Prospects for GAS DRILLING & HYDRAULIC FRACTURING In Virginia

Rick Parrish Wm&Mary March 28, 2015

Photo credit: R.W. Dawson
Fracking in Virginia

• Ongoing coalbed methane and shale gas fracking in SW Virginia

• Potential shale gas fracking in the Marcellus Basin in the Valley, incl GW National Forest

• Potential shale gas fracking in the Taylorsville Basin east of I-95
Virginia has about 8,300 existing gas and oil wells, all in the southwest part of the state.
- State permit required from DMME.

- Baseline groundwater monitoring required before drilling new well.

- Forced pooling allowed … maybe.
Va. Gas and Oil Act
Va. Code Ann. §45.1-361 (cont.)

- $25,000 bond required per well site.

- Well casing required to certain depth.

- Waste rock or cuttings and wastewater handling

- Some air emissions regulated by DEQ.
“No county, city, or town or other political subdivision of the Commonwealth shall impose any condition, or require any other local license, permit, fee or bond which varies from or is in addition to the requirements of this chapter. However, no provision of this chapter shall be construed to limit or supersede the jurisdiction and requirements of ... local land-use ordinances. . . .”
Va. Code Ann. § 15.2-2280
Zoning Ordinances Generally

Any locality may, by ordinance, classify the territory under its jurisdiction or any substantial portion thereof into districts of such number, shape and size as it may deem best suited to carry out the purposes of this article, and in each district it may regulate, restrict, permit, prohibit, and determine the following:

1. The use of land, buildings, structures and other premises for agricultural, business, industrial, residential, flood plain and other specific uses; . . .

4. The excavation or mining of soil or other natural resources.
LOCAL LAND-USE AUTHORITY

• Localities have the full scope of their delegated land-use authority to prohibit or regulate gas and oil development. See, e.g., Va. Code Ann. § 15.2-2280.

• Localities can impose additional requirements not contained in the Gas and Oil Act that do not conflict with the Act’s requirements. See *Ticonderoga Farms, Inc. v. County of Loudoun*, 409 S.E.2d 446, 449 (Va. 1991).

• Examples:
  a) location restrictions, setback requirements, noise requirements, traffic restrictions, hours of operation
  c) measures to protect water quality, liner requirements for wastewater pits
DMME Advisory Committee

• Comprehensive regulatory review completed late 2013
• New RAP constituted spring 2014
• 5 meetings held; 6th possible
• Recommendations to DMME include:
  ─ Disclose all fracking fluid ingredients;
  ─ Expand area for predrill groundwater monitoring;
  ─ Require local approval before permit issued.
More than 86,000 acres leased since 2010 in five counties
VA CODE 62.1-195.1
Chesapeake Bay: Drilling for oil or gas prohibited

A. Notwithstanding any other law, a person shall not drill for oil or gas in the waters of the Chesapeake Bay or any of its tributaries. In Tidewater Virginia, as defined in § 62.1-44.15:68, a person shall not drill for oil or gas in, whichever is the greater distance, as measured landward of the shoreline:

1. Those Chesapeake Bay Preservation Areas which a local government designates as "Resource Protection Areas" and incorporates into its local comprehensive plan. "Resource Protection Areas" shall be defined according to the criteria developed by the State Water Control Board pursuant to § 62.1-44.15:72; or

2. Five hundred feet from the shoreline of the waters of the Chesapeake Bay or any of its tributaries.
B. In the event that any person desires to drill for oil or gas in any area of Tidewater Virginia where drilling is not prohibited by the provisions of subsection A, he shall submit to the Department of Mines, Minerals and Energy as part of his application for permit to drill an **environmental impact assessment**.

((DEQ regulations detailing the content of these EIAs are contained at 9 VAC 15-20.))
F. A person may drill an exploratory well or a gas well in any area of Tidewater Virginia where drilling is not prohibited by the provisions of subsection A only if:

1. For directional drilling, the person has the permission of the owners of all lands to be directionally drilled into.

(compare to “forced pooling” allowed in rest of Virginia under Gas & Oil Act)
Comprehensive State Study of Drilling for Oil in Tidewater

- Environmental risks and safeguards
- Transportation issues
- State-of-the-art oil production technology
- Economic impacts
- Regulatory initiatives
- Operations standards
- Other matters related to the production of oil in the region
H. In the event that exploration activities in Tidewater Virginia result in a finding by the Director of the Department of Mines, Minerals and Energy that production of commercially recoverable quantities of oil is likely and imminent, the Director of the Department of Mines, Minerals and Energy shall notify the Secretary of Commerce and Trade and the Secretary of Natural Resources.

At that time, the Secretaries shall develop a joint report to the Governor and the General Assembly assessing the environmental risks and safeguards; transportation issues; state-of-the-art oil production well technology; economic impacts; regulatory initiatives; operational standards; and other matters related to the production of oil in the region.

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No permits for oil production wells shall be issued until

(i) the Governor has had an opportunity to review the report and make recommendations, in the public interest, for legislative and regulatory changes,

(ii) the General Assembly, during the next upcoming regular session, has acted on the Governor's recommendations or on its own initiatives, and

(iii) any resulting legislation has become effective.

The report by the Secretaries and the Governor's recommendations shall be completed within 18 months of the findings of the Director of the Department of Mines, Minerals and Energy.
Resolution #14-017

A RESOLUTION OF THE BOARD OF SUPERVISORS OF
ESSEX COUNTY, VIRGINIA

WHEREAS, Essex County overlies a portion of the Taylorsville basin, an ancient geologic formation that is believed to contain oil- and natural gas-rich shale and access to this oil and natural gas will likely involve horizontal drilling and hydraulic fracturing technology;

WHEREAS, industrial oil and gas development, including horizontal drilling and hydraulic fracturing, has never taken place in the Tidewater region of Virginia and the risks and impacts to the natural resources and the communities of Essex County are not well-understood;

WHEREAS, Va. Code Ann. § 62.1-195.1, subsection H, requires that the Secretary of Commerce and Trade and the Secretary of Natural Resources prepare a “joint report to the Governor and the General Assembly assessing the environmental risks and safeguards; transportation issues; state-of-the-art oil production well technology; economic impacts; regulatory initiatives; operational standards; and other matters related to the production of oil” in the Tidewater region upon a finding “that production of commercially recoverable quantities of oil is likely and imminent” in the region;

WHEREAS, Shore Exploration & Production Corporation has secured more than 84,000 acres of oil and gas leases on the Northern Neck and Middle Peninsula, including more than 12,300 acres of leases in Essex County, and recently announced that it expects to start drilling for oil and natural gas in the Taylorsville basin in the next twelve to eighteen months; and

WHEREAS, the joint report described in Va. Code Ann. § 62.1-195.1 will be a critical and essential tool for Essex County and other localities in Tidewater to understand the risks and impacts of industrial oil and gas development in the Taylorsville basin.

NOW, THEREFORE, be it resolved, the Essex County Board of Supervisors requests that the Governor, the Secretary of Commerce and Trade, and the Secretary of Natural Resources complete the joint report and recommendations on matters related to the production of oil and gas in the Tidewater region, as described in Va. Code Ann. § 62.1-195.1, subsection H, prior to approving any state permit for exploratory or production oil or gas wells in Essex County.

ADOPTED: This 11th day of March, 2014

CERTIFICATION OF ADOPTION OF RESOLUTION

The undersigned Clerk of the Board of Supervisors of the County of Essex, Virginia hereby certifies that the Resolution set forth above was duly adopted during an open meeting on March 11, 2014, by a majority of the members of the Board of Supervisors at a regular meeting with the following votes:

"WHEREAS the joint report described in Va. Code Ann. § 62.1-195.1 will be a critical and essential tool for Essex County and other localities in Tidewater to understand the risks and impacts of industrial oil and gas development in the Taylorsville basin."

-Resolution No. 14-017, Essex County Board of Supervisors
Memorandum of Agreement

Outlines process for reviewing environmental impact assessment submitted with drilling permit applications. Includes public participation.

Adds: DEQ and DMME will address cumulative environmental impacts from multiple oil or gas drilling permits to ensure coordinated review.

Related Issues

• Pipelines – gathering, transport

• Export –
  - Generally
  - Cove Point

• Power production
  - Coal vs. natural gas vs. nuclear
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