Prospects for
GAS DRILLING
&
HYDRAULIC FRACTURING
In Virginia

Photo credit: R.W. Dawson
Figure 91. Natural gas production by source, 1990-2040 (trillion cubic feet)

History | 2011 | Projections
---|---|---
1990 | | 2040
2000 | | 
2010 | | 
2020 | | 
2030 | | 
2040 | | 

- Shale gas
- Tight gas
- Lower 48 onshore conventional
- Lower 48 offshore
- Coalbed methane
- Alaska
HYDRAULIC FRACTURING

- 2,000,000 to 8,000,000 gallons of water
- 15,000 gallons of chemicals
- 200-600 tanker trucks of water
- 20-25 truckloads of sand
- 500,000 to 2,500,000 gallons of “flowback” wastewater*
Virginia has about 8,300 existing gas and oil wells, all in the southwest part of the state.
There are almost 1.1 million acres in the George Washington National Forest.
Located entirely in the James and Potomac watersheds, the George Washington National Forest is the largest federal landholding in the Chesapeake Bay watershed.
Outdoor recreation is big business in Virginia – and the GW provides key opportunities for these activities.

In Virginia, outdoor recreation accounts for:

- $13.6 billion in consumer spending
- $923 million in tax revenue
- 138,000 jobs
Ten local governments near the GW have expressed formal concerns over fracking in the GW.
“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. . . .”
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
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

2. The person files an oil discharge contingency plan and proof of financial responsibility to implement the plan, both of which have been filed with and approved by the State Water Control Board.

7. Casing is set and pressure grouted from the surface to a point at least 2500 feet below the surface or 300 feet below the deepest known ground water, as defined in § 62.1-255, for a beneficial use, as defined in § 62.1-10, whichever is deeper;

9. There is no onsite disposal of drilling muds, produced contaminated fluids, waste contaminated fluids or other contaminated fluids;
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.

(continued next page)
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