

THE JOURNAL OF THE INTERSTATE

OIL & GAS COMPACT COMMISSION

groundwork

NOVEMBER 2009

INSIDE:
**COLORADO'S
TECHNICAL
RESPONSES TO
RULEMAKING**

*Protecting wildlife resources.
Balancing energy production.
Cooperative solutions.*



Collectively Representing the States.

Funded by the U.S. Department of Energy.



About the IOGCC

The Interstate Oil and Gas Compact Commission is a multi-state government agency that promotes the conservation and efficient recovery of our nation's oil and natural gas resources while protecting health, safety and the environment. The IOGCC consists of the governors of 38 states (30 members and eight associate states) that produce most of the oil and natural gas in the United States.

Chartered by Congress in 1935, the organization is the oldest and largest interstate compact in the nation. The IOGCC assists states in balancing interests through sound regulatory practices. These interests include: maximizing domestic oil and natural gas production, minimizing the waste of irreplaceable natural resources, and protecting human and environmental health. The IOGCC provides an effective forum for government, industry, environmentalists and others to share information and viewpoints, to allow members to take a proactive approach to emerging technologies and environmental issues. For more information visit www.iogcc.org or call **405-525-3556**.

Sneak Preview for Anchorage, Alaska meeting, 5/11/09

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A flexible, robust application that state agencies can adapt and modify according to their needs.



INTRODUCTION

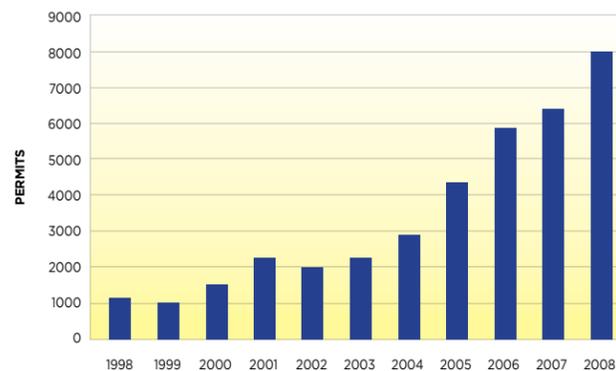
“Neither a **wise man** nor a brave man lies down on the tracks of history to wait for the train of the future to run over him.”



Dwight D. Eisenhower
34th President of the United States

Change happens. It can be met head-on and, if not controlled, at least managed. Or, change can be denied until it becomes the director of its own course. Over the past decade, Colorado lawmakers were confronted with rapid development of that state's oil and gas resources, which they hoped to encourage, and increasing concerns about their continuing ability to protect the environment. Rules and resources that provided ample oversight of the oil and gas industry when the state permitted about 1,000 wells per year, as it did in the late 1990s, were becoming inadequate as the number of drilling permits increased nearly tenfold by 2008. Colorado lawmakers decided to manage burgeoning energy development to keep it on a course that takes advantage of the economic benefits of oil and gas production while continuing to protect the public and the environment.

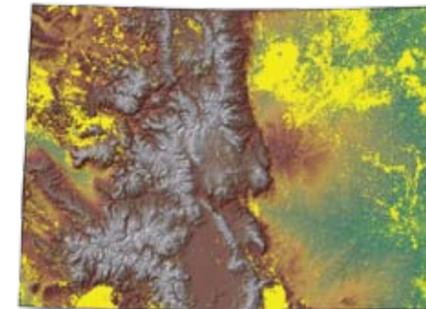
COLORADO DRILLING PERMITS



In 2008, the Colorado Oil and Gas Conservation Commission (COGCC) issued about 10 times as many permits as in 1998.

The 2007 Colorado General Assembly passed HB1298 and HB1341 to acknowledge the changing landscape and meet it head-on. The legislature declared that it is in the public interest for the Colorado Oil and Gas Conservation Commission (COGCC) to “plan and manage oil and gas operations in a manner that balances development with wildlife conservation in recognition of the state's obligation to protect wildlife resources and the hunting, fishing, and recreation traditions they support, which are an important part of Colorado's economy and culture.” The bills restructured the COGCC's Board of Commissioners to add commissioners with more diverse experience and directed the commission to update rules adding new provisions for minimizing adverse impacts to wildlife and ensuring proper reclamation of wildlife habitats. The legislation emphasizes the value of stakeholder involvement by requiring consultation with the Department of Wildlife (DOW) and surface owners prior to drilling in certain circumstances. It requires the COGCC to implement best management practices (BMPs) and other measures to conserve wildlife and encourages companies to develop comprehensive drilling plans to minimize surface disturbance and discourage habitat fragmentation.

Yellow represents the location of the 78,000+ wells that have been drilled for oil and gas in Colorado. About 38,000 are currently producing.



Revamping existing oil and gas rules in the midst of planning for a restructured board of commissioners would have been challenging under the best of circumstances, but the COGCC was already occupied with another major initiative to develop a computer application for online form submission. Adding unknown rules to the mix challenged staff to aim at what COGCC IT manager Marc Fine called “a moving target.”

COLORADO OIL AND GAS CONSERVATION COMMISSION



Mission Statement

The mission of the Colorado Oil and Gas Conservation Commission (COGCC) is to promote the responsible development of Colorado's oil and gas natural resources.

Responsible development results in:

- The efficient exploration and production of oil and gas resources in a manner consistent with the protection of public health, safety and welfare
- The prevention of waste
- The protection of mineral owners' correlative rights
- The prevention and mitigation of adverse environmental impacts

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.

Goals

- Promote the exploration, development and conservation of Colorado's oil and gas natural resources
- Prevent and mitigate adverse impacts to public health, safety, welfare and the environment
- Demonstrate balanced leadership in the regulation and promotion of oil and gas development in Colorado at the local, state and federal levels

Approached in 2005 by the Ground Water Protection Council (GWPC), a national association dedicated to preserving and protecting groundwater, the COGCC took a leading role in developing an online forms submission application for the states in the RBDMS (risk-based data management system) development group.

The project began to take shape as the basic design of the application was developed by working with the states to understand the requirements. The project team determined that the deliverable needed to be flexible enough that it could be installed in any state that wanted to use the application and adaptable enough to meet the various regulatory requirements of each state. The team also identified the need for an application that would allow submission of multiple regulatory forms in a single file transmission.

As work on the RBDMS progressed, the project team continued to work on a “wish list” of features. Industry had asked for the ability to track applications for drilling permits as they work their way through the approval process. Colorado wanted a tool to route the electronic form around the office for review and comment. In some states, multiple agencies might require access to data as part of the permitting process. Additionally, developers were able to incorporate what they call a “dashboard” that provides a number of tools, including one that allows the public to track and comment on pending applications.

*To acknowledge the changing landscape, **HB1298** and **HB1341** declared that it is in the public interest for the COGCC to “plan and manage oil and gas operations in a manner that balances development with wildlife conservation in recognition of the state’s obligation to protect wildlife resources and the hunting, fishing, and recreation traditions they support, which are an important part of Colorado’s economy and culture.”*

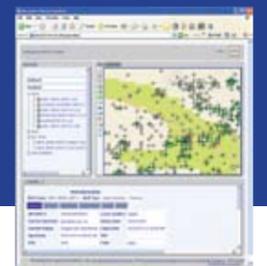


When lawmakers mandated the updating of Colorado oil and gas regulations during the summer of 2007, COGCC IT staff faced a challenge unlike any they had seen before. They were tasked with gathering requirements to design, develop, and implement a system for multiple agencies to review data when no one knew what the actual rules or data were going to be. That autumn, as the rule-making process began and the COGCC’s need for the e-permitting system was becoming more critical, funding from the GWPC was removed due to a change in its federal funding. Discussions between the two groups ensued and Colorado reached an agreement with the GWPC to draw on state funding along with using the entire existing code base that the GWPC had already funded. Colorado would work within the original design as much as possible and continue to provide the developed code to the GWPC’s RBDMS vault, and if and when the GWPC could reinstate funding, it would help Colorado complete its project.

As the rulemaking continued, the requirements continued to expand the application design, and the cost, beyond the original concept of the RBDMS Technical Committee. Just as the Colorado budget reached its limit,

the GWPC was able to re-establish funding to help the state complete its goals while continuing work toward a product that fit the specifications of the RBDMS design. With restored funding by GWPC as a stopgap, additional funds became available at the turn of the fiscal year in Colorado, helping with the added requirements and costs.

RBDMS is a PC- and Client/Server-Based, fully-relational and normalized information management system that was specifically designed for use by state oil & gas regulatory agencies responsible for oil & gas production and associated injection. The system is now used by twenty-two state oil & gas regulatory agencies in the United States and has since been expanded for use by private industry and other types of state and federal regulatory agencies. RBDMS is a modular system that includes data for oil, gas, UIC (Underground Injection Control program) and water quality, and online permitting, reporting, and data mining.



As rulemaking progressed, it became apparent that to focus on the rules, which were still a moving target, would not be the best use of the development team's time. Instead, the focus was trained on a set of tools the agency could use to implement the rules regardless of what they turned out to be.

The basic requirement that the e-Forms fit into the RBDMS project was paramount, with an added challenge for Colorado to mold the rest of that state's requirements to fit into the e-Forms project.

As the amended rules began to take shape, additional tools were needed. With little time to devote to complicated solutions, the simplest ideas were adapted. During the last year of the project, the team used a "modified agile approach" that allowed the development team and developers to implement ideas without waiting on a decision from the project manager, who ultimately made the final decision to accept or reject them.

The COGCC took final action in December 2008 on 100 new or amended rules after a lengthy process that included soliciting input from industry, environmental groups, property

owners, and local governments. The agency had conducted 24 days of hearings and encouraged public comment throughout the purposefully transparent process. The commissioners' final action was taken by unanimous vote.

Many local governments and interest groups actively participated in the rulemaking process. Some supported the proposed new rules and amendments as providing enhanced protection for public health, the environment, and wildlife. Others feared a negative impact on an industry that has brought much needed employment and an improved tax base to parts of the state.

Meanwhile, industry was concerned that the rules would further delay an already sluggish permitting process. As discussion ensued, and controversy built, the COGCC forged

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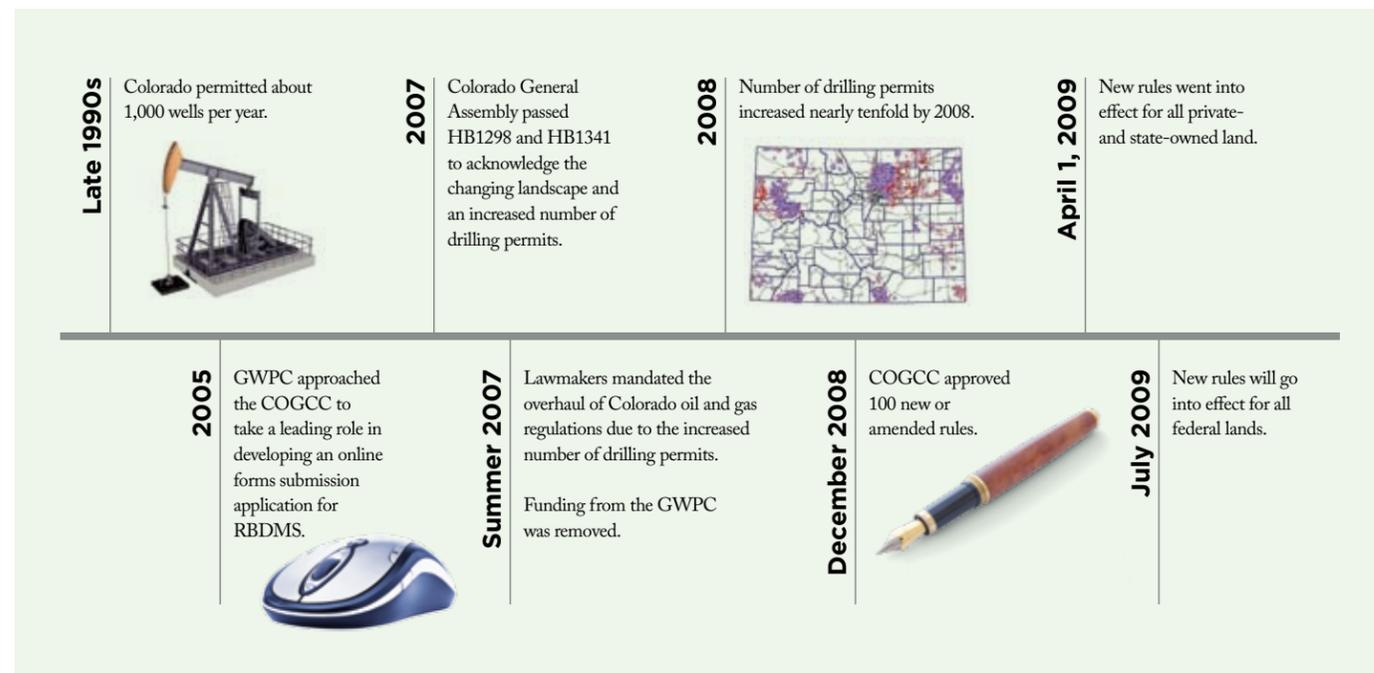
ahead and modified the proposed rules in response to expressed concerns. The final rules reflect substantial input from a broad range of parties, and provide a new consultation role for the state's Division of Wildlife and its Department of Public Health and Environment in the COGCC permitting process. These rules went into effect for all private- and state-owned land as of April 1, 2009, and are scheduled to become effective on federal lands in July of 2009. To assure that there will be appropriate protections without redundancy, COGCC is in negotiations with federal agencies such as the Bureau of Land Management to develop a memorandum of understanding (MOU) to support implementation of the rules on federal land. In a further attempt to smooth the process, COGCC is conducting training sessions around the state. To date more than 500 individuals primarily representing industry, but also including interested others, have participated. A significant focus of the training is designed to showcase the impressive

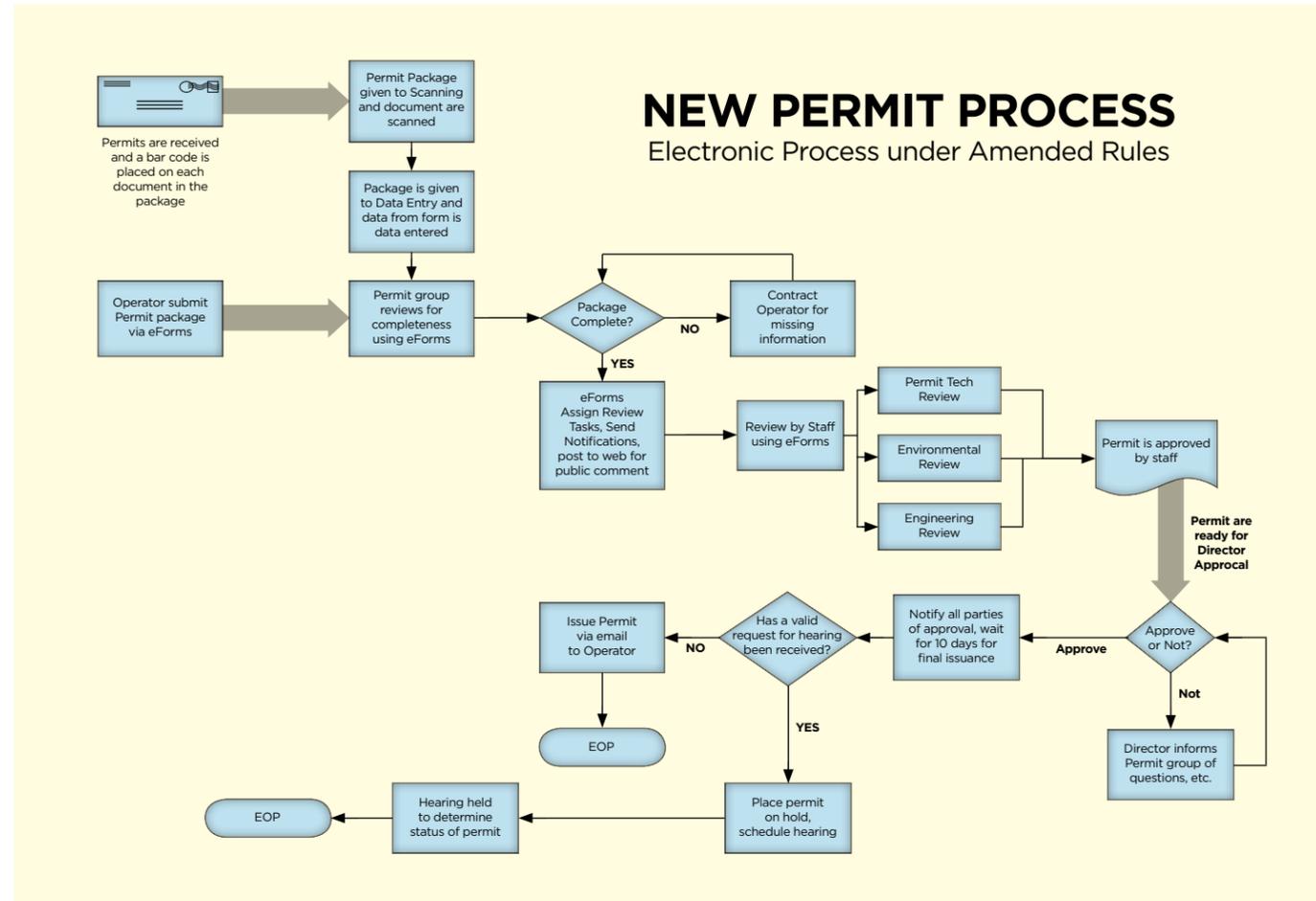
results of the way COGCC met its challenge to create new tools that harness technology to improve the agency's ability to fulfill its obligations to the citizens of Colorado.



During the 2008 IOGCC Annual Meeting in Santa Fe, NM, Chairman Gov. Brad Henry outlined that he will ramp up energy education efforts to important public constituencies in the name of educating those who have little knowledge of the importance of domestic energy resources.

Pictured here (from left to right): Larry Bengal, Arkansas; Victor Carrillo, Texas; Gov. Brad Henry, Oklahoma; Lynn Helms, North Dakota; Fred Steece, South Dakota; Don Bradshaw, Montana.





Key additions to Colorado's oil and gas rules

- An expanded COGCC Board of Commissioners: previously the commission was made up of seven members, five with oil and gas industry experience (two of the five were required to have a petroleum geology/engineering degree) and two non-industry members with environmental, agricultural, or reclamation experience. The new nine-member board is comprised of three members with industry experience (two of three with petroleum geology/engineering degree); two agency executive directors - one from the Department of Natural Resources, one from the Colorado Department of Public Health and Environment (CDPHE); one local government official; one royalty owner engaged in agriculture; one member with soil conservation/reclamation experience; and one member with environmental/wildlife experience.
- Operators are required to maintain adequate records of their operations to help emergency officials respond to spills, releases, and human exposure to toxic chemicals. The rules include provisions that allow companies to safeguard proprietary formulas or trade secrets while ensuring that medical professionals have access to information necessary to ensure public safety.
- Rules concerning Exploration and Production (E&P) wastes have been updated to include expanded reporting requirements, new specifications for pit liners, and more protective soil and ground water standards.
- Incentives have been added for operators to engage in landscape-level planning to assess and mitigate cumulative impacts over larger areas over longer periods of time.
- Specific rules apply only in areas where particular concerns must be addressed. The state has four distinct geologic basins and these rules give the COGCC the flexibility to focus on the site-specific demands of each area.

HB-1341

Expands and alters makeup of COGCC board of commissioners

Before

- ◆ 7 Members
- ◆ 5 with experience in oil and gas (2 of the 5 required to have a petroleum geology/engineering degree)
- ◆ 2 non-industry members with environmental, agricultural, or reclamation experience

After

- ◆ 9 Members
- ◆ 3 with experience in oil and gas (2 of the 3 required to have a petroleum geology/engineering degree)
- ◆ 2 Agency Executive Directors; one from DNR, one from CHPHE
- ◆ 1 local government official
- ◆ 1 royalty owner engaged in ag production
- ◆ 1 member with soil conservation/reclamation experience
- ◆ 1 member with environmental/wildlife protection experience



The Colorado Oil and Gas Commission's next steps include continued public outreach and education, by which it hopes to improve response to the rules and to identify further opportunities for enhancement of the system. Meanwhile, the e-Permitting module, already tested under fire and proven up to the task, will soon be added to the 'share-ware' available to states through the RBDMS project.

Colorado's proactive decision to manage change, from an unprecedented surge in oil and gas drilling to adapting advances in technology to meet the information demands of the new millennium, has culminated in a revitalized COGCC that is better equipped to balance energy development with environmental protection while preserving wildlife resources and the hunting, fishing, and recreation traditions they support, which are an important part of Colorado's economy and culture.

Highlights of the RBDMS system, which was led by and modified for the COGCC



- A browser-based form designer that allows agencies to design and develop a web page form that industry can fill in to submit a single form.
- An XML schema that defined the first regulatory forms the agencies would allow via the e-Forms project to be submitted in a multiple file form via the Internet.
- A business rules engine and editor that allows the applications to be adaptable and dynamic because users can modify the rules frequently without the need for IT intervention.
- A "dashboard" tool that allows tracking progress of forms. This module ends up as the main menu for all users.
- A flexible, robust application that state agencies can adapt and modify according to their needs.



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