

# ENERGY & CARBON MANAGEMENT COMMISSION'S ORGANIZATION and WORK UNITS

The Colorado Energy & Carbon Management Commission (ECMC) is organized into several work units in order to achieve its mission to regulate oil and gas in a manner that is protective of public health, safety, welfare, wildlife and the environment. The ECMC work units include:

<u>The Community Relations Unit</u> allows the ECMC to inform and engage with Local, State and Federal Governments, the general public, the oil and gas industry, and the media. This unit works to help diverse stakeholders gain a better understanding of oil and gas processes and ECMC's Rules through public information, education and engagement efforts, a local governmental designee program, and ECMC's complaints process.

<u>The Compliance Unit</u> includes inspectors and enforcement officers, who work closely together to gain operator compliance with ECMC Rules. Gaining compliance can come in the form of outreach training, voluntary compliance after the issuance of a corrective action or warning letter, or more formal actions related to a Notice of Alleged Violation (NOAV).

The Cumulative Impacts and Regulatory Affairs Unit leads the agency's efforts regarding Cumulative Impacts and Environmental Justice, is responsible for the Director's review and recommended approval of matters coming before the ECMC, is the agency's authority on interpretation of the Act and Commission rules, orders and policies, has primary responsibility for Commission rulemaking processes, and works closely with the Attorney General's office, which serves as counsel to the Commission, on legal and litigation matters and staff applications for hearing before the Commission.

The Engineering Unit includes Flowline and Facility Integrity, Wellbore Integrity and Class II Underground Injection Control ("UIC") wells. Flowline Integrity ensures that a flowline is compatible with the fluids being transported, allowing it to withstand anticipated operating conditions, and prevent failure. Wellbore Integrity refers to the design and construction parameters for an oil and gas well that prevent oil, gas, or water from migrating between different geologic formations penetrated by the wellbore. ECMC permits and regulates Class II UIC wells used for enhanced oil recovery or to dispose of oil and gas exploration and production waste.

<u>The Environmental Unit</u> consists of reclamation specialists and environmental protection specialists throughout the state to provide oversight during spill and release responses, monitor remediation projects, respond to complaints, and ensure that oil and gas sites are restored to their pre-disturbance conditions following oil and gas exploration and production activities.

<u>The Finance Unit</u> is responsible for ECMC's accounting, procurement, budgeting, and financial assurance functions. This Unit consists of two primary sections, the Finance Section and the Financial Assurance section, both of which are overseen by the Finance Manager.

The Hearings Unit is responsible for all matters related to Commission hearings. The Commission holds weekly hearings at which it takes up applications for oil and gas development, adjudicatory matters, and conducts rulemakings as needed. The Hearings Unit reviews and processes all applications for Commission orders, contested matters, rulemaking hearings, and enforcement matters and organizes public comment opportunities.

The Information and Applied Technologies Unit is responsible for maintaining the ECMC COGIS information system and the Geographic Information System (GIS) mapping system. This work allows for transparency, clarity, and responsiveness of information processes with the public and all stakeholders. This unit also is responsible for ECMC's website, creation of website applications, and production data reporting.

The Personnel and Strategic Planning Unit is responsible for managing the strategic development of the organization, including development of strategic plans and projects, identifying the need for additional positions, and developing leadership, organizational resilience, and succession planning. This unit is responsible for the administration of personnel, including recruitment, salary administration, performance planning, employee development, performance improvement, corrective action, and discipline when specifically authorized by the Appointing Authority. It also provides general administrative assistance to the Director, Deputy Directors, Commissioners, and Commission visitors.

The Planning & Permitting Unit includes the Location Assessment and the Permit/Completion Groups and is responsible for both the surface and subsurface permits, which an operator must obtain from ECMC prior to drilling a well. The Location Assessment Group primarily addresses the surface-related issues that are part of Oil & Gas Development Plans (OGDP) or Comprehensive Area Plans (CAP). The Permit/Completion Group addresses any Application for Permit-to-Drill (APD) or the Form 2, which is required for each proposed well and primarily addresses "down-hole" or subsurface issues.

The Orphaned Well Program identifies, prioritizes, and addresses oil and gas wells, locations, and production facilities statewide for which there are no known responsible parties or for which financial assurance instruments have been claimed. If not addressed, these oil and gas locations may impair a surface owner's farming or ranching activity or other use of the property, harm wildlife, pose risks to the environment or present a safety hazard to the public.

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# **COMMUNITY RELATIONS UNIT**

The Community Relations Unit allows the ECMC to inform and engage with Local, State and Federal Governments, the general public, the oil and gas industry, and the media. This unit works to help diverse stakeholders gain a better understanding of oil and gas processes and ECMC's Rules through public information, education and engagement efforts, a local governmental designee program, and ECMC's complaints process.

Currently, the Unit has a supervisor and a community relations liaison who focus on ECMC's public information outreach.

## **Local Government Program**

Support the Local Government Designee (LGD) program to ensure it is easy to use, embraced by local governments, adds transparency to the ECMC's regulatory processes, provides timely responses to local government concerns about oil and gas activity, and seeks opportunities for outreach to local government officials, as well as their constituents, about the state's regulatory process and what to expect when oil and gas activity occurs in their area.

ECMC's Local Government Designee (LGD) Program offers collaboration between local governments and ECMC in matters concerning oil and gas development. The passage of SB19-181 and the associated Mission Change Rulemaking established new regulatory relationships between ECMC and local governments. One of the primary changes associated with SB19-181 is that it enables local governments to have increased oversight of land use related oil and gas activities in their communities. This includes ECMC involvement early on in local permitting and siting processes and recognition that operators must comply with the most protective regulations.

Participation in the LGD Program allows a local government the opportunity to designate a specific individual (their LGD) as their "point person" regarding oil and gas matters. The LGD program is open to any county, home rule or statutory city, town, territorial charter city or city and county, or any special district established pursuant to the Special District Act; however, individual citizens are not eligible to participate.

LGD's are the primary contact point between ECMC and local governments. This program is unique to Colorado; first instituted in 1992 and the LGL program added in 2012. There are approximately 160 local governmental entities currently participating in the program.

## Complaint Process

Intake public complaints and notify the appropriate work unit to respond. Some complaints may also be transferred to various other governmental agencies that have appropriate jurisdiction. Upon the completion of the complaint investigation this group will close the complaint and notify the complainant of the outcome.

## **Public Information**

Provide public information in open, transparent platforms with a goal to build an understanding of the ECMC and its roles and duties regarding. Communicate regularly ECMC's news, updates, rulemakings and other events to the public, media and stakeholders. Create public engagement processes and events with stakeholders statewide.

Respond to the public's questions, Colorado Open Record Requests (CORA) and be a resource for them in understanding ECMC's regulations and website.

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# COMPLIANCE UNIT

The Compliance Unit includes inspectors and enforcement officers, who work closely together to gain operator compliance with ECMC Rules. Gaining compliance can come in the form of outreach training, voluntary compliance after the issuance of a corrective action or warning letter, or more formal actions related to a Notice of Alleged Violation (NOAV).

#### INSPECTION GROUP

The Compliance Inspection Group inspects oil and gas wells and related facilities (e.g., storage tanks, separators) to ensure compliance with Commission rules, policies, orders and permits. The group also has primary responsibility for responding to complaints. The Inspection Group has a manager, a quality assurance professional, supervisors and field inspectors.

The Inspection Group is organized into four geographic regions and inspectors live within their assigned work region. Assigning inspectors to specific regions enhances inspectors' working knowledge of regional distinctions in geology, environment and wildlife, operational practices, operators, and other stakeholders.

## **Inspection Process**

ECMC inspects between 19,000 and 23,500 oil and gas facilities each year, including wells, tank batteries, and multi-operational locations. On average, active wells are inspected once every 1.7 years.

To assist in planning inspections and ensuring efficiency the ECMC utilizes a number of IT processes such as database reports, data queries, and a Geographic Information System. The IT tools use data from permitting, reporting, and field inspections to generate a list of inspections with the highest priority for inspection. These criteria along with other data form a Risk Based Inspection scoring model. Each well is assigned a score that may lower or raise on a daily basis depending on the criteria on that day. For example, a well that has never been inspected has a higher priority than a recently inspected well with a satisfactory compliance evaluation.

Field inspectors physically visit wells and production facilities and complete a field inspection report for each visit. The field inspection report is sent to the operator electronically, almost immediately after the inspection. Field inspectors may require an operator to take actions to correct minor instances of non-compliance and may refer more serious alleged violations to the Enforcement Group.

Inspection goals are developed for each member of the field inspection group. The goal for each inspector varies according to well density and geographic features of the region to which they are assigned.

Field inspectors have access to these tools through laptop computers that replicate ECMC's database through synchronization tools. The field inspection report, mentioned above, is completed in the field and can be sent to the operator electronically.

## **Training**

Field inspectors participate in rigorous and ongoing training to ensure they understand and remain up to date on rules, policies and procedures. New inspectors receive two weeks of focused training to introduce them to the ECMC database, processes and procedures. They work under close supervision for at least their first year in the field.

All inspectors are trained in stormwater management, well control, production equipment operation, sound survey equipment operation, dealing with difficult customers, and onsite safety. Inspectors also train regularly on technical and operational matters.

# **UIC Inspection Program**

The Underground Injection Control ("UIC") program is part of the federal Safe Drinking Water Act. The Environmental Protection Agency has delegated authority for implementing the Class II UIC program (exploration and production waste injection and enhanced oil recovery wells) to the Commission.

The Inspection Unit conducts routine compliance inspections on over 900 UIC wells annually, and witnesses Mechanical Integrity Tests ("MITs") of the UIC wells. If a UIC well fails an MIT, the inspector immediately orders the well to be shut-in and initiates an enforcement action. The inspector will conduct follow-up inspections and data review to ensure well integrity is restored or the well is plugged.

## Intergovernmental Agency Inspector Program

This group can work with local governments to implement an inspection program under an Intergovernmental Agreement. The manager and supervisor serve as technical advisors for the hiring process.

A local government inspector receives initial training from ECMC and is issued equipment consistent with Commission field staff. The inspector is then assigned to a Commission field supervisor for assistance with technical aspects of inspections, if needed. Specific work tasks are assigned by the local government personnel responsible for monitoring the program.

Additionally, this unit will work with local governments' emergency response personnel as the expert for emergency response operations related to oil and gas drilling, completions, hydraulic fracturing and production operations. This unit will also provide opportunities for expanded training between first responders and the O & G industry.

## **Complaint Response**

Field inspectors have primary responsibility for responding to complaints. The Commission's policy is to respond to all complaints within 48 hours; inspectors frequently respond in less than 12 hours.

Many complaints involve ephemeral issues (e.g., noise, odors) that must be witnessed and documented to provide appropriate mitigation. Multiple site visits frequently are required to observe

the conditions giving rise to the complaints. Complaint resolution may involve multiple state and local governmental agencies.

## **ENFORCEMENT GROUP**

The Compliance Unit includes the Enforcement Group which has a supervisor, enforcement officers and a Notice of Alleged Violation specialist. The Enforcement Program is designed to deter violations and encourage compliance. The basic enforcement procedures and processes are described below:

- Notices of Alleged Violation ("NOAVs") are issued when the Director has reasonable cause to believe a violation of the Oil and Gas Conservation Act ("Act"), or Commission rules, permits or orders has occurred. Reasonable cause can include an inspector's observations in the field, the absence of a required report, or analytical samples.
- In most cases, after receiving an NOAV and Notice of Hearing, operators have the option to engage in settlement negotiations with ECMC Staff. If an agreement is reached, it is memorialized in an Administrative Order by Consent ("AOC") and submitted to a Hearing Officer for approval.
- If a settlement is not achievable, the matter will proceed to an Order Finding Violation ("OFV") hearing, which is a full evidentiary proceeding before a Hearing Officer.

Annual Enforcement Reports are produced in December each year and are available on the ECMC website.

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# **ENGINEERING UNIT**

The Engineering Unit includes Flowline and Facility Integrity, Wellbore Integrity and Class II Underground Injection Control ("UIC") wells. Flowline Integrity ensures that a flowline is compatible with the fluids being transported, allowing it to withstand anticipated operating conditions, and prevent failure. Wellbore Integrity refers to the design and construction parameters for an oil and gas well that prevent oil, gas, or water from migrating between different geologic formations penetrated by the wellbore. ECMC permits and regulates Class II UIC wells used for enhanced oil recovery or to dispose of oil and gas exploration and production waste.

The Engineering Unit comprises a manager, supervisors, area engineers, engineering technicians, flowline inspectors and a UIC lead.

## FLOWLINE AND FACILITY INTEGRITY

Flowline Integrity refers to the design, construction, operation, maintenance, and repair parameters necessary to make a flowline compatible with the fluids being transported, allow it to withstand anticipated operating conditions, and prevent failure. In many cases, flowlines are considered the safest method of transporting water, oil and gas.

Facilities include production equipment such as tanks for storing produced fluids and pressure vessels used in oil and gas production which are typically connected by the flowlines.

# Other government organizations

The Integrity Group coordinates and meets with other government agencies involved with pipelines and facilities, including the Colorado Public Utilities Commission ("PUC"), Colorado Department of Public Health and Environment ("CDPHE"), the Federal Government's Department of Transportation Pipeline and Hazardous Materials Safety Administration ("PHMSA"), and the Underground Damage Prevention Safety Commission to discuss safe operations in Colorado and ensure all Colorado oil and gas operations are compliant with regulations.

# **WELLBORE INTEGRITY**

Wellbore integrity refers to the design and construction parameters and monitoring/testing requirements through the entire lifecycle of an oil and gas well that prevent oil, gas or water from

migrating between different geologic formations penetrated by the wellbore. Designing and constructing a well so that hydrocarbons cannot migrate through or along the wellbore into fresh water formations is one of the most fundamental ways of protecting the environment, especially drinking water aquifers, during oil and gas operations.

## **Wellbore Reviews**

Engineering staff conduct pre- and post-construction wellbore reviews on every single well permitted in Colorado. A pre-construction review of the casing and cement design is performed to verify that the wellbore will isolate any potential flowzones, including fresh water. After a well is completed, the engineering staff reviews documentation including well log data, service company reports, and operator daily field reports, to confirm that casings were placed and cemented in accordance with the approved permit and applicable ECMC rules and policies. ECMC requires a Cement Bond Log and contractor job summaries to verify cement coverage behind the production casing or intermediate casing.

During well permitting, existing wells offsetting the proposed well are also reviewed to assure that their construction is adequately isolating hydrocarbons and water. If an offset well's current configuration does not meet standards for offset development, the well must be remediated or properly plugged and abandoned prior to completion of the proposed well.

Bradenhead monitoring, as well as annual Bradenhead tests are performed during a well's productive life to monitor wellbore integrity.

Engineering staff also review a Form 6 (Notice of Intent to Abandon) prior to plugging and abandonment to verify zonal isolation and to identify all fresh water aquifers and hydrocarbon producing zones to assure proper isolation during plugging procedures.

# Class II Underground Injection Control Wells

ECMC permits and regulates Class II UIC wells. Class II wells are used specifically for enhanced oil recovery through injection of water, gas, or other substances, or as disposal wells injecting oil and gas exploration and production waste.

The UIC permit review requires a seismicity review using Colorado Geological Survey maps, the United States Geological Survey earthquake database and area-specific knowledge to assess seismic potential associated with proposed injection.

All UIC wells must pass a Mechanical Integrity Test ("MIT") after it has been set up in the final injection configuration. The MIT assures that injected fluids are contained by the injection tubing and packer. MITs are required at 5-year intervals for the life of the UIC well. The ECMC calculates a maximum injection volume, and is initially restricted to a one-quarter mile radius. This restriction is intended to constrain the total volume of injected fluids during the life of the injection well.

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# **ENVIRONMENTAL UNIT**

The Environmental Unit consists of reclamation specialists and environmental protection specialists throughout the state to provide oversight during spill and release responses, monitor remediation projects, respond to complaints, and ensure that oil and gas sites are restored to their pre-disturbance conditions following oil and gas exploration and production activities.

Regional Reclamation and Environmental Protection Specialist Responsibilities
Regional Reclamation and Environmental Protection Specialist (EPS) staff work out

Regional Reclamation and Environmental Protection Specialist (EPS) staff work out of home-offices in oil and gas producing areas to provide coverage for a wide range of issues during the operational life of a well. These staff members serve as subject matter experts during permit review as necessary to

support other work units. The reclamation specialists begin field inspections to assess construction stormwater management, topsoil protection, and disturbance minimization as soon as an oil and gas operator breaks ground on a new project. The environmental unit verifies compliance with ECMC's environmental rules throughout the life of the oil and gas development and operations through review of various submitted forms and information and field inspections conducted as necessary based on site-specific activity. EPS staff provide direct oversight of investigation and cleanup activities if produced fluids are spilled, impacting soil or water resources. Finally, the environmental unit ensures through inspection and document review that all oil and gas related facilities are safely removed from an oil and gas location and the location is restored and reclaimed as close as possible to its pre-disturbance condition or acceptable post-disturbance conditions if land use has changed.

# Exploration & Production Waste Management

The ECMC has statutory responsibility for the oversight of management of Exploration and Production Waste ("E&P waste"). E&P wastes are generated from primary field operations and uniquely associated with exploration, development, or production of oil or natural gas (as distinct from transportation or refining operations). Examples of E&P waste include flowback fluids, produced water, drilling fluids, oily waste, drill cuttings, and tank bottoms. Any material that came from the down hole is considered E&P waste. Spilled or released product (crude oil or condensate) at primary field exploration operations and production facilities prior to sale are also considered E&P waste. The ECMC requires operators to properly store, handle, transport, treat and recycle or dispose of E&P waste to prevent threatened or actual significant adverse environmental impacts to air, water, soil or biological resources. The ECMC has permitting, constructing, operating and closure criteria for facilities that store or treat E&P waste, such as pits and Centralized E&P Waste Management Facilities.

ECMC Regional EPS staff oversee the investigation and cleanup of all E&P waste spills to protect public health and the environment and are subject matter experts to other staff and the regulated community on matters related to E&P Waste. The ECMC has published numeric standards for contaminant concentrations in soil and groundwater that must be achieved before a site is closed. ECMC will not release the financial assurance of an operator until the cleanup goals are met. If a spill of E&P waste impacts surface waters of the state, the ECMC coordinates the spill response and cleanup with the Colorado Department of Public Health & Environment ("CDPHE"). However, as an implementing agency for the groundwater standards and classifications established by the Water Quality Control Commission at CDPHE, the ECMC has the primary responsibility for ensuring groundwater protection from spills of E&P waste, and for overseeing cleanups of E&P waste impacts to groundwater.

# Local Spill Reporting, Tracking & Remediation

The ECMC Environmental Unit ensures compliance with requirements for spill reporting, tracking, and remediation. Operators are required to report spills and releases of E&P waste above minimum thresholds to ECMC verbally within 24 hours, with a written follow-up report within 72 hours. The ECMC requires operators to fully investigate and clean up all environmental impacts resulting from a spill, regardless of the size, and whether or not the spill is reportable.

ECMC standard procedures for spill response ensure consistent and effective environmental remediation and include the following:

- Every spill is tracked from the first report of the incident until the final cleanup is approved;
- All reports related to the spill are publicly available through the ECMC website;
- All spills are cleaned up to applicable, published standards; and
- Operators are subject to an enforcement action if a spill results from or causes a violation of the Act, a Commission rule, order, or permit, or if the operator fails to report or remediate a spill.

Spills are reported to the ECMC through an electronic spill reporting system, which allows spills to be closely tracked and monitored. Operators are required to submit a Site Investigation and Remediation Workplan for spills that result in significant environmental impacts, including impacts to groundwater or surface water. Operators are also required to submit a workplan prior to decommissioning oil and

gas facilities, including pits, tanks, produced water vaults, separators, and other oil and gas production equipment.

The ECMC EPS staff have several roles in the spill or release response, site investigation, facility closure, and remediation processes including the following:

- The ECMC approves the workplan before site investigation or remediation begins.
- The ECMC does not impede emergency or initial response actions when an operator discovers a spill; the operator must commence clean up as soon as possible.
- The ECMC communicates closely with an operator during the remediation process, and operators provide written reports and data which staff review.
- The ECMC ensures operators comply with rules, statutes, orders, permits and approved workplans during these operations.
- The ECMC makes all data and communications regarding a spill publicly available through the ECMC website, including the Daily Activity Dashboard.

The operator must provide evidence, such as soil or water samples, demonstrating the site has been cleaned-up to published standards established by the ECMC in conjunction with CDPHE. The operator may request a "No Further Action" determination when those standards have been met. The remediation of a spill or release is not closed until ECMC staff determine all applicable standards and requirements have been met.

# **Groundwater Sampling**

The ECMC requires oil and gas operators to sample groundwater or, in some cases, water sources such as springs, near a new oil and gas location both before and after a well is drilled.

Colorado was the first state in the country to require water sampling both before and after drilling, and is now one of numerous states to require such sampling. All water quality data obtained through the required sampling programs must be provided to ECMC and is entered into the agency's environmental database where the sample results are publicly available for review or bulk download.

The purpose of pre-drilling sampling is to obtain baseline water quality data. Post-drilling samples allow comparison to baseline conditions and may aid in determining whether oil and gas operations have resulted in adverse impacts to water. Post-drilling sampling may also lead to early detection of water impacts should they occur. Data from the ECMC's environmental database has been utilized by numerous researchers and academics in their studies of oil and gas activity and potential environmental impacts.

Water sources that may be sampled as part of the ECMC baseline program include wells registered with the Colorado Division of Water Resources, including household, domestic, livestock, irrigation, municipal/public, and commercial wells; permitted or adjudicated springs; and monitoring wells installed specifically for sampling to meet the ECMC requirements. The owner of a water source must consent to the source being sampled and to the sample data being made available to the public.

The pre- and post-drilling samples are analyzed for a full array of water quality indicators, as well as total petroleum hydrocarbons ("TPH"), benzene, toluene, ethylbenzene, and xylenes (together "BTEX"), and dissolved gasses. The intent is to provide an understanding of the existing water quality in the area near new oil and gas activity and regionally across active oil producing basins. The Commission or Director may require an operator to conduct water sampling at any time in response to observed changes in water quality or where contamination has been alleged. In addition, the Commission will sample domestic water wells upon request if a wellowner is concerned about oil and gas operations, impacting their water well.

# Complaint Response and Special Projects

Regional EPS and reclamation specialists respond to complaints alleging impacts to private property, groundwater, and surface water from oil and gas operations. Investigations range from field inspections and interviews to complex groundwater investigations utilizing isotopic analyses in

challenging hydrogeologic settings, and each complaint investigation is conducted to determine if impacts from upstream oil and gas operations are present and if they are, how they can be remedied.

The ECMC administers certain funds in the Oil and Gas Conservation and Emergency Response Fund to conduct studies and special investigations locally, regionally, or on a basin-wide or state-wide scale. These studies probe questions related to changes to environmental baseline conditions around oil and gas development areas. Using these funds, EPS staff have conducted aquifer characterization studies, methane seep evaluations, coal-bed methane field geochemical analyses, and various E&P Waste characterization studies. The results of these studies have informed permitting decisions, policy, and rules governing oil and gas operations in Colorado.

## RECLAMATION

The ECMC Environmental Unit includes reclamation specialists that focus on interim and final site reclamation, topsoil protection, weed management, stormwater compliance, and educational outreach to the oil and gas community. The reclamation staff has extensive education and experience in restoration ecology and reclamation of disturbed lands.

Like other Environmental Protection Specialists, reclamation specialists are assigned a specific geographic region, varying in size based on the concentration of oil and gas facilities and activities. Field inspection priorities for the reclamation specialists include new construction disturbance, interim reclamation and stormwater management practices, and final reclamation inspections for financial assurance release. Once final reclamation is complete and financial assurance has been released, the site is no longer considered an oil and gas location and is no longer subject to oversight from the ECMC. Administrative priorities include review of variance applications, especially those submitted with a surface owner waiver as allowed by rule, and enforcement support for improving overall industry compliance.

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# **FINANCE UNIT**

The Finance Unit is responsible for ECMC's accounting, procurement, budgeting, and financial assurance functions. This Unit consists of two primary sections, the Finance Section and the Financial Assurance section, both of which are overseen by the Finance Manager.

## Finance Section

The Finance Section consists of accounting, procurement, and budget staff. The accounting team ensures the timely recording of ECMC's finances in CORE, the State's financial information system. Accounting staff record the division's expenditures, revenues, and grant transactions in accordance with Generally Accepted Accounting Principles, State Fiscal Rules, State Fiscal Procedures, and Department of Natural Resources (DNR) policies and procedures. They also provide monthly reports to ECMC unit managers to help manage individual unit budgets. The procurement staff ensure that ECMC's operational units' purchasing needs are fulfilled in accordance with State Procurement Code and DNR policies. Procurement specialists advise operational staff on the use of purchase orders, contracts, and bidding processes. In addition to overall unit supervision, the Finance Manager is responsible for the development of ECMC's annual budget. This includes revenue forecasting, legislative budget preparation, and coordination with other unit managers to develop and administer their operational budgets.

# **Financial Assurance Section**

The Financial Assurance Section is responsible for registration of new operators, registration of designated agents, approval of financial assurance plans and instruments, and audits of financial assurance. An operator must provide financial assurance or a "bond" that demonstrates they are capable of fulfilling every financial obligation imposed by the Act, to the Commission, in order to conduct oil and gas operations in Colorado. Financial assurance requirements and procedures are

set out in the Commission's 700-Series Rules and were recently updated in the 2022 Financial Assurances Rulemaking, required by SB19-181. The Commission claims a bond when an operator fails to perform statutory and regulatory obligations and releases a bond when an operator has complied with all such obligations.

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## **HEARINGS UNIT OVERVIEW**

The Hearings Unit is responsible for all matters related to Commission hearings. The Commission holds weekly hearings at which it takes up applications for oil and gas development, adjudicatory matters, and conducts rulemakings as needed. The Hearings Unit reviews and processes all applications for Commission orders, contested matters, rulemaking hearings, and enforcement matters and organizes public comment opportunities.

The Hearings Unit currently consists of a manager, a supervisor, hearings officers, hearing assistant and a commission legal assistant.

# **Adjudicatory Applications**

The Hearings Unit reviews and processes applications for pooling, spacing, unitization, increased wells density, and exception locations, as well as any other matter within its jurisdiction.

If an interested party protests a requested order, a ECMC Hearing Officer will convene a prehearing conference between the parties. If the protest cannot be resolved informally, an adjudicatory hearing will be held before the Commission. If the matter is not protested and Commission Staff recommends approval, the matter will be placed on the Commission's consent agenda.

Any person can make an oral statement at the hearing or submit a written statement regarding a proceeding before the Commission.

## Rulemaking

The Commission has statutory authority to make rules (regulations); the rulemaking process is governed by the State Administrative Procedure Act. The Commission may initiate rulemaking upon its own motion or in response to an application filed by any person as set forth in Rule 529.

All rulemakings are public processes and at least one stakeholder meeting is required. For significant rulemakings, it is common to hold multiple stakeholder meetings and rulemaking may extend over months and have multiple hearing days.

## Public Participation

## Adjudicatory Hearing

- Any person may address the Commission during a hearing.
- Any person may submit written comments on Applications for Permits to Drill.
- Any person can request, through their Local Government Designee, a hearing on an APD or alleged rule violations.
- Any person adversely affected or aggrieved may request the Director to issue a Notice of Alleged Violation.

## **Public Comment**

 Any person can provide public comment at a Commission hearing by signing up at the ECMC website. Additionally, any person can send written comments at any time to the Commission.

## Rulemaking

Any person may petition the Commission for a rulemaking.

- Any person may participate as a party in a rulemaking.
- Any person may participate as a stakeholder in a pre-rulemaking process.

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# INFORMATION AND APPLIED TECHNOLOGIES UNIT OVERVIEW

The Information and Applied Technologies Unit is responsible for maintaining the ECMC COGIS information system and the Geographic Information System (GIS) mapping system. This work allows for transparency, clarity, and responsiveness of information processes with the public and all stakeholders. This unit also is responsible for ECMC's website, creation of website applications, and production data reporting.

The Unit has a manager, a production supervisor and production analysts; a senior data analyst, an application developer, data coordinator and data analysts; and a senior research scientist.

# Information Systems

The ECMC requires operators to submit permit applications for most oil and gas activities such as: building a location, drilling and completing a well, installing production facilities, constructing a pit, conducting a seismic survey, operating a centralized waste management facility, operating an injection facility and plugging a well, subsequent operations and monthly production reports. Almost all of these submittals involve the completion of a form with supporting documentation.

All of the information submitted to the agency for every well and facility is retained in the ECMC database on ECMC's website. This database is a comprehensive repository of Colorado's oil and gas data.

## Online (GIS) Map

The ECMC website includes an online interactive map system. All wells and facilities are presented spatially within the standard governmental survey. The map system enables the display and use of other critical spatial information related to permit approval process, including the wildlife areas defined by the Colorado Parks and Wildlife and the public water supply system buffer zones defined by the Colorado Department of Public Health and the Environment.

The functionality of the map system is further enhanced by the agency's acquisition and incorporation of other spatial data such as topography, roads and railroads, water resources, county and municipality boundaries, federal and state surface and minerals, and aerial photos.

The ECMC map system includes GIS data for Off-Location Flowlines. The data is displayed on the public map at a restricted scale and is provided to local governments upon their submittal of a confidentiality agreement.

The Information & Applied Technologies Unit is responsible for maintaining, upgrading and developing the COGIS information system and the GIS mapping system. This work allows for transparency, clarity and responsiveness of information processes.

## **Production Reporting**

Operators are required to submit a Monthly Report of Operations (Form 7) for every active well they own. This Production Report includes the status of the well, the name of the producing geologic formation, the volumes of oil and gas and water produced during the month, and the volumes of hydrocarbons sold during the month.

The reports are reviewed and processed by ECMC Staff and then entered into the database. This production data is posted on ECMC's website, where it is available to download using a variety of search criteria: for a single well, for all the wells owned by a particular operator, for all the wells

in a county and for all the wells in the state.

The production data is also used by:

- The Colorado Department of Revenue to verify Operators' Severance Tax payments
- Royalty mineral owners and partners to monitor their payments from the operator of a well
- Geoscientists and engineers to study the producing reservoirs in the state
- ECMC Staff to determine Operators' compliance with numerous rules, including the wellbore integrity rules.

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# PLANNING & PERMITTING UNIT

The Planning & Permitting Unit includes the Location Assessment and the Permit/Completion Groups and is responsible for both the surface and subsurface permits, which an operator must obtain from ECMC prior to drilling a well. The Location Assessment Group primarily addresses the surface-related issues that are part of Oil & Gas Development Plans (OGDP) or Comprehensive Area Plans (CAP). The Permit/Completion Group addresses any Application for Permit-to-Drill (APD) or the Form 2, which is required for each proposed well and primarily addresses "down-hole" or subsurface issues.

The Planning & Permitting Unit has a Manager, Supervisors, Senior Location Assessment Specialist, Location Assessment Hearing Liaison and Location Assessment Specialists.

## OIL & GAS LOCATION ASSESSMENT

The Form 2A addresses the surface-related aspects of construction, drilling, completions and production operations. The Form 2A includes the operator's plans for pad construction, wells, equipment, and facilities. The Form 2A includes site-specific information about land use, soil and vegetation types, surface water and groundwater, wildlife habitat, and cultural features such as homes, roads, and utilities. The operator's best management practices (BMPs) ensure the protection of public health, safety, welfare, wildlife and the environment.

Every Form 2A is reviewed by Location Assessment Specialists who are trained and educated as Environmental Protection Specialists (EPS). Some Location Assessment Specialists are assigned to specific regions of the state where they have unique expertise. All Location Assessment Specialists review Form 2As as part of OGDP and CAP applications, and focus on avoiding, minimizing, and/or mitigating impacts to public health, safety and welfare, the environment and wildlife resources, and ensuring proposed new locations and operations are in full compliance with ECMC rules. Additionally, Location Assessment Specialists work with Local Governments and/or federal agencies such as the Bureau of Land Management (BLM) or US Forest Service (USFS), to collaborate and provide two-way feedback on concurrent permits. These consultations are also extended to sister agencies such as the Colorado Department of Public Health and Environment (CDPHE) for locations near human populations, and Colorado Parks and Wildlife (CPW), for proposed locations that are in mapped sensitive wildlife habitats.

As a result of Location Assessment staff review, including the comments received from the public, local government, or other agencies, site-specific Conditions of Approval (COAs) may be applied to the permit. These COAs are additional mitigation measures or engineering controls that further address specific concerns or issues.

The OGDP application also includes the Form 2B (Cumulative Impact Data Identification), which collects estimates of adverse and beneficial impacts related to proposed oil and gas operations. The Location Assessment Group uses this data to prepare an annual report to the Commissioners, in order to better understand emerging trends in operations, impacts, and receptors, and to provide recommendations to the Commission for possible rule updates.

Once the OGDP or CAP application has gone through the technical review process, it receives a Director's Recommendation, which is then part of the hearing process for the Commission in determining whether to approve, deny or stay the OGDP or CAP application. All of the information associated with an OGDP or CAP application is available to the public through the ECMC website.

The Location Assessment Group also identifies, and works with the operator to resolve, any surface-related concerns for proposed new or existing operations, as reviewed on Form 2 (APDs), Form 4 Sundry Notices, Form 6 Notice of Intent to Abandon, and Form 15 Pit Permits. Location Assessment Group also processes post-construction reporting on the Form 45 to ensure the newly built location complies with the approved permit.

## PERMIT/COMPLETION

The Permit/Completion Group reviews every Application for Permit-to-Drill (APD) or Form 2, which is required for each proposed well and primarily addresses "down-hole" or subsurface issues including mineral development (spacing), targeted formations, and correlative rights. They work closely with ECMC Engineering staff to ensure the proposed wellbore will effectively and efficiently reach and develop the targeted minerals while ensuring wellbore integrity.

## Requirements

Each APD requires information along with supporting documentation on the physical aspects of the well, drilling operations, mineral ownership, distances to cultural features, and objective reservoir development.

## Form 2 Reviews

Each APD is reviewed by the ECMC's Permit & Completion and Engineering Groups. These reviews ensure that the proposed well is in compliance with Commission rules, orders, and policies.

The Permit/Completion Group verifies well's proposed location (surface location as well as productive zone, which may be vertical, directional, or lateral/horizontal), mineral lease and ownership (fee, federal, state, or Tribal), and compliance with and accuracy of proposed mineral spacing (Drilling and Spacing Units, Wellbore Spacing Units, or statewide spacing). The Engineering Group verifies the integrity of well design - casing and cement and the accuracy of offset well evaluation.

Either group may apply a COA to the permit for any particular aspect of the proposed well that requires a specific operational condition or constraint in order to ensure the well will be operated in a manner protective of public health, safety, welfare, the environment and wildlife resources.

The Permit/Completions Group also reviews permit applications for conducting seismic surveys, injection wells, and plugging operations.

All of the information associated with an APD is available to the public through the ECMC website.

# **Hearing Application Reviews**

The Permit/Completions Group reviews every hearing application that is submitted to the ECMC. These applications include OGDPs, variance requests, spacing and pooling, Enhanced Oil Recovery (EOR), and unitization requests. The Permit/Completions staff reviews these applications for compliance with the ECMC's 500-series rules; for some applications (such as OGDPs) the review also includes vetting the required geologic testimony and reviewing any historic spacing of minerals for a proposed development plan.

#### Form 5/5A Reviews

Aside from reviewing permit and hearing applications, the Permit/Completions Group is tasked with reviewing Form 5 (Drilling Completion Reports) and Form 5A (Completed Interval Reports), submitted by operators after drilling and completing wells. This review is done to ensure the well was drilled and completed in compliance with all applicable ECMC rules and the approved permit. Any occurrence of non-compliance may be referred to the Enforcement Group.

The Permit/Completions Group also reviews Form 4 Sundry Notices and Form 6 Well Abandonment (Notice of Intent and Subsequent Reports). These reviews are conducted for proposed operations as well as "after the fact" reporting of work that has been completed.

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# ORPHANED WELL PROGRAM

ECMC's Orphaned Well Program identifies, prioritizes, and addresses oil and gas wells, locations, and production facilities statewide for which there are no known responsible parties or for which financial assurance instruments have been claimed. If not addressed, these oil and gas locations may impair a surface owner's farming or ranching activity or other use of the property, harm wildlife, pose risks to the environment or present a safety hazard to the public.

The Orphaned Well Program has a manager, supervisors, engineers, engineering technicians, environmental and reclamation specialists.

Executive Order D 2018-12 was signed on July 18, 2018, to improve the environment, public health, and safety of Coloradans. Directives included the following:

- Prioritize a list of Orphaned Wells and Orphaned Sites and update the list annually into low-, medium-, and high-priority categories;
- Plug, remediate, and reclaim Orphaned Wells and Orphaned Sites, including the removal of equipment; and
- Prepare a publicly-available Annual Report to document the program's progress.

Funding for this program includes mill levy, bonds, penalties, as well as anticipated new federal funding and an enterprise fund mechanism. For more information on the Federal Infrastructure and Investment Jobs Act as well as the Orphaned Well Program, click HERE.

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