the preservation of this spectacular gateway to Sylvan Lake and the Holy Cross Wilderness Area.

Recreation Resources

Since 1999, 18,786 acres of land have been purchased for new parklands or to buffer existing parks.

A model "cost-share" between Colorado State Parks and the Bureau of Reclamation in 1995 led to renovation of five parks on the Western Slope, with \$15 million in federal funds. Two park renovations are complete, a third underway, and all five parks will be finished within three years. The success of that program and support from key state and federal legislators led to another cost share with the Army Corps of Engineers, signed by President Bush in 2001. The \$30 million renovation project will bring \$15 million in federal funds to Cherry Creek and Chatfield state parks. These two parks boast a combined annual visitation of more than three million.



Water skiing and motorized water recreation are very popular in Colorado.

Staff and Support

Part of the process of expanding requires additional staff support at new and larger state parks. A study by consultant KPMG revealed that Colorado State Parks suffered from critical understaffing. The lack of sufficient resources impacted the agency's ability to meet the growing needs of Coloradans for safe outdoor recreation. Increasing staff levels in the field became a priority for Governor Owens as a way to better serve Coloradans in their state parks, and the Full Time Employee (FTE) initiative was passed by the Colorado State Legislature. Forty new employees were hired during 2001, and another 26 will be added as funds permit. The cost of these employees will be paid through cash funds generated from park fees, ensuring that the new staff costs do not adversely impact Colorado's taxpayers.



Cabins and yurts are a nice affordable way to enjoy overnight stays at state parks.

As Colorado State Parks evolve to better serve the public, the addition of new amenities that meet market demand while preserving the special character of our beautiful parks became increasingly important. Along with numerous renovation projects and additional campgrounds, cabins and yurts have been added to many state parks. Cabins and yurts near the Denver metro area, at Golden Gate

Canyon, compliment those at Western Slope parks, like Ridgway, Sylvan Lake and Mancos. These new facilities are indicative of the new direction Colorado State Parks are taking to provide quality outdoor recreation that pays for itself.

Trails, Natural Areas, and Motorized Recreation

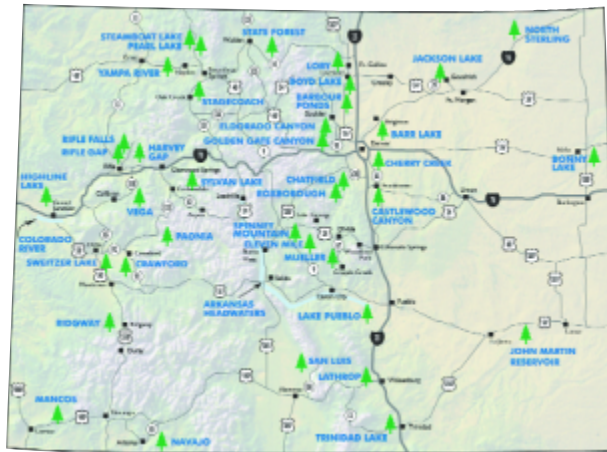
Park management is only one of the responsibilities of the State Parks Division. Statewide recreation, education, and resource protection programs are all part of the day-to-day business of State Parks. The Division's State Trails Program has served as a national

The five-member Colorado Board of State Parks and Outdoor Recreation represents the North, West, South and Metro regions plus one member-at-large. Appointed by the Governor and confirmed by the Colorado Senate, board members serve four year terms and no more than three members may be from one political party.

- **Edward C. Callaway**, Mt. Crested Butte, Chair
- **Doug Cole**, Longmont, Secretary
- **Thomas Glass**, Frisco
- **Wade A. Haerle**, Grand Junction
- **Dr. Tom W. Ready**, Pueblo

Recreation Resources

- *To improve customer service, an additional 60 staff are being added to State Parks to address years of neglect. These new staff positions will work on the ground as park rangers, technicians, and tourist assistants.*
- *In an attempt to become more accessible, State Parks has made reservations and registration of OHVs, boats, and snowmobiles available online at www.parks.state.co.us.*
- *Between new state parks and the additional land acquisitions of existing parks, over 18,786 new acres have been gained over the past three years.*



model for making grants that invest in trails of all kinds in ways that are sensitive to vital habitats. Boat and snowmobile registrations, along with river outfitter licensing programs provide boat safety education and encourage safe boating practices on all waters in Colorado.

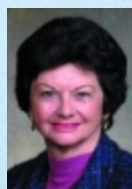
The State Trails Program continues to make Colorado the best place in the world to safely and responsibly enjoy the outdoors. The trails program also registers snowmobiles and off-

highway vehicles — now available online at the State Parks Web site: www.parks.state.co.us. Customer service has been improved with the addition of online reservations and registration of snowmobiles, off-highway vehicles and boats. These innovations continue Colorado State Parks' role as a leader in recreation web-based technology.

As a part of the continued effort for increasing state trails, Colorado State Parks has embarked on an ambitious plan to create a trail from Fort Collins to Trinidad. The Colorado Front Range Trail would link existing trails systems with new trail corridors to create a pathway between Colorado's burgeoning population centers. Local officials and stakeholders met along the corridor to determine the best route and voice their support for the ambitious project. A detailed plan to make the Colorado Front Range Trail a reality will be released in 2002.

Colorado Natural Areas preserve some of the finest examples of Colorado's original and unique landscapes for the benefit of present and future generations. Sites qualify as Colorado Natural Areas when they contain at least one unique or high-quality feature of statewide significance, including native plant communities, geologic formations or processes, paleontological localities, or habitat for rare plants or animals. Natural areas may be on public or private land and are designated through voluntary agreements with landowners.

Colorado's outdoor recreation is like no other in the world. Thanks to the work of Colorado State Parks, some of the state's finest "crown jewels" are conserved for the enjoyment of all Coloradans, for our visitors and for future generations.



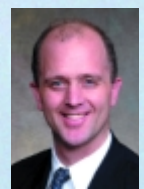
Sen. Anderson



Sen. Reeves

Important Legislation

After several years of adding new state parks, the major issue for the legislature in the last two years has been the effort to properly staff state parks, through the "FTE Initiative." Also, state parks like Cherry Creek, Highline Lake, and the new park at John Martin Reservoir in Bent County, are seeing major improvements in facilities. These efforts were led by Senator Norma Anderson — a long term Parks supporter — Senator Peggy Reeves and Representatives Tom Plant, Ken Kester, and Lauri Clapp.



Rep. Plant



Rep. Kester

Energy Resources

The Department of Natural Resources is charged with promoting, developing, enhancing and protecting all of Colorado's natural resources. This includes energy resources, such as coal, natural gas, and oil. The nature of these resources requires the Department to closely monitor and regulate extraction to ensure that the environment is protected, and that



Revenue from oil and gas wells generates much-needed supplemental income for farmers and ranchers in rural Colorado.

Colorado's power and energy needs are met in a sustainable manner. The two divisions within the Department that regulate the extraction of energy resources are the Division of Minerals and Geology (DMG), which regulates mining, and the Colorado Oil and Gas Conservation Commission (COGCC).

exploration and production of oil and gas resources, the prevention of waste, the protection of public health, safety and welfare, the environment, and the property rights of mineral and surface owners. The COGCC seeks to serve, solicit participation from, and maintain working relationships with those having an interest in Colorado's oil and gas natural resources.

Improving Technologies

One of Colorado's largest potential natural gas resources has been identified as the Williams Fork Tight Gas Sands in the Piceance Basin of Northwest Colorado. Rough estimates of natural gas potential in that area are on the order of 100 trillion cubic feet, which would take 100,000 new wells operating for well over 100 years to produce. Statewide, the U.S. Geological Survey estimates Colorado's natural gas reserves at nearly double that amount. Several operating companies have applied new drilling and completion techniques to reduce drilling time and well costs, and improve completion efficiency.

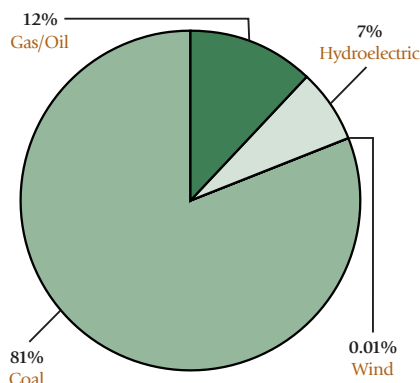
Directional drilling technology has been applied to minimize surface disturbance while still providing the high density of bottom hole locations necessary to develop these unique gas resources. Multi-well surface sites are now being built at densities generally ranging from one site per 40 acres to one site per 160 acres. Bottom hole well locations developed by directional drilling from these multi-well surface sites have been as dense as one bottom hole location per 10 acres. Some companies have applied improved drilling and completion techniques to expand the geographic extent of the basin proven to

Colorado's power and energy needs are met in a sustainable manner. The two divisions within the Department that regulate the extraction of energy resources are the Division of Minerals and Geology (DMG), which regulates mining, and the Colorado Oil and Gas Conservation Commission (COGCC).

The Oil and Gas Conservation Commission

The Colorado Oil and Gas Conservation Commission promotes the responsible development of Colorado's oil and gas natural resources. Responsible development effectively balances the efficient

Electrical Output in Colorado (by Energy Source)



Rich Griebeling has served as Director of the **Colorado Oil and Gas Conservation Commission** since 1993. Prior to his current position, his career included 20 years of private sector oil and gas experience in several international and domestic locations. Assignments included a variety of drilling, production, construction, evaluation, and exploration responsibilities. His previous private sector position was Vice President of Exploration and Operations at NICOR Oil and Gas Corporation.

Rich's education background includes a Bachelor's Degree in Petroleum Engineering from the Colorado School of Mines and a Masters Degree in Business Administration from the University of Colorado at Denver.

Rich and his family pursue several outdoor sports including hiking, backpacking, canoeing, fishing, and hunting.

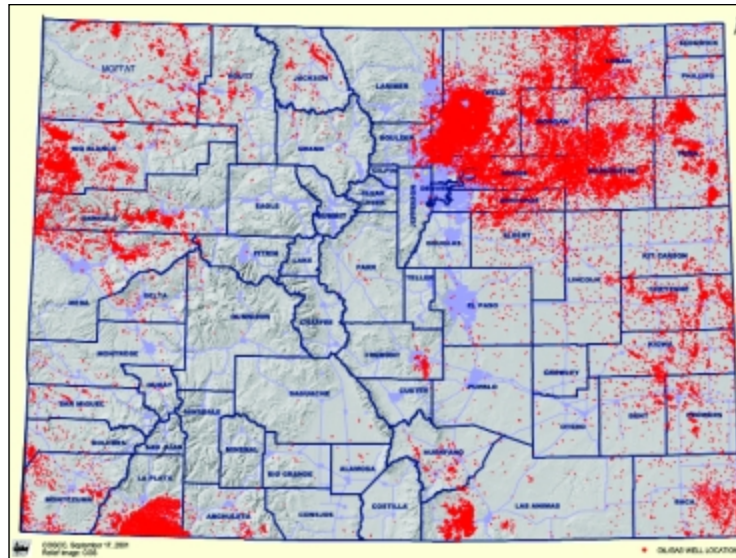
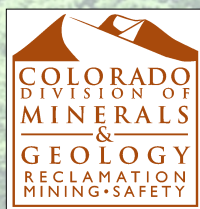


Energy Resources



Mike Long has been the Director of the Division of Minerals and Geology since the inception of the division nearly ten years ago. Mike received a Bachelor of Science Degree from Southern Illinois University in 1976. He has done graduate work at SIU and Western Michigan University.

In 1981 Mike began work with the Colorado Mined Land Reclamation Division as a Reclamation Specialist. Before becoming Director of the Agency in 1992, he held positions as a Senior Reclamation Specialist and as Supervisor of the Coal Mining Program. He also served as Deputy Director of the Department of Natural Resources for the state of Indiana, for 18 months. In addition, with consolidation efforts within the Colorado Department of Natural Resources, he assumed responsibility of the Department's Mine Safety and Training Program and the Colorado Geological Survey.



Above, oil and gas well sites in Colorado, represented by red dots.

years. New computerized long wall mining equipment has increased both production and recovery rates as well as miner safety at underground operations. Technological improvements have also allowed Colorado underground operations to set world records in both single shift and daily production.

New mining technologies are not limited to underground operations. Larger computerized haul trucks, shovels and draglines are increasing efficiency and lowering costs at Colorado's surface operations. Capital investment in these newer technologies is allowing coal to be produced at record levels in Colorado. In fact, production over the past three years has hovered around 30 million tons per year, and could double in the near future.

As coal-mining technologies have improved over the past few years, so too has the percentage of underground Colorado coal mines. Underground mines disturb less land and require less reclamation of land.



The national demand for energy has created major opportunities for Colorado, and serious challenges. Increased drilling density, such as this 20-acre spacing in Garfield County, has created more controversy than ever, and led to creative new approaches.

be commercial for natural gas development. The OGCC believes a significant portion of the extensive natural gas resources in the Piceance Basin can be economically developed at current market prices of over \$2 per million BTU.

Similarly, improvements in mining methodology and equipment have improved mining efficiencies dramatically over the past three

years. Technological improvements are not restricted to the extractive portion of the energy cycle. Improvements in both the efficiency in burning coal and collection of coal combustion by-products allows for the generation of less expensive electricity and increased environmental protection.

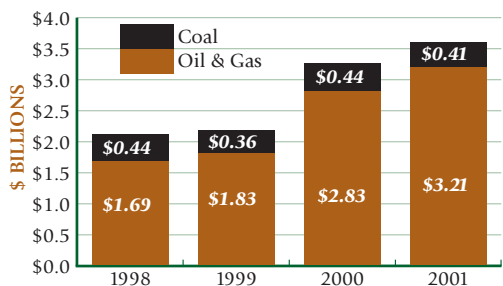
Production

The production of oil, gas, and coal has a tremendous economic impact on Colorado.

Energy Resources

Whether it is through state severance tax revenues, the state's share of federal mineral lease royalties, or local property taxes, Colorado's energy resources generate nearly \$200 million dollars a year. These funds go to counties and schools, to the Department of Local Affairs as energy and mineral impact assistance grants, and the Department of Natural Resources to finance its programs. There are no general tax revenues in the DNR regulatory programs.

**Colorado Production Values
(1998–2001)**



Colorado's eastern plains have also produced a significant amount of oil and gas, with a large concentration of well sites in Weld, Washington, Yuma, Adams, Morgan, and Logan Counties. Oil and gas wells provide an important economic boost for agricultural communities. For farmers and ranchers, the additional income that a well site provides can mean the difference between keeping the land in agriculture or having to sell it.

Oil and Gas Law Reform

The most fundamental reform in oil and gas laws in a generation was adopted by the legislature with the passage of the property owner notification bill, House Bill 01-1088. It requires that property buyers be notified in advance when a third party owns mineral rights under the same land, warning potential homebuyers of the specific laws on severed mineral rights, and helping avoid future conflicts between surface and mineral owners.

The Department of Natural Resources continues to face the challenges that come with managing Colorado's energy resources. But with the help of the mineral industry, production levels have risen, often with positive impacts on the environment. This trend toward increased energy production and value in Colorado's economy, without harming the environment, is sure to play a vital role in protecting Colorado's future.

The Division of Minerals and Geology

The Division of Minerals and Geology (DMG) is responsible for mineral and energy



Colorado's energy industry has seen favorable growth over the past three years. In 2001, energy production in Colorado reached nearly \$4 billion – oil and gas production of \$3.21 billion, and coal production of over \$400 million. Of course, energy resources are more abundant in some parts of the state. Nearly 70% of mineral production value came from Western Colorado in 2000, especially from the Southwest region. In fact, 60% of Colorado's natural gas is produced in La Plata County.

The Colorado Oil and Gas Conservation Commission (COGCC) promotes the responsible development of Colorado's oil and gas natural resources. Responsible development effectively balances the efficient exploration and production of oil and gas resource, the prevention of waste, and the protection of public health, safety and welfare, the environment, and mineral owners' correlative rights. The COGCC seeks to serve, solicit participation from, and maintain working relationships with all those having an interest in Colorado's oil and gas natural resources.

Current Commissioners are:

- Tom Ann Casey, Durango
- Brian Cree, Littleton
- Michael W. Klish, Grand Junction
- Peter M. Mueller, Littleton
- Adran "Abe" Abner Phillips, Evergreen
- Lynn J. Shook, Akron
- Stephen A. Sonnenberg, Lakewood

Energy Resources

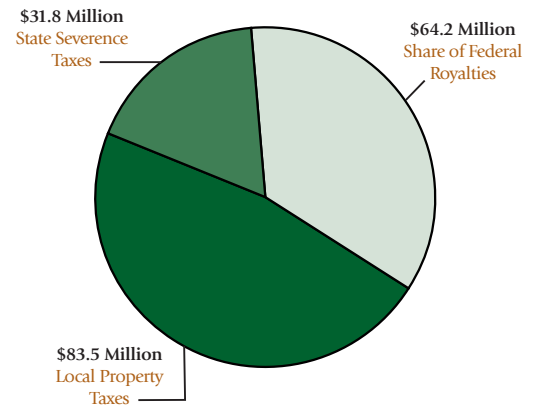
- The COGCC developed and implemented a new information system, "COGIS", that made all COGCC well file data for approximately 60,000 wells available at no charge via the Internet. Over 100,000 visits to the oil and gas web site, www.oil-gas.state.co.us, are projected for 2001.
- The Colorado Geological Survey has won several prestigious awards in the past year, including the Burwell Award, the Excellence in Technology Award, and the Best Paper Award.
- The COGCC developed and implemented GIS oil and gas well information system that makes most well information available at no charge at www.oil-gas.state.co.us.

development, policy, regulation and planning. The division is comprised of three units: the Office of Mined Land Reclamation; the Office of Active and Inactive Mines; and the Colorado Geological Survey. The Division's activities are overseen by the seven-member Mined Land Reclamation Board and the four-member Coal Mine Board of Mine Examiners.

The Office of Mined Land Reclamation issues reclamation permits in both the Minerals Program and the Coal Program. Together, these programs regulate mining and reclamation activities at coal, metal, aggregate and other mines. Their primary objective is to review mining and reclamation permit applications, and to inspect mining operations to make sure that reclamation plans are being followed.

The Office of Active and Inactive Mines reclaims and safeguards abandoned mine sites that are dangerous and create environmental hazards. The program also provides safety training for mine operators and employees.

2000 State & Local Revenues (Gas, Oil & Coal Production) \$179.5 Million



Colorado Geological Survey

The Colorado Geological Survey (CGS) provides a variety of services to federal, state, and local government agencies, Colorado's mineral and energy industries, and private citizens. Services include geologic mapping, including digitized data for identifying geological hazards and mineral resources. The CGS also provides technical assistance, research and economic development information on Colorado's mineral and energy industries. The agency publishes and distributes geology-related research in the form of maps and technical reports, as well as non-technical publications such as *Colorado's Dinosaurs*.

Important Legislation

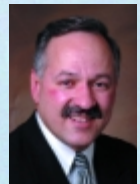
Colorado's oil and gas industry continues to grow, while operating under strict environmental regulations. The most significant oil and gas reform in a generation — Representative Gregg Rippey's HB 01-1088 — now requires notification to private property buyers if mineral rights have been severed from the surface rights on the property. With the support of legislators like Representative Shawn Mitchell, this bill will greatly reduce conflicts between mineral owners and new people coming to Colorado. Also of note, Senator Rob Hernandez and Representative Jim Snook sponsored legislation to use surplus severance tax dollars to help low income Coloradans with their energy bills last Winter.



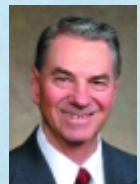
Rep. Rippey



Rep. Mitchell



Sen. Hernandez



Rep. Snook

Land Resources

Colorado's public lands provide important benefits that everyone enjoys, and we all have a responsibility to be good stewards of these lands. This means ensuring that public lands are maintained and that the public enjoys access to them. The Department of Natural Resources has several divisions devoted to the stewardship of state-owned lands, including the State Board of Land Commissioners, the Division of Forestry, the Division of Wildlife (DOW),

the Division of Parks and Outdoor Recreation, and the Division of Minerals and Geology (DMG).



The Greenland Ranch in Douglas County – the largest preservation project in Colorado history – is one example of the Owens Administration's priority effort to protect open space through conservation easements.

agencies to conserve open space without paying for costly fee title acquisition and still permitting landowners to maintain the property – especially farms and ranches.

For example, the Colorado Wildlife Commission and Colorado State Parks helped preserve 21,000 acres of prime Front Range open space by allocating Lottery funds to acquire the Greenland Ranch between Castle Rock and Colorado Springs.

The complicated land deal allows the state to protect habitat for deer, elk and other wildlife while preserving a dozen miles of scenic vistas of the Front Range. Partners in the effort – the largest preservation in Colorado history – included the Wildlife Division, Colorado State Parks, the Great Outdoors Colorado Trust Fund, Douglas County, The Conservation Fund, and the private buyer and seller.

Division of Wildlife conservation easements and leases protect a total of 241,000 acres. The DOW also owns 230 properties, totaling 348,000 acres. State trust lands managed by the State Land Board and leased by the DOW protect habitat and provide public uses on another 470,000 acres. In 2000, the DOW protected, through the purchase of fee title or easements and leases, an additional 9,262 acres of habitat. State Parks also manages over 214,000 acres of land and water in Colorado, protecting natural beauty, important habitat, and outdoor recreational uses.

Last year's acquisitions included the 6,120-acre Circle Ranch in Larimer County. The acquisition connected the upper and lower portion of Cherokee Park State Wildlife Area, and enabled protection of a total of 15,000 contiguous acres of prime wildlife habitat. The property provides winter range for big game, habitat for the threatened Preble's meadow jumping mouse, and hunting, fishing and wildlife watching opportunities.

Other significant acquisitions included an easement on Willow Creek Ranch in Douglas County (696 acres), a lease on Hollenbeck Ranch in Lake County (996 acres) and 160 acres of important habitat in Grand County.



Chris Castilian joined the Department of Natural Resources as the State Land Board Director in December of 2001. Prior to his appointment as Director, Chris served as the Legislative Director for Colorado Counties Inc. for years, where he focused on natural resources and public land use. Chris has worked with local government officials from all across the state and is familiar with both public land use and natural resource issues. Chris is a graduate of Denver University Law School, where he studied environmental law and natural resources. A fourth generation Coloradan, Chris and his wife Patty Shaw live in Denver.



Land Resources



Jim Hubbard has served as State Forester of Colorado since 1984. Jim has served in several leadership positions at both the state and national level, including a term as chair of Governor Bill Owens' Wildland Urban Interface Working Group. Jim is a past President of the National Association of State Foresters (NASF) and continues to represent NASF as Legislative Committee Chair and as the states' liaison to the National Fire Plan. A native of Kansas, Jim holds a Bachelor of Science Degree in Forest Management from Colorado State University. He and his wife Cindy have three daughters.

The Forestry Advisory Board was created as a part of the Division of Forestry in the Department. It is responsible for producing an annual report on the health of Colorado's forests. Members include:

- **Nancy Fishing**, Chair, Montrose
- **Tom Stone**, Eagle
- **Dr. Al Dyer**, Fort Collins
- **Tom Borden**, Fort Collins
- **Doug Robotham**, Denver
- **Greg Walcher**, DNR Executive Director
- **Don Ament**, Commissioner of Agriculture



Land Management

As a result of House Bill 00-1460, the Department of Natural Resources gained an invaluable new asset – the State Forestry Division. The newly created Division monitors the health of all forests in the state, including national and private forests. The Division focuses on forest health, rather than on the revenue generated from forest activities.



Without proper management, forest disease and insects threaten to do irreparable damage to Colorado's forest lands. Above, forest disease ravaged this area along Highway 285 in Jefferson County.

By statute, the Division of Forestry is headed by the State Forester, with advice and assistance from the newly created Forestry Advisory Board, and staffed by the Colorado State Forest Service (CSFS), a program of Colorado State University. The seven-member Forestry Advisory Board held its initial meeting on November 19, 2001. Primary on the Board's agenda was a review and discussion of the first annual Report on the Condition of Colorado's Forests. This report, required by the Division's enabling act, provides an overview of Colorado's forested landscape, highlights existing areas and issues of concern, and launches a public dialogue regarding the future of the state's forest resources.

The Board also received a report on the recommendations of the Governor's Wildland-Urban Interface Working Group, which was chartered to advise the Governor on ways that local, state and federal agencies can work together to improve wildfire response and ensure the best possible protection for Colorado's citizens. The Working Group presented its final report to the Governor in May 2001.

Outlined in the report were several recommendations, including: building the capacity of local government to prepare for, respond to, and mitigate the risks of wildfire; working collaboratively with government and private landowners to implement risk reduction measures on a landscape scale; and improving public awareness regarding the role of fire in Colorado's ecosystems.

The protection of people, property and resources in the Wildland-Urban Interface (WUI) is a primary objective of the CSFS, and will be further emphasized in the CSFS's new relationship with the DNR. A century of aggressive fire suppression, combined with changing land management practices and recent weather cycles, has left many of Colorado's forests unnaturally dense and highly susceptible to catastrophic fire. These at-risk forest landscapes are also the preferred scenic backdrop for many city dwellers moving from the state's urban and suburban neighborhoods into the mountains. The CSFS estimates that nearly one million people currently live within the Red Zone, a collection of WUI areas across the state which are characterized by forest land at high risk for large-scale wildfire.

Foresters at CSFS regularly provide technical and financial assistance to private landowners who want to reduce hazardous "fuels" around their homes and property. The agency tries to increase the impact of these efforts by promoting projects that bring together federal and non-federal landowners in fuel reduction projects that result in improved forest condition and greater protection on a landscape-scale.

The Upper South Platte Project, for example, was initiated in response to the 1996 Buffalo Creek Fire, which consumed more than 12,000 acres of federal and private forest in less than six hours. Severe flooding in the aftermath of the fire resulted in the deposition of

Land Resources

hundreds of thousands of tons of sediment into Strontia Springs Reservoir, a major distribution facility for Denver's water supply. Partners in the Upper South Platte effort include the Denver Water Board, the US Forest Service, private landowners and the CSFS. Together, these partners are working to implement a management plan, which will improve the ability of the remaining forest lands to resist catastrophic fire and prevent future damage to Denver's valuable watershed.

Colorado's involvement in the National Fire Plan has brought increased opportunities for the state to work with local fire departments, private landowners, communities and other agencies to improve the state's awareness of and response to wildfire. Through increased funds received in 2001, the CSFS awarded grants totaling \$650,000 to 200 volunteer fire departments for training and the purchase of safety gear and other equipment.

The CSFS also conducted 40 "FireWise" workshops to inform homeowners, fire departments, developers, insurance representatives and others on useful techniques for reducing the risk of wildfire to homes and property. Over 100 individual landowners received CSFS help with the creation of defensible space around their homes and property, while 30 additional grants were awarded by CSFS for fuel reduction projects on larger ownerships. Activities ranged from 60-acre prescribed burns to 270-acre mechanical treatment projects.

Land Use

The State Board of Land Commissioners manages roughly three million surface-acres of state trust lands, given to the state by the federal government in 1876 for support of public schools. Today the lands are leased for ranching, farming, mineral and oil and gas production and other uses. Proceeds from these lands are used to support eight trusts, the largest of which benefits public schools. The agency is overseen by a five-person citizen board appointed by the Governor, and has a staff of 33 people and a budget of around \$2.5 million a year.

In Colorado there are 1,584 aggregate operations regulated by the DMG consisting mostly of gravel pits – natural aggregate consists of rock fragments that may be used in their natural state or used after mechanical processing such as crushing, washing, and sizing. Although potential aggregate is widely distributed throughout Colorado, it is not available everywhere.

Part of Colorado's challenge in the coming decade will be to balance growth with responsible use of aggregate resources. The housing and construction boom in Colorado, along with the restoration and rehabilitation of Colorado's highway system, will require



Coal mine reclamation efforts in Moffat and Routt Counties have created habitat for sharp-tailed grouse to re-establish leks and nesting grounds.



Engineers from all over the world have come to Colorado to witness cutting-edge on-site reclamation efforts.

The Colorado Mined Land Reclamation Board (CMLRB) is a multi-interest citizen board which establishes the regulations, standards and policies that guide the Division of Minerals and Geology. The Board was created in 1976 by the Colorado General Assembly. Members are appointed by the Governor and confirmed by the Senate, serving terms of four years. The composition of the Board is established by the Colorado Mined Land Reclamation Act.

- **Greg Walcher**, Executive Director of the Department of Natural Resources
- **Chuck McCulloh**, Colorado Springs
- **Harry Javernick**, Denver
- **Joe Janosec**, Craig
- **Catherine Kraeiger-Rovey**, Denver
- **Ira J. Paulin**, Lamar
- **Bill Alt**, Pueblo, Soil Conservation Board

The State Board of Land Commissioners was created in 1876 to manage the lands given to Colorado by the federal government. These lands are leased to raise revenue for trust beneficiaries. By far the largest trust is the School Trust, which is managed for the benefit of the state's public school children. Board members are appointed by the Governor and provide expertise in public education, local government, natural resource conservation and production agriculture. They are:

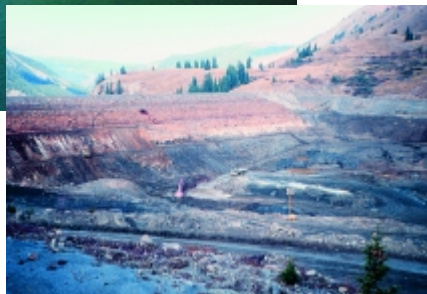
- **Diane Evans**, Castle Rock, Chair
- **Dennis Brinker**, Coalmont, Vice Chair
- **John Stulp**, Lamar
- **Pat Teegarden**, Denver
- **Shirley Watson**, Fort Collins

Land Resources

- *The Division of Wildlife and State Parks helped preserve the Greenland Ranch in Douglas County, the largest open space project in the history of Great Outdoors Colorado, ensuring permanent community separation along the I-25 Corridor.*
- *East and West Brush Creek in Eagle County are finally under contract, protecting the last of the state's "crown jewels" and ending years of efforts to conserve open space and wetlands by adding them to Sylvan Lake State Park.*
- *Through the national Forest Legacy Program, Colorado will protect private forestlands from being converted to non-forest uses through voluntary acquisitions of property and conservation easements.*
- *The School Trust, which represents 93 percent of the state trust lands and is to be managed for the long-term benefit of public schools, has generated nearly \$58 million for public education since 1999.*



Colorado leads the nation in reclamation efforts. The Oxide Pond at the Climax Mine (right) before reclamation efforts created Eagle Park Reservoir (above).



enormous amounts of aggregate. The Department's efforts, along with the cooperation of other governmental entities and local communities, will ensure that these resources are extracted responsibly.

Land Reclamation

Land reclamation is the practice of returning disturbed pieces of land to a beneficial use. The DMG provides input critical to the reclamation efforts, while enforcing regulations that provide protection from the impacts of mining to

both citizens and the environment alike. Reclaimed pits or quarries have been converted to residential sites, commercial properties, office parks, golf courses, parks, and wildlife areas, as well as simply returned to the natural conditions of the land. Reclaimed mine lands often serve as important grazing lands and habitat for native species like the Colombian Sharp-tailed Grouse.

Prior to 1997 there were 77 known sharp-tailed grouse leks — or breeding grounds — in Routt and Moffat counties. Conservation efforts by the local mining industry and private landowners involved in the federal Conservation Reserve Program have resulted in the development of more diverse plant communities and the relatively undisturbed habitat needed for breeding and nesting. As a result, surveys during 2000 identified 81 new leks — an enormous success for both the mining community and the environment.

Colorado has been leading the world in reclaiming mined lands. In May 2001, Colorado hosted several countries from around the world, which gathered to learn about environmental restoration and land reclamation. As technologies improve, Colorado's ability to safely and sensitively extract energy resources will continue to set the standard for the rest of the country.



Rep. Hoppe



Rep. Lawrence

Important Legislation

Colorado's land resources received a boost in 2000 when Representative Diane Hoppe and Senator Mark Hillman carried legislation creating the Division of Forestry. The mission includes an annual report on the condition of Colorado's forests, to be produced in consultation with the new Forestry Advisory Board. Senator Hillman also worked with Senators Dave Owen and Ron Teck, and Representative Lola Spradley on a bill creating tax credits for Coloradans that conserve land through permanent conservation easements. In addition, the leadership of Representative Joyce Lawrence has been critical in the management and upkeep of state trust lands.



Sen. Hillman

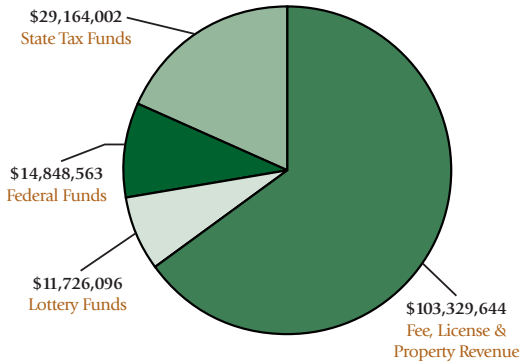


Sen. Teck

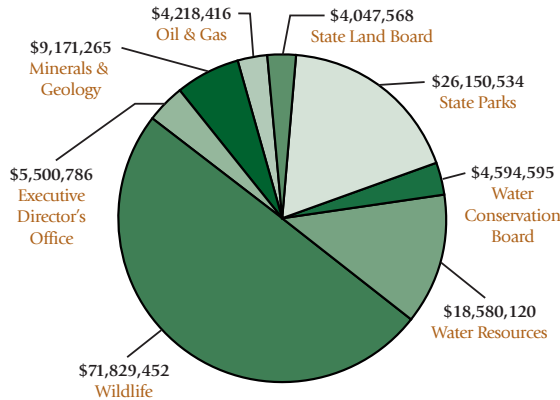
Budget & Organization

Budget

FY '01-'02 Appropriations*
(\$159,068,305)



FY '01-'02 Expenditures*
(\$144,092,736)

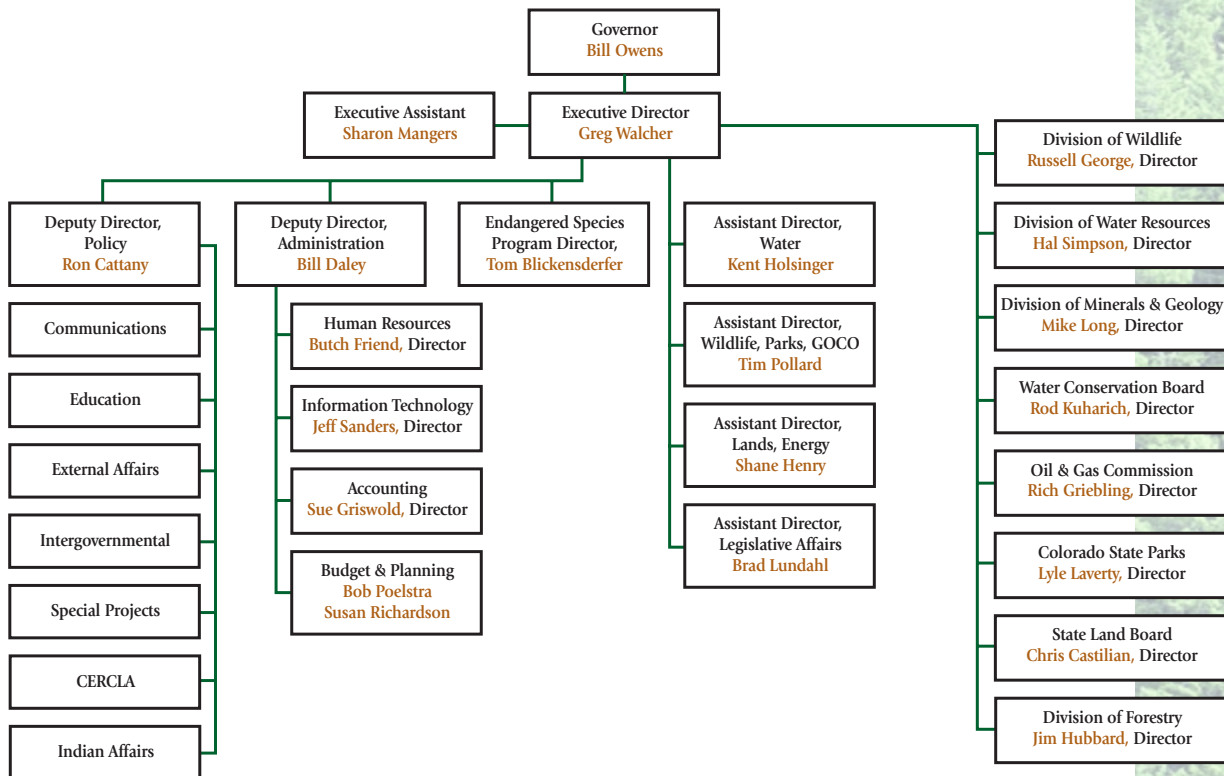


Source: SB 02-212 (Long Bill)

*The FY '01-'02 Appropriations figure represents spending authority given by the legislature; Expenditures represent actual dollars spent. The Department often stays under this spending cap.

Organization

Department of Natural Resources (Organization Chart)



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Rattlesnake Canyon, Mesa County



Colorado Department of Natural Resources

1313 Sherman Street, Room 718
Denver, Colorado 80203
(303) 866-3311

<http://dnr.state.co.us>

