

CORE ROUNDTABLE RECOMMENDATIONS

Through examination of the four focus areas and through its comprehensive research and dialogue process, the Roundtable also identified a set of broader, overarching recommendations that fit within its framework:

The Commonwealth of Pennsylvania should increase investments in improving the accuracy, functionality, and transparency of its oil and gas data infrastructure. The Pennsylvania Department of Environmental Protection (DEP) should publicly commit to substantial investments in data and information technology infrastructure, possibly using impact fee revenues. The Commonwealth has made significant progress in its management of oil and gas data over the last several years, but additional investments in innovation and data transparency and utility are necessary. In order to support these data improvements, DEP is encouraged to leverage existing university and private sector data management expertise in the Commonwealth. The Roundtable also suggests that the General Assembly consider legislation requiring more frequent industry data reporting (e.g., monthly rather than biannual production data) and instituting stronger requirements for timely and accurate filing of required data by industry. The Roundtable urges DEP to model its oil and gas regulatory data infrastructure on the Risk Based Data Management System (RBDMS).²⁴ RBDMS was developed in 1992 by the Groundwater Protection Council and is currently used by 22 regulatory agencies across the country. The system is regularly updated based on state feedback and facilitates streamlined collaboration among states on oil and gas issues. While Pennsylvania previously attempted to use this data platform and determined that it could not be effectively adapted to existing state systems, DEP could benefit from modeling its data infrastructure on RBDMS. Increased investment in user-friendly, accurate, and real-time systems will improve the efficiency of department-industry interactions, enhance research and data analysis capabilities, facilitate public access to information, and build public trust.

The Commonwealth should develop regulatory staffing parameters and oil and gas annual reports. Since 2008, well permit applications have increased nearly six-fold, with a corollary growth in oil and gas staff from 64 in 2004 to 202 employees today.²⁵ As DEP moves forward, it should now develop publicly available parameters for relevant staffing measures (possibly including minimum inspector-to-well ratios, frequency and number of well inspections, time frame required for permit review and action, expectations for timely responses to public and stakeholder complaints and inquiries, and other critical metrics). These parameters should be transparently developed and based on requirements in the Oil & Gas Act, benchmarks against other states, comparisons with regulatory best practices, and diverse stakeholder input. While some suggest that DEP is adequately staffed to manage unconventional oil and gas development, diverse stakeholders report continued concern about DEP's limited resources and the

²⁴ Groundwater Protection Council, Risk Based Data Management System: <http://www.gwpc.org/programs/rbdms>

²⁵ DEP. "3-Year Oil and Gas Regulatory and Program Cost Analysis Report to the EQB." pg.2. http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/2012/TAB%20MEETINGS/APR232013/2013-04-23_Three_Year_Report_to_Oil_and_Gas_TAB_-_Final.pdf

resulting impact on environmental protection. DEP also should report annually – and publicly – on its oil and gas activities, including information about the prior year’s progress and priorities for the upcoming year. The inclusion of transparent staffing parameters in this annual report would provide a clearer picture of DEP’s additional staffing needs, if any, and demonstrate its continued ability to fully implement the state’s oil and gas regulations, including Act 13/Chapter 78 provisions.

The Commonwealth should restructure the Oil and Gas Technical Advisory Board. While most DEP advisory committees are diverse and provide opportunities for cross-sector dialogue on policy and technical issues, the existing Oil and Gas Technical Advisory Board (TAB) has five members, all with geologic and petrochemical backgrounds and most with industry ties (this structure is statutorily mandated in the current PA Oil & Gas Act).²⁶ As DEP moves forward with Chapter 78 rulemaking to implement Act 13, the absence of a diverse regulatory committee to support oil and gas staff activities, to evaluate/generate ideas, and to inform the Environmental Quality Board’s decision making is a notable deficiency. (For additional information on the TAB and the overall Pennsylvania regulatory process, please see [Appendix D](#).) The TAB should be diverse in terms of geography, expertise, stakeholder representation, and political affiliation. Ideally, TAB members should continue to be unpaid volunteers and should be appointed to staggered four-year terms by the Governor. A sample seven-member composition could include three with substantial oil and gas experience (at least two of these with an undergraduate degree in petroleum geology or petroleum engineering); one local county/municipal official; one with substantial environmental protection experience; one with substantial conservation, ecology, or reclamation experience; and one engaged in agricultural production. At least one of the seven members also should be a royalty owner, and a maximum of four members should be from the same political party. The administration and the legislature should expand the Advisory Board’s scope beyond technical issues and diversify the membership at the earliest possible time.

The Commonwealth should continue to regularly evaluate the ability of existing budget support and permit fees to support oil and gas regulation. As the administration and the legislature consider future DEP budgets, they should regularly evaluate the ability of budget support and permit fees to adequately support DEP oil and gas operations. Currently, the oil and gas program is funded by a combination of new permit fees, impact fee revenue, fines, and civil penalties. With current low natural gas prices and slowed drilling, it is unclear if new permit fees will be able to sustain the necessary oil and gas regulatory staffing level. In 2009, DEP adopted a rulemaking that, for the first time in 25 years, increased the well permit fee from a flat \$100 to a sliding scale based on the length of the well bore.²⁷ The average fee for an unconventional well over the last four years was \$3,200.²⁸ That same 2009 rulemaking also required DEP to review the adequacy of permit fees every three years and submit this evaluation to the Environmental Quality Board. The first of these triennial reports was prepared in early 2013, and it indicated a need for additional funding support for the oil and gas program.²⁹ Specifically, the report

²⁶ DEP Technical Advisory Board:

http://www.portal.state.pa.us/portal/server.pt/community/oil_and_gas_technical_advisory_board_%28TAB%29/18260

²⁷ DEP. “3-Year Oil and Gas Regulatory and Program Cost Analysis Report to the EQB.”pg.1.

²⁸ Ibid.

²⁹ Ibid. pg.3.

suggests that DEP should abandon the well bore length fee schedule and adopt a flat fee of \$5,000 for horizontal unconventional well permits and \$4,200 for vertical unconventional well permits.³⁰

Conventional wells would retain the sliding scale adopted in 2009.³¹ The 2013 review and future versions will be particularly helpful to the legislature, the governor, and the public in gauging funding requirements for oil and gas regulatory activities. In order to help defray the costs of ongoing compliance inspections, the General Assembly could consider enabling DEP to establish an annual permit fee for active wells, such as those used in other state environmental permitting areas.

The Commonwealth should participate in regular, comprehensive STRONGER reviews. DEP should regularly participate in State Review of Oil and Natural Gas Environmental Regulations (STRONGER) reviews in order to benefit from independent assessments of the state's oil and gas regulations and to identify opportunities for additional improvement.³² Pennsylvania has led by example through its previous STRONGER participation, including the completion of a review in 2009 that focused on its hydraulic fracturing regulations. Indeed, a more comprehensive and up-to-date STRONGER review already is underway in 2013-14, and it may take into account proposed regulations based on Act 13.

The federal government, state government, and stakeholder groups should support efforts to increase balanced research on and rigorous monitoring of the possible impacts of unconventional oil and gas development. The federal and state governments and all stakeholder groups should support efforts to increase the amount of balanced research on and robust monitoring of the possible acute and cumulative environmental, economic, ecological, and public health effects of unconventional oil and gas development. The Roundtable's recommendation for an independent research fund represents a particularly compelling opportunity for progress in the understanding of oil and gas development impacts.

Government, industry, and regional universities should support NETL as the premier national unconventional oil and gas technology research hub and, through NETL, continue to advance technology and operational innovations. The Appalachian Basin states are well-positioned to lead on oil and gas technology and operational innovations with the excellent capabilities of local research universities and with the U.S. Department of Energy's National Energy Technology Laboratory (NETL) and its Regional University Alliance, which are headquartered in Southwestern Pennsylvania.³³ The federal and state governments, along with diverse stakeholders throughout the basin, should seek stronger relationships with NETL and support NETL's critical national role in research and technology development. This enhanced government and industry partnership, through NETL, should continue to focus on innovations that diminish the environmental risks of unconventional resource extraction, transport, and use.

DEP should strengthen engagement with and support of various cross-sector and industry efforts to develop Best Management Practices. DEP should continue its engagement with and support of various

³⁰ Ibid.

³¹ Ibid.

³² State Review of Oil and Natural Gas Environmental Regulations: <http://www.strongerinc.org>

³³ U.S. Department of Energy National Energy Technology Laboratory: <http://www.netl.doe.gov>. Regional University Alliance: <http://www.netl.doe.gov/rua>

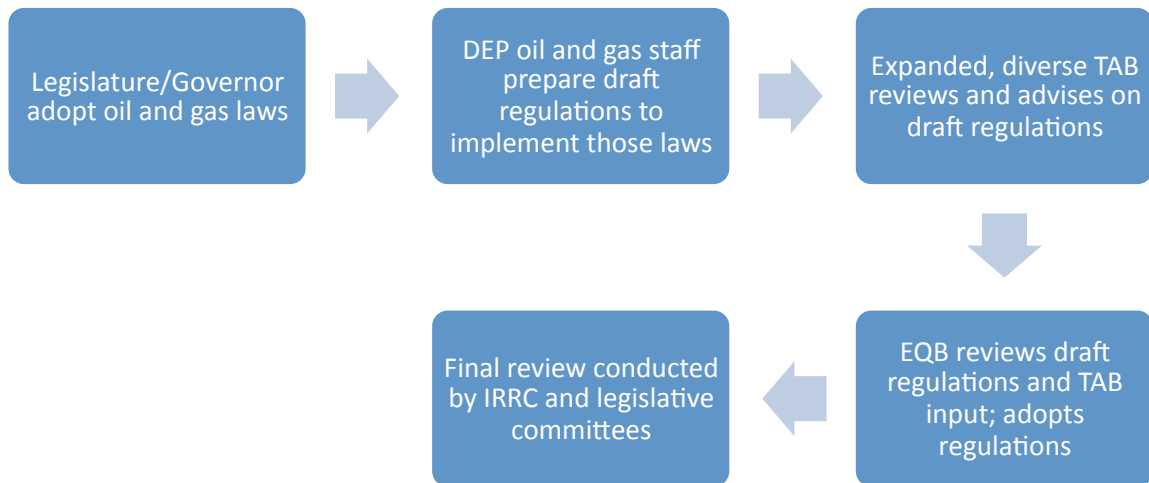
multi-stakeholder and industry efforts to develop best management practices (BMPs) and high-level performance standards. As appropriate, these practices and standards should be considered for incorporation into future revisions of relevant regulations and guidance documents to ensure continual improvement of industry operations.

If implemented, these core recommendations will strengthen Pennsylvania's ability to effectively and safely manage unconventional oil and gas development.

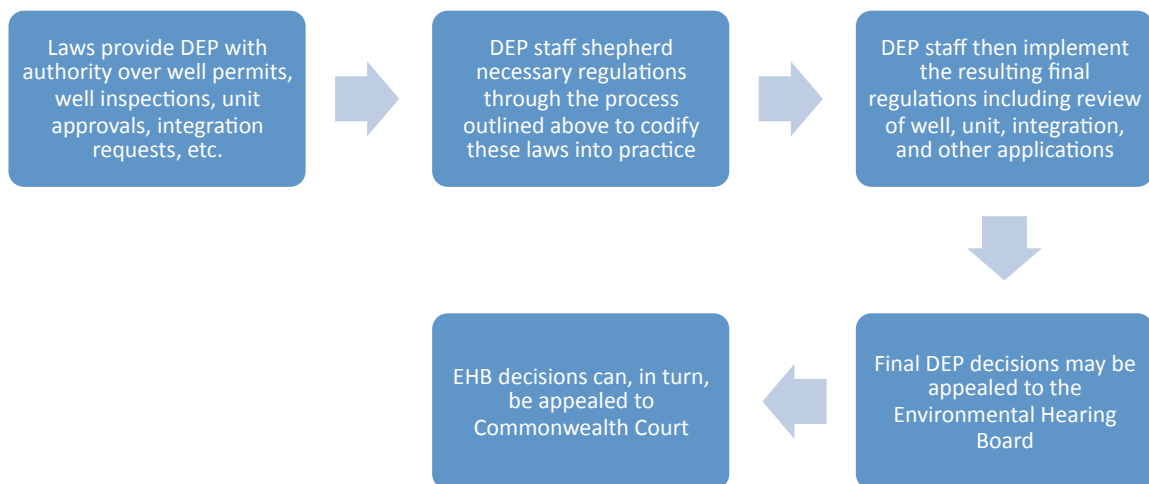
APPENDIX D: PENNSYLVANIA OIL AND GAS REGULATORY AND DECISIONS STRUCTURE

The following is a brief summary of entities engaged in overseeing oil and gas development in Pennsylvania, with one example from Colorado. The regulatory approval and decision processes graphically outlined below largely reflect the current protocols for DEP. Additional roles that reflect Roundtable recommendations also have been added.

PENNSYLVANIA DEP OIL AND GAS REGULATORY APPROVAL PROCESS



PENNSYLVANIA DEP OIL AND GAS DECISION AND APPEALS PROCESS



Pennsylvania Oil and Gas Technical Advisory Board (TAB)

The TAB was authorized under Act 223 of 1984 (Oil and Gas Act) and retained in Act 13 of 2012. DEP consults with the TAB in the formulation, drafting, and presentation stages of all regulations of a technical nature and guidance documents promulgated under the Oil and Gas Act and other relevant laws. The TAB shall be given a reasonable opportunity to review and comment on all regulations of a technical nature prior to submission to the Environmental Quality Board.

The TAB consists of five members, all of whom are chosen by the Governor and are residents of Pennsylvania. TAB members are unpaid but reimbursed for expenses.

- Three members shall be petroleum engineers, petroleum geologists, or experienced driller representatives of the oil and gas industry with three years of experience in Pennsylvania.
- One member shall be a mining engineer from the coal industry with three years of experience in Pennsylvania.
- One member shall be a geologist or petroleum engineer with three years of experience in Pennsylvania and shall be chosen from a list of three names submitted by the DEP Citizens Advisory Council to the Governor, who will sit as a representative of the public interest.

TAB subcommittees may be formed to address specific technical issues. One member of the TAB will act as chair of the subcommittee and other members will be individuals as deemed by the TAB to possess the technical competence in the specific subject area the subcommittee has been formed around.

Members of the TAB select a chair by majority vote and that chair will have a two year term. Each member of the TAB is able to exercise one vote in each matter placed before the TAB for which a vote is called for. Majority rules and four members of the TAB shall constitute a quorum. The TAB meets when called on by the Secretary of DEP, but not less than semiannually. TAB meetings are open to the public and may receive input from those in attendance. The DEP Office of Oil and Gas Management provides program and administrative support to the TAB.

Pennsylvania Environmental Hearing Board

This overview is adapted from the EHB website:

The Environmental Hearing Board (EHB) was created as part of the Department of Environmental Resources in 1970. Although its enabling statute went into effect in January 1971, the EHB was not staffed and ready to function until February 15, 1972.

When the Department of Environmental Resources was established, the legislature abolished several other departments, boards, and commissions and transferred their powers and duties to the new department. The set-up was unique in that the department was given its own legislative arm and its own judicial arm. The legislative arm, the Environmental Quality Board, was given the sole power to adopt environmental regulations. The judicial arm, the Environmental Hearing Board, was given the sole power to hear and decide appeals from department actions. Both arms were given semi-independent status.

This was achieved for the Environmental Hearing Board by having the Governor appoint the board members, subject to Senate confirmation, to six-year terms.

The EHB was made independent of the department by the Environmental Hearing Board Act of 1988. This act, effective January 1, 1989, also increased the number of board members from three to five and required them to be full-time administrative law judges with a minimum of five years of relevant legal experience.

The EHB provides a forum where persons or corporations displeased with department actions can seek judicial-like relief. Although the EHB is not part of the judicial branch of government, it operates like a court. Litigants file pleadings, motions, and petitions; engage in discovery; take part in hearings; and submit briefs. Legal representation is required for all but individuals, and the EHB urges all litigants to have a lawyer because of the technical, scientific nature of environmental law and the intricacies of entering evidence into the record.

While the EHB functions like a court, its jurisdiction is limited - it can review only final actions of the Department of Environmental Protection. But, because the Department has such extensive authority - administering 50 or so statutes - the EHB is kept quite busy. Moreover, the EHB also hears certain actions brought by the department such as Complaints for Civil Penalties. More than 13,000 cases have been filed during its existence. Many of these were settled for one reason or another. The others proceeded to a final EHB decision, either in the form of an adjudication (where a hearing has been held) or an opinion and order (where a dispositive motion had been granted). All adjudications of the EHB are circulated immediately to a list of subscribers and are published on the board's website.

Litigants dissatisfied with final decisions of the EHB have the right to appeal to the Commonwealth Court and from there, if allowed, to the Pennsylvania Supreme Court. These courts have rendered opinions in more than 400 board cases, agreeing with the Environmental Hearing Board in the vast majority of cases. Since 1998, the EHB's decisions have only been vacated, reversed or remanded 13 times. Because of its position as the first link in the judicial review chain, the EHB has made the first decisions interpreting many environmental laws and regulations with no judicial precedents to rely on. The Pennsylvania appellate courts have recognized the EHB's unique expertise in environmental regulation and have generally deferred to its interpretations.

The subject matter of the cases filed with the EHB mirrors the statutes and regulations in existence and being enforced at any one time. During the early years, the cases dealt primarily with water and air pollution. These were years when the department was striving to get municipalities to construct sewage systems and treatment plants and to get industries to install water and air purification devices. Then the cases dealt more with solid waste (landfills and incinerators) and the surface mining of coal and non-coal minerals. In recent years, many of the cases have involved issues concerning the development of energy resources in an environmentally sound way. Other subject areas include, for example, dams and encroachments, oil and gas, air, safe drinking water, storage tanks, stormwater management,

underground coal mining, water allocations, and sewage facilities planning. Because of its role in environmental regulation, the EHB becomes involved in many controversial issues.

The EHB acts *de novo*. This means that it decides cases on the basis of the evidence before it, which may differ from that considered by the department. If the EHB concludes that the department abused its discretion, it has the authority to substitute its own discretion. More often, however, the EHB remands the case to the department for corrected action. The EHB also has the authority to assess civil penalties under some statutes and to award legal fees and expenses to qualifying litigants.

The Environmental Hearing Board has had a procedural rules committee since its inception. These attorneys meet regularly to consider the EHB's procedural rules and recommend changes when deemed advisable. Under the Environmental Hearing Board Act, the Rules Committee is to consist of nine persons designated by the Governor, legislative leaders, the department secretary and the department's Citizens Advisory Council for terms of two years.

Offices of the Environmental Hearing Board have been in Harrisburg since the beginning and in Pittsburgh for nearly that long. A Norristown office was opened in 2004. The Environmental Hearing Board's Harrisburg office and hearing rooms are currently located on the second floor of the Rachel Carson State Office Building on Market Street. In Pittsburgh, they are on the second floor of Piatt Place on Fifth Avenue, and in Norristown, they are on the fourth floor at 2 East Main Street.

The Environmental Hearing Board has effectively served as a buffer between the regulators and the regulated, providing all citizens with a forum where they can challenge the actions of the department and receive judicial-like relief. This is an important role in a controversial arena.

Pennsylvania Environmental Quality Board

The Environmental Quality Board (EQB) is a 20-member independent board that reviews and adopts all of the Department of Environmental Protection's regulations. It is chaired by the Secretary of the Department of Environmental Protection.

The 20 members of the Board include representatives from 11 state agencies, five members of the Citizens Advisory Council, and four members of the General Assembly.

The EQB also considers petitions to change regulations and has other responsibilities, including reviewing State (Clean Air) Implementation Plan changes, siting a low-level radioactive waste disposal facility, and considering applications for a certificate of public necessity for hazardous waste disposal facilities.

The EQB was established by Act 275 of 1970 to do the following:

1. Develop a Master Environmental Plan for the commonwealth.
2. Formulate, adopt, and promulgate rules and regulations as necessary to accomplish the Department of Environmental Protection's work.

3. Have power to subpoena witnesses and records.
4. Review reports and advise the department on matters of policy.

Board Composition (20 members)

- Secretary of Agriculture
- Secretary of Community and Economic Development
- Secretary of Environmental Protection
- Secretary of Health
- Secretary of Labor and Industry
- Secretary of Transportation
- Executive Director of the Fish and Boat Commission
- Executive Director of the Game Commission
- Chairperson of the Public Utility Commission
- Executive Director of the Historical and Museum Commission
- Executive Director of the State Planning Board
- Five members annually elected by the Citizens Advisory Council
- Four members of the General Assembly, one appointed by each of the following:
 - President Pro Tempore of Senate
 - Senate Minority Leader
 - Speaker of the House of Representatives
 - House Minority Leader

Term

State Agency Members - consistent with term of agency appointment

General Assembly Members - at the pleasure of the legislative leaders

Citizens Advisory Council Members - elected annually by members of the Citizens Advisory Council

Voting

All board members may designate alternates with voting privileges in accordance with Sections 213 and 471 of the Administrative Code. Eight members of the board constitute a quorum.

Meetings

Meetings are held the third Tuesday of every month in the Rachel Carson State Office Building in Harrisburg. Special meetings and hearings are held at the discretion of the EQB. Meetings are open to the public; however, public statements are not permitted at the EQB meetings. EQB public hearings may be scheduled to solicit public comments on proposed regulations.

Pennsylvania Oil and Gas Conservation Commission (OGCC)

The OGCC was envisioned in the 1961 Conservation Law but was never fully activated and is believed to have met only once. As originally envisioned, the OGCC's powers and duties included the following:

- To execute and carry out the provisions of the Conservation Law
- To make such investigations and inspections of records and facilities as it deemed necessary and proper to discharge its duties and perform its functions
- To require identification on the premises of ownership of oil or gas wells
- To require the filing of drillers' logs and filing of such other appropriate well logs
- To require the drilling, casing, operation, and plugging of wells in such manner as to prevent the escape of oil or gas; the detrimental intrusion of water into any oil or gas pool that is avoidable by efficient operations; and blowouts, cavings, seepages, and fires
- To review upon proper application spacing and pooling orders and provide for the integration or communitization of interests within a drilling unit
- To classify pools as oil or gas pools, or wells as oil or gas wells, for the purposes material to the interpretation or administration of the Conservation Law
- To promulgate and enforce rules, regulations, and orders to effectuate the purposes and the intent of the Conservation Law and to fix appropriate fees for services rendered
- To protect correlative rights

Most of the powers and duties that were originally granted to the OGCC by the Oil and Gas Conservation Law were transferred to the Department of Environmental Resources (DER) in the 1970s and later to DEP in the 1990s. The rulemaking duties were granted, along with all other DEP regulatory promulgation powers, to the Environmental Quality Board in the 1990s. DEP's Office of Oil and Gas Management is now responsible for statewide oil and gas conservation and environmental programs to facilitate the safe exploration, development, and recovery of Pennsylvania's oil and gas reservoirs in a manner that will protect the commonwealth's natural resources and the environment. The office develops policy and programs for the regulation of oil and gas development and production pursuant to the Oil and Gas Act, Coal and Gas Resource Coordination Act, and Oil and Gas Conservation Law; oversees the oil and gas permitting and inspection programs; develops statewide regulation and standards; conducts training programs for industry; and works with the Interstate Oil and Gas Compact Commission and the Technical Advisory Board.

Colorado Oil and Gas Conservation Commission (COGCC)

The COGCC was created in 1951 when the Oil and Gas Conservation Law was enacted. The Commission was created to assist in accomplishing the goals set forth by the Act, which were to promote the development, production, and utilization of oil and gas resources in Colorado as well as to protect correlative rights and to prevent waste.

Timeline of the development of the COGCC:

- 1952 – Commission consisted of five governor appointees, who had expertise in the oil and gas industry to promote the development, production, and utilization of oil and gas.
- 1985 – Legislature mandates that COGCC promulgate oil and gas rules to protect public health, safety, and welfare.
- 1994 – Legislature broadened COGCC powers to include the prevention and mitigation of significant adverse environmental impacts from oil and gas development.

- 2007 – Amendments required comprehensive revisions to the Conservation Law, including the following:
 - Membership was expanded by two additional seats: the directors of Colorado Department of Public Health and Environment (CDPHE) and Department of Natural Resources (DNR)
 - Now responsible for promulgating and enforcing all laws/rules/regulations governing oil and gas activities in Colorado
 - Regulates all activities associated with the construction, completion, and production of a well
 - Requires operators to provide advance notice to affected parties
 - Requires good faith consultation with surface owners, local government, and other agencies to address oil and gas activity impacts
 - Provides protection for public health and the environment
 - Minimizes adverse impacts on wildlife resources
 - Oversees implementation of unitization and integration statutes

Current COGCC Structure:

- 9 total members, all appointed by the governor
 - 2 Executive Directors of CDPHE and DNR (ex-officio, voting members)
 - 2 who reside west of the continental divide
 - 3 with substantial oil and gas experience
 - 2 out of 3 with a college degree in petroleum geology or petroleum engineering
 - 1 local government official
 - 1 with substantial environment or wildlife protection experience
 - 1 with substantial soil conservation or reclamation experience
 - 1 engaged in agriculture production/royalty owner
 - Maximum of 4 from the same political party, excluding directors