



New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Joanna Prukop**  
Cabinet Secretary  
**Reese Fullerton**  
Deputy Cabinet Secretary

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**Mark Fesmire**  
Division Director  
Oil Conservation Division



January 29, 2009

Chairman Mark Fesmire  
Oil Conservation Commission  
1220 S. St. Francis Drive  
Santa Fe, NM 87505

*By hand delivery*

Re: Case 14255

Dear Chairman Fesmire,

At the conclusion of testimony in Case 14255, the Oil Conservation Commission ordered the parties to file proposed findings and conclusions by January 29, 2009.

Attached to this letter are the proposed findings and conclusions submitted by the Oil Conservation Division. I have prepared the findings and conclusions in the form of a draft order. For the Commission's convenience, I have provided references to the transcript and exhibits.

Because the proposed findings and conclusions adopt modifications to the proposed sections, I have also attached revised versions of the proposed sections. The additions and deletions represent changes to the version of the proposed sections set out in the Division's Ex. 22.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gail MacQuesten".

Gail MacQuesten  
OCD Attorney

ec, with attachments:

Scott Hall, Attorney for Approach Operating, LLC, [shall@montand.com](mailto:shall@montand.com)  
Karin Foster, Attorney for Independent Petroleum Assn. of New Mexico,  
[Fosterassociates2005@yahoo.com](mailto:Fosterassociates2005@yahoo.com)



THIS MATTER came before the Oil Conservation Commission (“Commission”) on December 11 and 18, 2008, and January 15, 2009, at Santa Fe, New Mexico, on application of the New Mexico Oil Conservation Division (“Division”) through the Chief of the Environmental Bureau, and the Commission, having carefully considered the evidence, the pleadings, comments and other material submitted in support and in opposition of the proposal, now, on this \_\_\_ day of \_\_\_\_\_, 2009,

#### **FINDS:**

Proper notices have been given of this proceeding and of the public hearing hereof, and the Commission has jurisdiction of the subject matter.

#### **The Division’s Application**

The Division filed its application for rule amendment on November 10, 2008, proposing to amend 19.15.39 NMAC to add two new sections setting out provisions applicable to Santa Fe County and the Galisteo Basin.

The first proposed section, to be codified at 19.15.39.9 NMAC (“Section 9”), would require operators to obtain Division approval for an exploration and development plan prior to drilling, re-entering, or deepening a well located in Santa Fe County or the Galisteo Basin, and to operate wells in accordance with that plan. Proposed Section 9 sets out the process for applying for, granting or denying, renewing, amending, and revoking an exploration and development plan, and provides a process for replacing a plan with a special pool order.

The second proposed section, to be codified at 19.15.39.10 NMAC (“Section 10”), sets out additional requirements for applications for permits to drill, re-enter, or deepen wells subject to an exploration and development plan. Subsection A of Section 10 identifies additional requirements for the permit application. Subsection B of Section 10 sets out conditions that will be imposed on permits to drill, re-enter or deepen a well unless otherwise specified in the operator’s approved exploration and development plan.

#### **The Hearing Process**

The Commission required any person recommending modifications to the proposed rules to file a notice of recommended modifications by November 24, 2008, including the text of the recommended modifications, an explanation of the modifications’ impact, and the reasons for adopting the modifications. The following filed notices of recommended modifications:

- The Division
- The Department of Cultural Affairs, Historic Preservation Division
- The New Mexico Environmental Law Center
- The Western Environmental Law Center
- The New Mexico Wildlife Federation
- Doug Patrick

The Commission required any person intending to present technical testimony or cross examine witnesses at the hearing to file pre-hearing statements by December 3, 2008. The Commission received pre-hearing statements from the Division, the Independent Petroleum Association of New Mexico (“IPANM”) and Approach Operating LLC (“Approach”). The attorneys for IPANM and Approach cross-examined witnesses and presented argument at the hearing, but did not present testimony at the hearing.

The Commission required written comments to be filed by December 3, 2008. The Commission received written comments from the following:

*[Persons submitting written comments were not required to copy Division counsel, and those comments are not posted on the website. Division counsel therefore does not have access to them to prepare these proposed findings and recommendations.]*

The Commission held a public hearing on the Division’s proposal on December 11 and 18, 2008 and January 15, 2009.

At the hearing, the Division presented the testimony of Daniel Sanchez, Brad Jones, Tom Morrison, William V. Jones, and Glenn von Gonten:

- Daniel Sanchez is the Division’s Compliance and Enforcement Manager. He coordinated EMNRD’s response to Executive Orders 2008-004 and 2008-038. Mr. Sanchez submitted pre-filed written testimony, which he adopted at the hearing, and provided additional testimony at the hearing. He provided an overview of oil and gas development in Santa Fe County and the Galisteo Basin, and described the actions that led to the development of the proposed sections.
- Tom Morrison, a registered professional engineer, is currently a private consultant with the Office of the State Engineer. He previously served as the Chief of the Hydrology Bureau and as a Water Resource Engineer in the Office of the State Engineer. He authored the two reports on the hydrology of the Galisteo Basin that were submitted by the Office of the State Engineer in response to Executive Orders 2008-004 and 2008-038. Mr. Morrison testified as an expert in hydrogeology, addressing issues related to the geology, ground water and surface water in Santa Fe County and the Galisteo Basin.
- Brad Jones is an environmental engineer with the Division’s Environmental Bureau, and testified as an expert in environmental engineering and environmental regulation. Mr. Jones submitted pre-filed written testimony, which he adopted at the hearing, and provided additional testimony at the hearing reviewing proposed Sections 9 and 10 and the proposed modifications submitted by the Division.
- William V. Jones, a registered professional petroleum engineer, is a petroleum specialist with the Division’s Engineering Bureau who serves as a Division hearing examiner. He testified as an expert in petroleum engineering. His testimony addressed Section 9’s requirements that the operator provide a proposed drilling program and a proposed mud-logging

program as part of his application for an exploration and development plan. His testimony also addressed the following conditions that apply to drilling permits under proposed Section 10: porosity and water saturation logs; mud-logging; cementing requirements; casing requirements; cement logs; and temporary abandonment status for wells awaiting pipeline connection. Mr. Jones submitted pre-filed written testimony that he adopted at the hearing, and provided additional testimony at the hearing.

- Glenn von Gonten is a senior hydrologist with the Division's Environmental Bureau who testified as an expert in hydrogeology. His testimony addressed the following requirements for an exploration and development plan: contact information; the legal description of the area to be covered by the plan; identification of target zones; topographic maps; maps identifying surface features; hydrogeologic and site reports; proposed plans for monitor wells, wastes, minimizing pad size and consolidating facilities, and future development; and contingency plans. Mr. von Gonten provided pre-filed written testimony which he adopted at the hearing, and provided additional testimony at the hearing.

The following persons were sworn and presented non-technical testimony at the hearing:

- Matthew Droz, with Baker Botts, representing Halliburton Energy Services Corporation. [Tr. I, pp. 277-278; Tr. II, p. 230-237]
- Marita Noon, executive director at CARE, Citizens Alliance for Responsible Energy. [Tr. II, pp. 222-227 and 242-243 ]

The following persons made un-sworn public comments at the hearing:

- Katherine Slick, Historic Preservation Officer with the Department of Cultural Affairs, Historic Preservation Office. [Tr. I, pp. 78-83]
- Brian Egolf, Representative-elect to the State House of Representatives for District 47. [Tr. I, pp. 83-86]
- Megan Anderson, with the Western Environmental Law Center, on behalf of Amigos Bravos, Friends of Wild Rivers, Earthworks, the Oil and Gas Accountability Project, the National Wildlife Federation, the New Mexico Wildlife Federation, the Albuquerque Wildlife Federation, the Climate and Energy Program of Wild Earth Guardians, the Concerned Citizens for the San Juan River Quality Waters Trout Fishery, concerned citizen Art Martinez, New Mexico Trout, Common Ground United, Southwest Consolidated Sportsmen and the New Mexico Council of Trout Unlimited. [Tr. I, pp. 86-88]
- Kim Sorvig, research associate professor in the School of Architecture and Planning at the University of New Mexico. [Tr. I, pp. 88-90]
- Ross Lockridge, representing the Rural Conservation Alliance. [Tr. I, pp. 90-91]
- Allen Hamilton, Conservation Director of the New Mexico Wildlife Federation. [Tr. I, pp. 91-93]

- Tony Dorame, Lieutenant Governor of the Pueblo of Tesuque. [Tr. I, pp. 136-138].
- Mark Mitchell, Historic Preservation Officer for the Pueblo of Tesuque, and former Governor of the Pueblo of Tesuque. [Tr. I, pp. 139-140]
- Louise Vaughn, resident of the Galisteo Basin. [Tr. I, pp. 266-267]
- Rachel Jankowitz, habitat specialist in the Conservation Services Division of the New Mexico Department of Game and Fish. [Tr. I, pp. 267-271]
- Bruce Frederick with the New Mexico Environmental Law Center, representing Drilling Santa Fe County. [Tr. I, p. 271; Tr. 3, p. 223]
- Steve Sugarman, resident of the Galisteo Basin. [Tr. I, pp. 271-277]
- Johnny Micou, resident of Santa Fe County and executive director of Common Ground United, and also representing Drilling Santa Fe. [Tr. I, pp. 278-279; Tr. II, pp. 237-238 ]
- Betsy Siwula-Brandt, resident of the Galisteo Basin, geophysicist and former exploration manager for an oil company. [Tr. II, pp. 101-114]
- Ann Murray, resident of the Galisteo Basin and vice president of the Cerrillos Water Association. [Tr. II, p. 115]
- Linda Spear, resident of Santa Fe County. [Tr. II, pp. 116-121]
- Mary Ann Hattan, resident of the Galisteo Basin and owner of a business in the Galisteo Basin. [Tr. II, pp. 121-122]
- George Byers, involved with natural resource development in New Mexico since 1976. [Tr. II, pp. 220-221]
- John Clemma, resident of Santa Fe and exploration geologist. [Tr. II, pp. 227-230]
- Amy Tucker, resident of the Galisteo Basin. [Tr. II, pp. 238-239]
- Mr. Kramer, resident of Santa Fe County and chemist. [Tr. II, pp. 239-242]

On the third day of hearings, the New Mexico Oil and Gas Association (NMOGA) entered its appearance in the proceeding. NMOGA did not cross-examine witnesses or present testimony or argument. [Tr. III, p. 5]

The Commission deliberated on the application in open session during its meeting on February 24, 2009.

### **Review of Proposed Rule Changes**

#### **Background**

The Galisteo Basin is defined as the surface water drainage area for the Galisteo River. [OCD Ex. 1, p. 3; OCD Ex. 13; Tr. I, pp. 98 and 101] The Galisteo Basin is located in the south half of Santa Fe County, with small portions of the basin extending into San Miguel County to the east, and Sandoval County to the west. [Tr. I, p. 29; OCD Ex.13]

Division records show 29 wells drilled in Santa Fe County. Twenty-two of the 29 wells drilled in Santa Fe County are located in the Galisteo Basin. [Tr. I, p. 30] Division records show 2 wells drilled in that portion of San Miguel County included in the Galisteo Basin, and 1 well drilled in that portion of Sandoval County included in the Galisteo Basin. [OCD Ex. 5; Tr. I, p. 30] The wells were drilled from 1944 up to 1986. [Tr. I, p. 31] All 32 wells have been plugged except for one: the Black Ferrell #001, API 30-049-20022. [OCD Ex. 1, p. 2]

No infrastructure currently exists in Santa Fe County to support oil and gas production, such as waste disposal facilities, transportation pipelines, or downstream facilities. [OCD Ex. 1, p. 2]

The Black Ferrell #001 is located in the center of the Galisteo Basin. [Tr. I, p. 31; OCD Ex. 13] The well was drilled in 1984-1985, and has reported production of approximately 880 barrels of oil. The well is currently shut-in. [Tr. I, pp. 31-32; OCD Ex. 1, p. 2; OCD Ex. 8]

In December 2007, Tecton Energy, LLC applied for permits to drill three wells to be located near the Black Ferrell #001. [OCD Ex. 1, p.3]

The filing of the applications for permits to drill wells in the Galisteo Basin triggered public concern throughout Santa Fe County. [OCD Ex. 1, p.3]

On November 27, 2007, Santa Fe County adopted Ordinance No. 2007-04, placing a moratorium on the acceptance and processing of applications to drill an oil or gas well for a period of three months. [OCD Ex. 1, p. 3; OCD Ex. 14] Santa Fe County subsequently issued Ordinance No. 2008-003 on February 27, 2008 extending the moratorium until February 27, 2009. [OCD Ex. 1, p. 3; OCD Ex. 15]

Since enacting the ordinances, Santa Fe County has scheduled public meetings, hired consultants, drafted a proposed regulatory ordinance governing oil and gas drilling, and drafted oil and gas specific amendment to the county general plan. [OCD Ex. 1, pp. 3-4; OCD Exs. 16 and 17] On December 9, 2008 the Santa Fe County Commission unanimously passed the proposed county ordinance. [Tr. I, p. 34]

On January 24, 2008, Governor Bill Richardson issued Executive Order 2008-004, "Imposing a Six Month Moratorium on New Oil and Gas Drilling in Santa Fe County and the Galisteo Basin." Executive Order 2008-004 directed the Division to suspend the processing and granting of applications for permits to drill in Santa Fe County and the Galisteo Basin and directed the Energy, Minerals and Natural Resources Department (hereinafter "EMNRD") to coordinate with other executive agencies in assessing existing laws, regulations, policies and planning documents to ensure that the State of New Mexico has fully and appropriately exercised its police powers to ensure that no oil and gas drilling activity occurs in Santa Fe County and the Galisteo Basin that would be contrary to the interests of the State of New Mexico and its citizens. [OCD Ex. 1, p. 4; OCD Ex. 18]

Executive Order 2008-004 directed the executive agencies to work with other governmental entities, including affected tribes, and to receive and evaluate input from the public.

Executive Order 2008-004 further directed the executive agencies to report their findings to the Office of the Governor and to the Secretary of EMNRD by June 24, 2008.

In response to Executive Order 2008-004, participating executive agencies hosted an open house on March 29, 2008 at the Santa Fe Community College. The agencies provided notice of the event through local newspapers and posted notice of the meeting on EMNRD's website. [OCD Ex. 1, p. 5]

Members of the public attending the open house could visit with each agency and provide comments, ask questions, and obtain general information about the agency. The following agencies staffed the open house: EMNRD, the Office of the State Engineer, the New Mexico Environment Department, the Department of Game and Fish, the Department of Cultural Affairs, the Department of Indian Affairs, the Department of Tourism, the Department of Health, and the Department of Agriculture. [OCD Ex. 1, p. 5]

Public comments were accepted until April 17, 2008. A total of 671 written comments were received by the participating agencies, including 126 written comments directed specifically to EMNRD or the Division. [OCD Ex. 1, p.5]

On June 24, 2008 the participating agencies submitted the Report on the Galisteo Basin, which includes individual reports and recommendations from the nine agencies that participated in the open house. The report highlighted areas of concern, including but not limited to the impact of oil and gas development activities on water resources, human health and the environment, the discovered and undiscovered archaeological site in the area, tribal cultural practices in the Galisteo Basin, and other land uses including residential uses, ranching and tourism. [OCD Ex. 1, pp. 5-6]

On July 14, 2008, Governor Richardson issued Executive Order 2008-038, "Extending the Moratorium on New Oil and Gas Drilling in Santa Fe County and the Galisteo Basin." [OCD Ex. 1, p. 6; OCD Ex. 21]

Executive Order 2008-038 extended the moratorium by six additional months, until January 24, 2009, and directed the executive agencies that participated in preparing the Report on the Galisteo Basin to take specific actions.

Executive Order 2008-038 directed the Division as follows:

"The Oil Conservation Division shall investigate and begin drafting, if appropriate, rules, regulations and statutory changes, including but not limited to permitting by area, the allowance of notice and public input for all application for permits

to drill, and the adoption of special rules concerning the Galisteo Basin, all in an effort to protect this fragile and ecologically sensitive area.”

Pursuant to this directive, the Division developed proposed Sections 9 and 10.

Authority of the Commission

The Commission has concurrent power with the Division under the Oil and Gas Act to make and enforce rules to prevent waste and protect correlative rights. See NMSA 1978, Section 70-2-11.

Additional powers of the Division, and by extension the Commission, are set out in NMSA 1978, Section 70-2-12, “Enumeration of Powers.”

Section 70-2-12 contains powers specifically directed towards protecting the environment, including the authority to make rules

- “to regulate the disposition of water produced or used in connection with the drilling for or producing of oil or gas .... in a manner that will afford reasonable protection against contamination of fresh water supplies designated by the state engineer,” NMSA 1978, Section 70-2-12(B)(15);
- to “regulate the disposition of nondomestic wastes resulting from the exploration, development, production or storage of crude oil or natural gas to protect public health and the environment,” NMSA 1978, Section 70-2-12(B)(21); and
- to “regulate the disposition of nondomestic wastes resulting from the oil field service industry, the transportation of crude oil or natural gas, the treatment of natural gas or the refinement of crude oil to protect public health and the environment, including administering the Water Quality Act as provided in Subsection E of Section 74-6-4 NMSA 1978,” NMSA 1978, Section 70-2-12(B)(21).

Section 70-2-12 also contains directives that further both the goals of protecting public health and the environment and the goals of preventing waste and protecting correlative rights, including but not limited to the authority to make rules

- “to prevent crude petroleum oil, natural gas or water from escaping from strata in which it is found into other strata” (NMSA 1978, Section 70-2-12(B)(2));
- “to prevent the drowning by water of any stratum or part thereof capable of producing oil or gas or both in paying quantities and to prevent the premature and irregular encroachment of water or any other kind of water encroachment that reduces or tends to reduce the total ultimate recovery of crude petroleum oil or gas or both oil and gas from any pool” (NMSA 1978, Section 70-2-12(B)(4));
- “to prevent fires” (NMSA 1978, Section 70-2-12(B)(5));



- “to prevent ‘blowups’ and ‘caving’ in the sense that the conditions indicated by such terms are generally understood in the oil and gas business” (NMSA 1978, Section 70-2-12(B)(6));
- “to require wells to be drilled, operated and produced in such manner as to prevent injury to neighboring leases or properties” (NMSA 1978, Section 70-2-12(B)(7)); and
- “to regulate the methods and devices employed for storage in this state of oil or natural gas or any product of either...” (NMSA 1978, Section 70-2-12(B)(13)).

Section 70-2-12 also gives the Division, and by extension the Commission, the powers necessary to carry out its duties to prevent waste, protect correlative rights, and protect public health and the environment, including “the authority to collect data; to make investigations and inspections; to examine properties, leases, papers, books and records; to examine, check, test and gauge oil and gas wells, tanks, plants, refineries and all means and modes of transportation and equipment; to hold hearings; to provide for the keeping or records and the making of reports and for the checking of the accuracy of the records and reports...” NMSA 1978, Section 70-2-12(A). In addition, Section 70-2-12 gives the Division, and by extension the Commission, the specific power to “require reports showing locations of all oil or gas wells and for the filing of logs and drilling records or reports.” NMSA 1978, Section 70-2-12(B)(3).

NMSA 1978, Section 18-6-8.1 of the Cultural Properties Act provides, in relevant part, that “[t]he head of any state agency or department having direct or indirect jurisdiction over any land or structure modification which may affect a registered cultural property shall afford the state historic preservation officer a reasonable and timely opportunity to participate in planning such undertaking so as to preserve and protect, and to avoid or minimize adverse effects on, registered cultural properties.”

Rules adopted by the Cultural Properties Review Committee pursuant to Section 18-6-8.1 define “indirect jurisdiction” to include “the issuance of any authorization [or] permit...by any state agency, entity, board or commission for any land or structure modification on federal, state or private lands.” Subsection E of 4.10.7.7 NMAC. The Attorney General has interpreted Section 18-6-8.1 to apply to state conduct that may affect registered cultural properties on private property. Op. Atty. Gen. 87-64.

#### Overview of Proposed Rules

The Division presented testimony on the following points to support the adoption of special provisions for Santa Fe County and the Galisteo Basin:

- Water resources in the Galisteo Basin are limited [Tr. I, pp. 108, 151-152];
- The existing population in the Galisteo Basin is dependent on ground water as the sole source of drinking water [Tr. I, p. 149];
- The geology in the Galisteo Basin is complex and highly fractured [Tr. I, pp. 102, 106, 150-151];

- Hydraulic connections in the Galisteo Basin are highly variable [Tr. I, pp. 103 and 147];
- According to the Office of the State Engineer, the Division must presume that ground water encountered in the Galisteo Basin is fresh, although actual water quality varies significantly and will require site-specific evaluations [Tr. I, p. 100, 121-122];
- Ground water in the Galisteo Basin is vulnerable to contamination from the surface because the ground water is recharged from surface waters passing through very porous, permeable alluvial materials to a shallow aquifer [Tr. I, pp. 109-110];
- There is currently little oil and gas development in Santa Fe County and the Galisteo Basin, and no infrastructure in place to support oil and gas development [OCD Ex. 1, p.2];
- Santa Fe County and the Galisteo Basin already support varied uses, including residential and business uses [Tr. I, p. 68]; and
- The Galisteo Basin and the surrounding area is the location of many well preserved prehistoric and historic archaeological resources of Native American and Spanish colonial cultures, including the largest ruins of Pueblo Indian settlements in the United States, spectacular examples of Native American rock art, and ruins of Spanish colonial settlements. [OCD Ex. 23; Tr. I, pp. 199-200]

Because water resources in the Galisteo Basin are limited, because the existing population is dependent on ground water as the sole source of drinking water, because information on water resources in the basin is limited, because the geology in the basin is complex and highly fractured, because hydraulic connections in the basin are highly variable, because the Division must presume that ground water encountered in the basin is fresh, because evaluation of the actual water quality will require site-specific evaluations, and because ground water in the basin is vulnerable to contamination from the surface, the Commission finds that it is necessary for the Division to acquire site-specific information in order to regulate oil and gas activities in a manner that will protect water, public health and the environment.

Because Santa Fe County and the Galisteo Basin already support varied uses, because the Galisteo Basin is the location of many prehistoric and historic archaeological resources, and because oil and gas drilling and the development of oil and gas infrastructure to support oil and gas development will need to co-exist with existing residential, business and cultural uses and existing archaeological sites, the Commission finds that the Division will need to acquire information about surface uses and archaeological sites in order to properly regulate oil and gas development in Santa Fe County and the Galisteo Basin.

Existing rules do not provide a mechanism for the Division to evaluate the impact of oil and gas development by area, or to consider the cumulative impacts of oil and gas development on an area. Instead, the Division receives applications for individual permits to drill, and evaluates them in isolation. [Tr. I, pp. 37, 66-67]

To protect ground water, to regulate oil and gas development in an area already supporting varied uses, and to protect archaeological sites, the Commission finds that it is necessary for the Division to evaluate an operator's plan for the area to be developed, including not only the proposed wells but the related facilities and infrastructure.

Existing rules do not provide for public notice of drilling activities. Notice is provided only to other potentially affected operators and, in limited circumstances, to local governments. [Tr. I, p. 3] Notice is not provided to surface owners, the general public, potentially interested state agencies, or Indian nations, tribes or pueblos. NMSA 1978 Section 18-6-8.1 requires that state historic preservation officer participate in planning any undertakings that may affect a registered cultural property. Executive Order No. 2005-003 and the State of New Mexico Executive Department Policy Regarding Tribal Consultation on the Protection of Sacred Places and Repatriation strongly encourage consultation with tribes, pueblos and nations regarding state actions that may impact cultural properties. [OCD Exs. 32 and 33]

To protect ground water, to regulate oil and gas development in an area already supporting varied uses, and to protect archaeological sites, the Commission finds that it is necessary that oil and gas development be conducted in a manner that allows notice to and input from surface owners, the general public, potentially interested state agencies, and Indian nations, tribes and pueblos.

Section 9 requires operators to obtain Division approval for an exploration and development plan prior to drilling, re-entering or deepening a well located in Santa Fe County or the Galisteo Basin.

The application process set out in Section 9 requires the operator to describe its plan for development: identifying the area it plans to develop, the facilities it plans for the area, and its plans for development if the area proves productive. The operator must also provide available information on surface structures, hydrology and geology so the Division can evaluate the plan. The process provides for public notice and participation at each significant stage, with a public hearing required on the initial application. The Division can approve the plan only if the operator demonstrates that the plan meets the Division's statutory mandates: the protection of water, human health and the environment, balanced with the prevention of waste and the protection of correlative rights. The Division may impose conditions on the plan so that the plan meets those statutory mandates. Finally, Section 9 sets out a process for replacing the exploration and development plan process with a special pool order once enough is known about the area and the impact of oil and gas development on the area to allow appropriate regulation and review through the special pool order process.

Section 10 sets out additional requirements for applications for permits to drill, re-enter or deepen wells subject to an exploration and development plan. Subsection A provides that the permit application itself will need to provide additional information useful to the Division in evaluating the application. Subsection B sets out conditions that

will be imposed as part of the permit unless the operator has demonstrated, as part of its exploration and development plan, that the conditions are not necessary.

The Commission should adopt proposed Sections 9 and 10, with the modifications proposed by the Division and additional modifications discussed below.

Discussion of Proposed Section 9

Subsection A, Applicability. Subsection A of Section 9 provides that the operator must obtain Division approval for an exploration and development plan prior to drilling, re-entering or deepening a well located in Santa Fe County or the Galisteo Basin, and defines those parts of San Miguel and Sandoval Counties that are included in the Galisteo Basin.

Most of the evidence presented by the Division regarding water resources and archaeological sites focused on the Galisteo Basin, and not on the remainder of Santa Fe County. However, the Division presented evidence that archaeological sites exist in the remainder of Santa Fe County, public concern extended beyond the Galisteo Basin to the remainder of Santa Fe County, and that Santa Fe County had passed oil and gas ordinances that will apply to the entire county.

The Commission concludes that it should adopt Subsection A of Section 9, so the provisions will apply to all of Santa Fe County and to those portions of San Miguel and Sandoval Counties included in the Galisteo Basin.

Subsection B, Application for Exploration and Development Plan. Subsection B of Section 9 sets out what must be included in an application for an exploration and development plan.

Division witness Brad Jones testified that much of the information the operator must provide as part of the application is information that would be required under other permitting rules; the difference is that Section 9 requires the operator to provide the information up front, before beginning development, allowing the Division to review the entire plan. [Tr. I, pp. 169-170]

Paragraph 2 of Subsection B of Section 9 requires the operator to provide "a legal description of the area to be covered by the plan including at a minimum the operator's best estimate of the productive area." The Division presented testimony that the intent was to include within the area to be covered by the plan any surface area that would be disturbed by oil and gas development. This would include not only wells but related facilities including roads that the operator would need to build. Any such disturbance should be evaluated in light of its impact on water, and the potential disturbance to archaeological sites. [See discussion at Tr. I, pp. 224-225, 228-229; Tr. III, pp. 15, 17-18]

To prevent operators from drawing a line around only the area of surface disturbance, the proposed rule requires the operator to include "at a minimum the operator's best estimate of the productive area." The Division's witness suggested that the best estimate of the productive area should be at least as large as the appropriate spacing areas for the proposed wells. [See discussion at Tr. I, p. 221] The Commission questioned the use of the phrase "best estimate," which may suggest that the operator is required to provide the most optimistic estimate of the productive area. [Tr. III, pp. 88, 134-135] Division witnesses explained that an area including the area subject to surface disturbance and the appropriate spacing areas should be sufficient.

To provide operators with better notice of the area that must be included in a proposed exploration and development plan, the Commission modifies Paragraph 2 of Subsection B of Section 9 as follows: "a legal description of the area to be covered by the plan including at a minimum the area subject to surface disturbance by the wells and related facilities the operator proposes and the operator's best good faith estimate of the productive area, which in no case may be smaller than the applicable spacing unit or units for the proposed well or wells."

Paragraph 5 of Subsection B requires the operator to provide maps showing the locations of existing features and the operator's proposed development. Division witness Brad Jones testified that the maps would assist in determining the impact of the proposed development. [See Tr. I, pp. 163-167] Division witness William Jones testified that operators commonly have plans of development, particularly when evaluating whether to drill in a wildcat area. [Tr. III, pp. 208-209; Tr. II, pp. 148-150] Division witness Glenn von Gonten testified that operators need to consider infrastructure necessary to support their development plan. [Tr. II, pp. 189-191]

Subparagraph (a) of Paragraph 5 of Subsection B of Section 9 requires the operator to provide a map of the area to be covered by the plan and one half mile beyond that boundary, plotting "state, federal, private or tribal surface ownership, including for private lands the property boundaries and the name of the property owner at time of application." IPANM raised concerns regarding what would be required to identify ownership of land grants. [Tr. I, p. 264] Operators are required to identify and contact private land owners in a number of different contexts, including obtaining access rights and complying with the Surface Owner's Protection Act. Statutes are already in place governing sufficiency of notice to different types of owners, such as corporations, partnerships, limited liability companies and joint tenants. There is no need to repeat that information in this rule.

With regard to land grants, the Commission takes administrative notice of New Mexico's statutes governing land grants, NMSA 1978, Sections 49-1-1 through 49-10-6, which vest management and control of land grants in a board of trustees, with the power to control, care for and manage the land grant and take all appropriate actions with regard to that land grant including actions regarding land use. See NMSA 1978, Section 49-1-3.

The Commission finds no need to modify Subparagraph (a) of Paragraph 5 of Subsection B of Section 9 to set out the process for identifying surface owners based on the nature of the form of surface ownership.

Subparagraph (g) of Paragraph 5 of Subsection B of Section 9 requires the operator to provide a map showing wellhead protection areas. Because by definition a wellhead protection area does not include areas around water wells drilled after an existing oil or gas waste storage, treatment or disposal site it established (Paragraph 9 of Subsection W of 19.15.2.7 NMAC), the Commission modifies the language in Subparagraph (g) to include all water wells, in addition to wellhead protection areas. [Tr. III, pp. 90-91]

Subparagraph (h) of Paragraph 5 of Subsection B of Section 9 requires the operator to provide a map of the area to be covered by the plan and one half mile beyond that boundary, plotting "all existing oil and gas wells." According to the testimony of the Division witnesses, the intent was to require the operator to plot all existing oil and gas wells including inactive wells and plugged wells. [Tr. I, p. 166; Tr. II, p. 93; Tr. III, p. 91] To clarify the provision, the Commission adopts the following modification: "all existing oil and gas wells regardless of status, including inactive wells, wells that have been plugged, and wells that have been plugged and released."

Paragraph 6 of Subsection B requires the operator to provide a hydrogeologic and site report. Mr. von Gonten testified that the reports required by the proposed rule are similar to the reports required by the Division during any sort of environmental investigation. [Tr. II, p. 212]

Paragraph 7 of Subsection B requires the operator to provide its proposed plans for monitor wells, drilling programs, mud-logging programs, addressing waste, minimizing pad size and developing the area if it proves productive. Paragraph 8 of Subsection B requires the operator to provide a written contingency plan for all releases. Division witness Glenn von Gonten testified that requiring the operator to provide these plans would require the operator to address operations holistically, and to plan in advance to address certain foreseeable events. [See discussion at Tr. II, pp. 173-175, 178, 190-192. See also Tr. III, pp. 23, 211-213] In addition, Mr. von Gonten testified that plans designed to minimize or prevent spills are economical for operators. [Tr. II, pp. 191-192]

IPANM and Approach questioned whether the proposed provisions gave the operator sufficient guidance as to what would be required in the plans. Division witness Glenn von Gonten explained that the content of the plans would depend on the operator's proposed exploration and development plan. The Division would be examining the proposed exploration and development plan as a whole to determine if it prevented waste, protected correlative rights, protected water and protected human health and the environment. [See discussion at Tr. II, pp. 215-218]

Paragraph 9 of Subsection B provides that the operator must provide information on cultural resources listed in or eligible for listing in either the national register of

historic places or the state register of cultural properties, known cemeteries and unmarked human burials located in the area covered by the proposed plan or within one half mile of the boundary of that area. In addition, the operator must provide the information required by 4.10.7.9 NMAC. That regulation requires the Division to provide information to the state historic preservation officer when any land or structural modification may affect a registered cultural property. Information on cultural resources, known cemeteries and unmarked human burials is necessary so that oil and gas development can be planned in such a manner to avoid violating existing laws protecting such sites. See, for example, NMSA 1978, Sections 18-6-8.1, 18-6-11.2, and 30-12-12.

Subsection C, Amendments to Exploration and Development Plans. An operator must obtain an approved amendment to its exploration and development plan prior to expanding the area covered by the plan, increasing the number of changing the locations of proposed wells or related facilities, or changing the terms of the proposed plan. The proposed amendment is put out for public notice, and the public may request a hearing. But the decision whether to conduct a hearing rests with the Division. The Commission received comments requesting that all amendment applications be set for hearing, or that all amendment applications be set for hearing upon request.

According to testimony from the Division witnesses, operators would be able to draft plans broadly, and propose alternatives, so that they could minimize the number of amendments they would need to file. However, because the proposed rule requires amendments to change the area covered by the plan, the location of wells and facilities, and the terms of the plan, it is likely that operators will have to file for amendments.

Rather than require every amendment application to go through the hearing process, the Commission concludes that the Division shall have discretion to determine which applications for amendment require public hearing.

Subsection D, Renewals of Exploration and Development Plans. Subsection D sets out the requirements for an application to renew an exploration and development plan. Plans may be approved for a period not to exceed five years (Paragraph 1 of Subsection J of Section 9), and the burden is on the operator to renew the plan. Subsection A of Section 9. The application to renew the plan requires the operator to update the information provided in the original application.

The Commission questioned whether renewals were necessary if the operator had not taken any action under its approved plan, or had not changed its operations in the preceding five years. Division witness Brad Jones testified that the renewal process would still be useful because it would require the operator to update information, such as providing information on changes to surface structures, changes to ownership, and changes to contact information. [Tr. I, pp. 190-191]

Subsection E, Replacement of an Exploration and Development Plan with a Special Pool Order. Section 9 provides that an approved exploration and development plans may be replaced by a special pool order after the operator has operated wells under

the plan for at least five years, and if the Division determines that a special pool order can adequately meet the Division's statutory mandates. IPANM and Approach questioned the process for replacing a plan with a special pool order. The Commission determines that Section 9 should be clarified to as follows.

The focus of an exploration and development plan is to gather information about a specific area. The Division should allow a special pool order to replace an exploration and development plan only when the Division has enough information about the area covered by the plan to be confident that the area can be adequately regulated by a special pool order. [See Tr. II, pp. 198 and 239] Consequently, the area to be covered by the special pool order should not extend past the boundaries of the exploration and development plan. [See Tr. I, pp. 197-198, and 241] The pool designated by the special pool order should not be expanded past the boundaries of the exploration and development plan through amendment, nomenclature, or operation of the pool rules.

After a special pool order designates a pool, operators should be allowed to drill wells and conduct oil and gas operations within the horizontal and vertical limits of that pool without obtaining an exploration and development plan or operating under the processes set out in Section 9.

However, wells drilled outside the area originally covered by the exploration and development plan will be in an area that has not been examined by the Division through the processes set out in Section 9. Therefore, those wells will require an exploration and development plan.

Section 9 does not replace existing rules and practices governing the creation, expansion and contraction of pools except to recognize that the Division may create a special pool order to replace an exploration and development plan. Tr. III, p. 124. That special pool order will designate a specific pool and may impose conditions to protect fresh water, human health and the environment.

New Paragraphs 2, 3, 4 and 5 clarify the role of special pool orders in replacing an exploration and development plan.

Subsection F, Legal Notice. Paragraph 7 of Subsection F states that the legal notice shall contain instructions for viewing "the complete application." The Commission finds that the word "complete" should be removed. To comply with NMSA 1978, Section 18-6-11.1 the Division must keep confidential all information disclosing the location of archaeological sites. That information will need to be redacted from the application before the application is released to the public. [See discussion at Tr. I, p. 205]

To provide notice consistent with the notice required under rules adopted by the Water Quality Control Commission, the Commission modifies the language in Subsection F to require the notice to be written in English and Spanish.



Subsection G, Administrative Completeness. Again, to comply with NMSA 1978, Section 18-6-11.1 Subparagraph E of Paragraph 2 of Subsection G should be changed to reflect that the Division must redact confidential information on the location of archaeological sites before posting the application on the Division's website.

A Division witness expressed concern about the term "administrative completeness," and whether there was confusion about the review process set out in Section 9. [Tr. III, pp. 21-23]

Some permitting rules provide that the agency conducts an initial review of the application for "administrative completeness," and then issues a "tentative decision" concerning the application. The "tentative decision" includes proposed conditions for approval or reasons for disapproval. After public input the matter may be set for hearing, or the agency may proceed to issue its final decision. See, for example, 19.15.36.9 NMAC, regarding the process for approving permits for surface waste management facilities.

Section 9 follows a different process. It provides that all initial applications will be set for hearing, and that information will be gathered as part of the hearing process. Because information is likely to come to light during the hearing process, Section 9 does not require the Division to make a "tentative decision" on the application prior to hearing, and defend that decision at the hearing. Such a "tentative decision" would be premature. Instead, the burden is on the operator to show at the hearing that its proposed plan will meet the Division's statutory mandates. The Division's decision to grant or deny the application will be based on all the information presented at the hearing.

To make clear that the process set out in Section 9 is not the "administratively complete/tentative decision" process set out in other rule, the Commission modifies Subsections G and H to remove references to administrative completeness and substitute language referring to the completeness of the application.

Subsection H, Public Notice. Subsection H sets out the requirements for public notice. The requirements apply to the initial application and to amendments, renewals and replacements, thereby involving the public in each significant stage of the process.

To increase the effectiveness of the public notice, and to make the notice provisions in Section 9 consistent with the notice provisions adopted by the Water Quality Control Commission, the Commission modifies the language in Subsection H to require the advertisement to be in English and Spanish, and to require that the notice be published in the form of a display advertisement. [Tr. III, p. 97]

To ensure that notice reaches the appropriate persons, the Commission modifies the language in Subsection F to require notice to the governor, chairperson, or president of a tribe, pueblo or nation located in or located partially in New Mexico. [Tr. III, p. 97]

Subsection I, Public Hearings. Public hearings are mandatory on an initial application, and upon request of the operator if the Division acts administratively to deny an application to amend, renew or replace a plan or acts administratively to approve an application to amend, renew or replace a plan with conditions or terms. The Division may otherwise set an application to amend, renew or replace a plan for public hearing, but is not required to do so. The Commission received public comments in favor of requiring public hearings on all amendments or replacements, or upon public request.

Section 9 requires that an approved plan be renewed at least every five years. Plans must be amended to expand the area covered by the plan, increase the number or change the locations of proposed wells or related facilities, or change the terms of the plan. Division witnesses testified that an operator could reduce the need for filing amendments by proposing plans that accurately described the operator's future intentions, and by including alternatives in the plan. However, it is likely that operators will need to file applications for amendments and any plan, no matter how complete, will need to be reviewed every five years. The Commission determines that requiring public hearings on initial applications and allowing the Division to determine if a hearing is needed on subsequent approvals provides adequate review and reduces the possibility of holding unnecessary hearings.

Subsection J, Plan Approvals, Conditions, Denials, Amendments, Revocations, Renewals and Transfers. Because Subsection J applies to the replacement of an exploration and development plan by a special pool order, the Commission adds "and Replacements" to the title of the Subsection. [Tr. III, p. 162]

Paragraph 2 of Subsection J sets out the standard of review for approving applications under Section 9. It provides that the Division may approve an application for a plan, or an application to amend, renew or replace a plan if the Division makes certain determinations. The Division must find that the operator is in compliance with Subsection A of 19.15.5.9 NMAC, that the operator has provided the information required by Section 9 and that the operator has met the notice requirements of Section 9. The Division must also find that approval of the application will meet the Division's statutory mandates: that "approval of the application will prevent waste, protect correlative rights, protect fresh water, and protect human health and the environment."

This standard recognizes the Division's environmental mandates to protect fresh water, and protect human health and the environment, but also recognizes that the Division must prevent waste and protect correlative rights. To clarify that it is the burden of the operator to prove that approval of the application would meet the Division's statutory mandates, the Commission modifies the language in Paragraph 2 to place the burden on the operator expressly. [See Tr. III, p. 101]

#### Discussion of Proposed Section 10

Subsection B sets out additional requirements for applications for permits to drill, re-enter or deepen wells subject to an exploration and development plan.

Subsection A. Subsection A sets out additional requirements for the application. It must be filed with the operator's application for a permit under 19.15.17 NMAC (the "pit rule") so the permit applications can be evaluated together, the operator must provide global positioning system coordinates to identify the location of a well to be drilled in an un-surveyed area, and the application must contain any additional information required by the operator's exploration and development plan.

Subsection B. Subsection B provides that permits to drill, deepen or re-enter wells subject to exploration and development plans shall be subject to certain conditions, unless the operator demonstrates, through the exploration and development plan approval process, that the conditions are not necessary. Currently, the Division may impose conditions on permits to drill, deepen or re-enter wells. See Subsection B of 19.15.14.10 NMAC. [Tr. II, p. 141] Usually, decisions on special conditions are made by the district geologist. [Tr. II, p. 141] Santa Fe County and most of the Galisteo Basin falls within Division District 4, a district presently staffed by one individual who is not a geologist. [Tr. II, pp. 141-142] Subsection B of Section 10 provides default provisions for Santa Fe County and the Galisteo Basin designed to protect fresh water in an area where there is little available data on water resources, and puts the operator on notice of the conditions the Division will apply.

Paragraph 1 of Subsection B requires the use of closed loop systems for drilling. Division witness Brad Jones testified that a closed loop system uses above-ground steel tanks for managing drilling or workover fluids and does not use below-grade tanks or pits. Mr. Jones testified that the use of closed-loop systems will reduce the impact of surface disturbance, promote the recycling of drilling fluids (which reduces the use of clean water and allows for the reuse of such fluids at other drilling sites), and reduce the volume of solid and semi-solid drill cuttings and mud which in turn will reduce the risk of a potential release and result in reduced disposal costs for the operator. [OCD Ex. 2, p. 30-. Tr. I, p. 186. See also Tr. III, pp. 196-197]

Paragraph 2 of Subsection B prohibits the operator from using the on-site closure methods identified in Subsection F of 19.15.17.13 NMAC: in-place burial and on-site trench burial. Division witness Brad Jones testified that this prohibition is designed to establish an extra level of protection for ground water, due to the absence of available information and data pertaining to the region. [OCD Ex. 2, p. 30]

Paragraph 3 of Subsection B requires the operator to run logs from total depth to surface that will determine porosity and water saturation. Division witness William Jones testified that the logs will help detect all waters, water bearing sands, the lithology or rock types, and thickness. [OCD Ex. 3, p. 3] Mr. Jones testified that requiring the logs to be run from the bottom to the top in the wells will help determine the location and extent of fresh water intervals, which can then be protected. The requirement to run a well-designed and thorough electric logging suite will ensure the reservoir and reservoir fluids are understood and will help prevent waste and protect potential sources of drinking water. [OCD Ex. 3, p. 4]

Paragraph 4 of Subsection B requires that a mud-logger must be on site during drilling from surface to total depth and must submit the logs and a written report daily to the supervisor of the appropriate district office. Division witness William Jones testified that mud logging is required to collect geological and drilling data which can be used to detect the presence of fresh water and to determine where to set protective casing. [OCD Ex. 3, p. 4; Tr. II, p. 30] Mr. Jones used as an example the Black Ferrell No. 1. If the operator had been required to run mud logs and logs to determine porosity and water saturation, then the operator and the Division would have had information on any potential high porosity, high yielding, protectable waters. Without those logs, Mr. Jones was unable to determine whether the operator had encountered water while drilling the well. [Tr. II, pp. 37-38]

Paragraph 5 of Subsection B requires the operator to isolate all fresh water zones and aquifers throughout their vertical extent with at least two cemented casing strings. Division witness William Jones testified that it is common practice to set two cemented casing strings through fresh water zones occurring above hydrocarbon intervals. Section 10 requires two cemented casing strings to isolate fresh water zones, no matter where the water occurs. [OCD Ex. 3, pp. 4-5; Tr. II, pp. 30-31]

Paragraph 6 of Subsection B requires the operator to circulate cement to surface on all casing strings, except that the smallest diameter casing shall have cement to at least 100 feet above the casing shoe of the next larger diameter casing. Division witness William Jones testified that the proposed rule would prevent any casing to be exposed to the formation without coverage of a cement sheath, to prevent casing corrosion and vertical migration of fluids from one formation into another, thereby preventing waste and protecting fresh water. [OCD Ex. 3, p. 5; Tr. II, pp. 31 and 130]

Paragraph 7 of Subsection B requires the operator to run cement bond logs acceptable to the Division after each casing string is cemented, and to file the logs with the appropriate district office. Division witness William Jones testified that running cement bond logs will identify not only the cement top, but also any thief zones and high or low permeability zones in the well. Cement bond logs also give a detailed, 360-degree view of the integrity of the cement job, showing whether the cement is adhering to the outside of the casing and to the formation. According to Mr. Jones, this information will add a level of protection to the well and protect potential sources of drinking water. [OCD Ex. 3, p. 5; Tr. II, pp. 32-33.] Mr. Jones used as an example the Black Ferrell No. 1. It appeared from the well file that the cement had slumped back, allowing fluids into the well. If the operator had been required to provide cement bond logs, the lack of cement integrity could have been discovered and fixed. [Tr. II, pp. 36-37]

Paragraph 8 of Subsection B requires the operator to place a well that requires gas pipeline connection on approved temporary abandonment status while awaiting pipeline connection. Division witness William Jones testified as to the need for testing mechanical integrity in inactive wells. [Tr. II, p. 34] Mr. Jones gave as an example the Black Ferrell No. 1, which was left inactive for many years. Re-entry was difficult and

the 4 ½ inch casing in the well was badly corroded. [OCD Ex. 3, p. 6; Tr. II, pp. 34-36] Mr. Jones recommended modifying the language in Paragraph 8 to specify that the operator be required to place a drillable bridge plug above any open perforations when placing the well on temporary abandonment status, in order to minimize corrosion. [OCD Ex. 3, p. 6; Tr. II, pp. 34-36 and 96] The Commission modifies the language in Paragraph 8 to require drillable bridge plugs.

### Final Conclusions

The Commission concludes that adoption of the two proposed sections, as modified, will assist the Division in carrying out its statutory mandates of protecting water, public health and the environment, while preventing waste and protecting correlative rights, and satisfy the Division's obligations under the Cultural Properties Act, in a area with competing uses, limited water resources, complex geology and many significant archaeological sites.

The Commission concludes that the requirements of the two proposed sections, as modified, are reasonable and that alternative regulatory methods would not accomplish the Division's objectives.

The Commission concludes that the two proposed sections be adopted in the form attached hereto as Exhibit A.

### IT IS THEREFORE ORDERED:

Two new sections, to be codified at 19.15.39.9 NMAC and 19.15.39.10 NMAC (or elsewhere if necessary to meet requirements of the Commission of Public Records), copy attached as Exhibit A, are hereby adopted, effective as of the date of publication in the New Mexico Register.

The staff of the Oil Conservation Division is instructed to secure prompt publication of the new sections in the New Mexico Register.

Jurisdiction of this matter is retained for entry of such further orders as may be necessary.

**19.15.39.9 [NEW] SPECIAL PROVISIONS FOR SANTA FE COUNTY AND THE GALISTEO BASIN:**

**A.** Applicability. The operator must obtain division approval for an exploration and development plan prior to drilling, re-entering or deepening a well located in Santa Fe county or the Galisteo Basin, and must operate the wells covered by the plan in accordance with the plan's requirements until the plan is specifically replaced by a special pool order. Approval of an exploration and development plan does not relieve an operator from its responsibility to obtain any permit required pursuant to the Oil and Gas Act for its activities conducted under the plan. The operator must renew an approved exploration and development plans every five years. The Galisteo Basin includes part of Santa Fe county,

- (1) the following sections in Sandoval county:
  - (a) sections 1 and 2 of township 13 north, range 6 east, NMPM;
  - (b) sections 1 through 4, 9 through 15, 22 through 26, 35 and 36 of township 14 north, range 6 east, NMPM;
  - (c) sections 10 through 30, and 32 through 36 of township 15 north, range 6 east, NMPM;
  - (d) sections 13 and 25 of township 15 north, range 5 east, NMPM; and
- (2) the following sections in San Miguel county:
  - (a) sections 4 through 9, and 16 through 21 of township 13 north, range 12 east, NMPM;
  - (b) sections 4 through 10, 13 through 24, and 27 through 33 of township 14 north, range 12 east, NMPM; and
  - (c) sections 19 and 29 through 32 of township 15 north, range 12 east, NMPM.

**B.** Application for Exploration and Development Plan. An operator applying for approval of an exploration and development plan shall file two copies of the application with the division's Santa Fe office and file a copy of the application with the appropriate division district office or offices. The application shall include:

- (1) the operator's name, address and telephone number, with an e-mail address and facsimile number if available;
- (2) a legal description of the area to be covered by the plan including at a minimum the area subject to surface disturbance by the wells or related facilities the operator proposes to install and the operator's best good-faith estimate of the productive area, which in no case may be smaller than the applicable spacing unit or units for the proposed wells;
- (3) identification of the target zone or zones;
- (4) a topographic map of the area to be covered by the proposed plan and one half mile beyond the boundary of that area;
- (5) a map or maps of the area to be covered by the proposed plan and one half mile beyond the boundary of that area plotting the following, with global positioning system coordinates to the sixth decimal point for un-surveyed areas:
  - (a) state, federal, private or tribal surface ownership, including for private lands the property boundaries and the name of the property owner at time of application;
  - (b) municipal and county boundaries;
  - (c) farms;
  - (d) all buildings and infrastructure including but not limited to highways and roads, railroads, pipelines, power lines, antennas, wind turbines, solar farms, and mines (surface and subsurface);
  - (e) watercourses, sinkholes, playas and unstable areas;
  - (f) municipal fresh water well fields covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended;
  - (g) water wells and wellhead protection areas;
  - (h) all existing oil and gas wells regardless of status, including inactive wells, wells that have been plugged, and wells that have been plugged and released; and
  - (i) the location of proposed exploratory wells and related facilities, including but not limited to tank batteries, gathering lines, waste disposal facilities, compressor stations and access roads;

(6) a hydrogeologic and site report that provides sufficient information and detail on the area's topography, soils, geology, surface hydrology and ground water hydrology to enable the division to evaluate the actual and potential effects on soils, surface water and ground water;

(7) proposed plans for

- (a) installing monitor wells to determine depth to water and saturated thickness, obtain baseline water samples and detect releases;
- (b) a drilling program describing the air drilling program or mud program to be used;
- (c) a mud-logging program, including a copy of the mud log sheet and a description of the mud-logger's daily report, which shall include at a minimum the total depth reached, the footage drilled in the preceding 24 hours, oil and gas intervals, fresh water zones, and mud parameters including mud weight, chlorides, funnel viscosity and filtrate properties;
- (d) addressing wastes generated during the drilling and production processes;
- (e) minimizing pad size and consolidating facilities; and
- (f) developing the area if the exploratory wells are productive, including the operator's best estimate of the number and location of development wells and related facilities;

(8) a written contingency plan for all releases, with no exclusion for de minimus amounts, which shall include

- (a) best management practices for the prevention and detection of releases procedures for early detection of releases;
- (b) instructions for notifying appropriate responders, with a contact list including current names, telephone numbers, e-mail addresses, facsimile numbers and addresses;
- (c) identification of applicable equipment, materials and supplies available locally or regionally to respond to releases, with advance arrangements for acquiring the equipment, materials and supplies; and
- (d) response plans based on the severity and nature of the release;

(9) if cultural resources listed in or eligible for listing in either the national register of historic places or the state register of cultural properties, known cemeteries and unmarked human burials are located in the area included in the proposed exploration and development plan or within one half mile of the area included in the plan, the information in 4.10.7.9 NMAC including a description of the effects the proposed operations may have on these sites and proposed mitigation measures;

(10) any proposed exceptions to the requirements set out in Subsection B of 19.15.39.10 NMAC and evidence that operating in accordance with the proposed exceptions will prevent waste, protect correlative rights, protect fresh water and protect human health and the environment;

(11) a proposed legal notice complying with Subsection F of 19.15.39.9 NMAC;

(12) other information that the division may require to demonstrate that the plan will prevent waste, protect correlative rights, protect fresh water, protect human health and the environment, and will assure the division that operation of the plan will be in compliance with division rules and orders; and

(13) certification by the operator that the information submitted in the application is true, accurate and complete to the best of the operator's knowledge, after reasonable inquiry.

**C. Amendments to Exploration and Development Plans.** An operator must obtain an approved amendment to its exploration and development plan prior to expanding the area covered by the plan, increasing the number or changing the locations of proposed wells or related facilities, or changing the terms of the proposed plan. An operator applying for an amendment to an exploration and development plan shall file two copies of the application with the division's Santa Fe office and file a copy of the application with the appropriate division district office or offices. The application shall:

(1) describe the proposed amendment(s);

(2) update the information provided in the original application pursuant to Subsection B of 19.15.39.9 NMAC; and

(3) provide a proposed legal notice complying with Subsection F of 19.15.39.9 NMAC.

**D. Renewals of Exploration and Development Plans.**

(1) An operator applying for renewal of its exploration and development plan shall file two copies of the application with the division's Santa Fe office and file a copy of the application with

the appropriate division district office or offices. The application shall:

(a) update the information provided pursuant to Subsection B of 19.15.39.9 NMAC; and

(b) provide a proposed legal notice complying with Subsection F of 19.15.39.9 NMAC.

(2) The operator may combine an application to renew its exploration and development plan with an application to amend the exploration and development plan.

**E. Replacement of an Exploration and Development Plan with a Special Pool Order.**

(1) An operator who has operated wells under an approved exploration and development plan for at least 5 years may apply for approval to replace the plan with a special pool order.

(2) A special pool order replacing an approved exploration and development plan shall designate a pool applying to a specific producing formation or formations within the area included in the approved exploration and development plan it replaces. The horizontal limits of the pool designated by the special pool order shall not be extended by amendment or by nomenclature proceedings, except to combine special pool orders applying to adjacent areas and the same producing formation or formations.

(3) Operators may drill wells within the horizontal and vertical limits of the pool designated by the special pool order, and conduct oil and gas operations within the horizontal limits of that pool, without obtaining an approved exploration and development plan that would otherwise be required by 19.15.39.9 NMAC. The operators must comply with the terms of the special pool order, and obtain any permits required for their operations required by law.

(4) A well drilled outside the horizontal limits of the pool designated by the special pool order shall not be classified as a development well for the pool designated by the special pool order pursuant to 19.15.15.8 NMAC and is subject to the requirements of 19.15.39.9 NMAC.

~~(2)~~(5) An operator applying for approval to replace the exploration and development plan with a special pool order shall file two copies of the application with the division's Santa Fe office and file a copy of the application with the appropriate division district office or offices. The application shall:

(a) describe provisions to be included in the special pool order to protect fresh water and to protect human health and the environment;

(b) update the information provided pursuant to Subsection B of 19.15.39.9 NMAC; and

(c) provide a proposed legal notice complying with Subsection F of 19.15.39.9 NMAC.

**F. Legal Notice.** Legal notice of an application for a proposed exploration and development plan or an application to amend, renew or replace an existing exploration and development plan shall be written in English and Spanish and shall include

(1) the operator's name, address and telephone number, and an e-mail address and facsimile number if available;

(2) a legal and a common description of the area covered by the exploration and development plan;

(3) in the case of an application for an exploration or development plan, a summary of the proposed plan including the number and location of proposed exploratory and development wells and related facilities;

(4) in the case of an application to amend an existing exploration and development plan, a summary of the existing plan and a summary of the proposed amendment;

(5) in the case of an application to renew an existing exploration and development plan, a summary of the existing plan;

(6) in the case of an application to replace an existing exploration and development plan, a summary of the provisions to be included in the special pool order to protect fresh water and protect human health and the environment;

(7) instructions for viewing the ~~complete~~ application on the division's website or at the appropriate division district office or offices;

(8) instructions for filing written public comments on the application with the division clerk in the division's Santa Fe office;

(9) instructions for requesting a public hearing on an application that has not been set for public hearing;

(10) if the application has been set for hearing, the date, time and location of the



public hearing; and

(11) instructions for being placed on a division contact list to receive notice of future applications and hearing notices related to the exploration and development plan.

**G. Administrative Application Completeness.**

(1) Within 60 days of receiving an application for an exploration and development plan or an application to amend, renew or replace an existing exploration and development plan, the division shall notify the operator in writing of its determination on whether the application is ~~administratively complete~~. An application is ~~administratively complete~~ if it contains all the information required by 19.15.39.9 NMAC.

(2) If the division determines that the application is ~~administratively complete~~, the division shall:

- (a) notify the operator in writing that the application is ~~administratively complete~~;
- (b) provide the operator with an approved legal notice;
- (c) provide the operator with a copy of the current contact list of individuals and entities requesting notice of actions related to the exploration and development plan;
- (d) distribute notice of the application with its next division or commission docket;
- (e) post the approved legal notice and the application on the division's website, with information that is confidential under NMSA 1978, Section 18-6-11.1 redacted from the application; and

(f) provide a copy of the complete application to the state historic preservation officer with a request for review and comment.

(3) If the division determines that the application is not ~~administratively complete~~, the division's written notification to the operator shall identify the deficiencies.

(4) The operator may re-submit an application to correct deficiencies, correct errors or add information. The division's receipt of a re-submittal triggers a new 30 day period for the division to notify the operator of the division's determination on ~~administrative completeness~~.

**H. Public Notice.** Within 20 days of receiving an approved legal notice and the division's determination that an application is ~~administratively complete~~, the operator shall

(1) publish the approved legal notice in English and Spanish in a display advertisement in a newspaper of general circulation in the affected county or counties;

(2) mail the approved notice by certified mail, return receipt requested, to

- (a) holders of mineral interests in the area covered by the exploration and development plan and the area within one half mile of the boundary of the exploration and development plan if they have not already agreed to participate in the plan;

- (b) surface interest owners in the area covered by the exploration and development plan and the area within one half mile of the boundary of the exploration and development plan;

- (c) the governor, chairperson, or president of each tribe, pueblo and nation located in or partially located in New Mexico;

- (d) the governments of counties and municipalities located within or partially located within the area covered by the exploration and development plan or the area within one half mile of the boundary of the exploration and development plan;

- (e) the state historic preservation officer; and

- (f) the game and fish department; and

(3) mail the approved notice of hearing by first class mail or transmit the notice of hearing by electronic mail to those individuals and entities on the division's contact list for the exploration and development plan.

**I. Public Hearings.**

(1) The division shall set all applications for approval of exploration and development plans for public hearing, with the public hearing to be set no sooner than 60 days after the operator serves public notice.

(2) The division may hold a public hearing on an application to amend, renew or replace an existing exploration and development plan.

(3) If the division acts administratively to deny an application to amend, renew or

replace an existing exploration and development plan, or acts administratively to approve an amendment, renewal or replacement of an existing exploration and development plan with conditions or terms, the operator may, within 30 days of receipt of the administrative order, file an application for hearing on the application. The division shall set the application for public hearing.

(4) If the division sets for public hearing an application to amend, renew or replace an existing exploration or development plan, the operator shall submit to the Santa Fe office of the division for approval a notice of hearing containing the information required by Subsection F of 19.15.39.9 NMAC and, at least 30 days prior to the hearing date:

(a) publish the approved notice of hearing in a newspaper of general circulation in the county or counties in the area covered by the exploration and development plan and within one half mile of the boundary of the area covered by the exploration and development plan;

(b) mail the approved notice of hearing by to those persons and entities entitled to public notice under Paragraph 2 of Subsection H of 19.15.39.9 NMAC; and

(c) mail the approved notice of hearing by first class mail or transmit the notice of hearing by electronic mail to those individuals and entities on the division's contact list for the exploration and development plan.

**J. Plan Approvals, Conditions, Denials, Amendments, Revocations, Renewals, and Transfers and Replacements.**

(1) The division may approve an exploration and development plan for a period not to exceed five years. The division may renew an exploration and development plan for additional periods not to exceed five years.

(2) The division may approve an application for an exploration and development plan or an application to amend, renew or replace an existing exploration and development plan if the operator proves ~~division determines~~ that

(a) the operator is in compliance with Subsection A of 19.15.5.9 NMAC;

(b) the application provides the information required by 19.15.39.9

NMAC;

(c) the operator has provided the notice required by 19.15.39.9 NMAC;

and

(d) approval of the application will prevent waste, protect correlative rights, protect fresh water, and protect human health and the environment.

(3) The division may impose conditions on its approval of an application for an exploration and development plan or an amendment or renewal of an exploration and development plan if the division determines that the conditions are necessary to prevent waste, protect correlative rights, protect fresh water, and protect human health and the environment.

(4) The division may include provisions in a special pool order that replaces an exploration and development plan if the division determines that the provisions are necessary to prevent waste, protect correlative rights, protect fresh water, and protect human health and the environment.

(5) After notice to the operator and hearing, the division may revoke approval of an exploration and development plan and require wells covered by that plan to be shut-in if the operator is out of compliance with the plan or is out of compliance with Subsection A of 19.15.5.9 NMAC.

(6) If an exploration and development plan expires and the operator has not filed an application to renew the plan, the operator shall shut-in the wells covered by the plan. If the operator has filed an application to renew the plan prior to its expiration, the operator may continue to operate wells covered by the plan until a final order is issued on the application for renewal.

(7) The exploration and development plan shall remain in effect until revoked, amended or replaced pursuant to 19.15.39.9 NMAC.

(8) In the event another operator becomes operator of record of wells subject to the exploration and development plan, the new operator shall be bound by the terms of the applicable approved exploration and development plan or special pool order.

**19.15.39.10 [NEW] ADDITIONAL REQUIREMENTS FOR APPLICATIONS TO DRILL, RE-ENTER OR DEEPEN WELLS SUBJECT TO AN EXPLORATION AND DEVELOPMENT PLAN:**

**A.** An application for permit to drill, re-enter or deepen a well that requires an exploration and development plan pursuant to 19.15.39.9 NMAC must include the following in addition to meeting the requirements set out in 19.15.14 NMAC:

- (1) a permit application pursuant to 19.15.17 NMAC;
- (2) global positioning system coordinates to the sixth decimal point to identify the location of a well to be drilled in an un-surveyed area; and
- (3) any additional information required by the operator's approved exploration and development plan.

**B.** Unless otherwise specified in an approved exploration and development plan, ~~a an application for~~ permit to drill, re-enter or deepen a well that requires an exploration and development plan shall be subject to the following conditions:

- (1) the operator shall drill the well using a closed loop system that uses above ground steel tanks for the management of drilling or workover fluids without using below-grade tanks or pits;
- (2) the operator shall not use the on-site closure methods identified in Subsection F of 19.15.17.13 NMAC;
- (3) the operator shall run logs from total depth to surface that will determine porosity and water saturation;
- (4) a mud-logger shall be on site during drilling from surface to total depth and shall submit the logs and a written report daily to the supervisor of the appropriate district office;
- (5) the operator shall isolate all fresh water zones and aquifers throughout their vertical extent with at least two cemented casing strings;
- (6) the operator shall circulate cement to surface on all casing strings, except that the smallest diameter casing shall have cement to at least 100 feet above the casing shoe of the next larger diameter casing;
- (7) the operator shall run cement bond logs acceptable to the division after each casing string is cemented and file the logs with the appropriate district office; and
- (8) the operator shall place of a well awaiting that requires gas pipeline connection shall place that well on approved temporary abandonment status, setting a drillable bridge plug above any open perforations, while awaiting pipeline connection.