



# **DRBC Draft Natural Gas Development Regulations**

## **“At-a-Glance” Fact Sheet**

### **December 9, 2010**

## **Purpose, Authority and Scope**

The Commission is proposing a new Article 7 of DRBC’s Water Quality Regulations to protect the water resources of the Basin during the construction and operation of natural gas development projects. This Article applies to all natural gas development projects involving siting, construction or use of production, exploratory or other wells in the Basin regardless of the target geologic formation, and to water withdrawals, well pad and related activities and wastewater disposal activities comprising part of, associated with or serving such projects. The provisions of this Article rely on the state oil and gas regulatory programs of Pennsylvania and New York where separate administration by the Commission would result in unnecessary duplication. The Article supersedes the Executive Director’s Determinations issued on May 19, 2009, June 14, 2010 and July 23, 2010.

This Article implements the statutory authority that the Basin states of Delaware, New Jersey, New York and Pennsylvania and the federal government granted to the Commission in the Delaware River Basin Compact and supplements the Commission’s Comprehensive Plan with respect to natural gas development projects within the Basin. Commission regulations are one mechanism by which the Basin states and federal government work together to manage water resources in an integrated manner for the benefit of all citizens of the Basin.

## **Strategic Regulatory Framework**

This Article’s regulatory framework is divided into sections addressing water sources for natural gas development, well pad siting, and wastewater disposal. The Commission primarily relies on the oil and gas programs and the experienced agency staff of the state in which the natural gas well is located to manage well construction and operation.

## **Water Sources for Uses Related to Natural Gas Well Development**

Existing Commission regulations establish a program for regulating water withdrawals. These Commission requirements serve multiple water resources objectives including, among others, preserving river flows to protect in-stream living resources and downstream withdrawers, and ensuring adequate assimilative capacity for approved discharges. The Commission has in other regulations established thresholds for project review based on the thirty-day average volume of water withdrawals. Water withdrawals for natural gas development including high volume hydraulic fracturing may have substantial water quality impacts due to their high intermittent daily withdrawal volume. Consequently, this Article requires that water used for natural gas development projects must come from water sources that have been approved by the Commission for use for natural gas development. The requirements for approval are designed to protect minimum stream flows, provide a record of water transfers and otherwise ensure that water resources are not adversely affected. A streamlined approval process is provided that encourages the use of existing Commission-approved water sources to minimize the need to construct and operate new water sources. This Article permits water sources located within the physical boundaries of an approved Natural Gas Development Plan (“NGDP”) to be approved for uses within the NGDP. This Article also permits flowback and production waters, treated wastewater and mine drainage waters to be reused for natural gas development under specified conditions.

## **Natural Gas Development Plan (“NGDP”) and Well Pad Siting Requirements**

The severity of the risks to water resources from well pad construction and operation depends in large part on where the well pads are placed. Article 7 seeks to minimize impacts to water resources from natural gas development by establishing NGDP and well pad siting and planning requirements, including:

- Mandatory preparation of NGDP by sponsors of natural gas well pad projects who have total lease holdings in the Delaware River Basin of over 3,200 acres or intend to construct more than five natural gas well pads designed for any type of natural gas well.
- Identification, through the NGDP, of the project sponsor’s foreseeable natural gas development in a defined geographic area. The NGDP requirement is designed to foster protection of water resources through broad scale lease area planning rather than limited site-by-site decision making, thereby encouraging development only in areas most suitable for it and minimizing impact to sensitive water resource features. These plans identify geographic and hydrological constraints to natural gas development and identify measures to minimize those impacts.
- Restrictions regarding siting in flood hazard areas, on steep slopes, and areas that serve as critical habitat for federal or state designated threatened and endangered (T&E) species.

- Minimum setbacks from water bodies, wetlands, surface water supply intakes and water supply reservoirs at distances specified in the regulations, and from occupied homes, public buildings, public roads, public water supply wells, and domestic water supply wells as provided by regulations of the state in which the well pad is located.
- A requirement for pre- and post-project monitoring of surface and groundwater near well pads involving high volume hydraulically fractured wells, including a characterization of the hydrology, water chemistry and biological resources of surface waters and the water chemistry of ground waters.
- Requiring the monitoring, tracking, and reporting of water usage and wastewater treatment and disposal. All wastewaters must be transported to approved treatment and disposal facilities.

## **Well Construction and Operation Procedures**

The Commission principally relies on the states' implementation of state laws, regulations and programs concerning construction and operation of natural gas wells, well pads, and appurtenant structures to satisfy the requirements of the Compact and the Commission's Comprehensive Plan. In this Article, the Commission is separately requiring that all non-domestic wastewater be transferred to appropriate tanks for temporary storage on the well pad site or to a centralized wastewater storage facility and that fluids and drill cuttings from horizontal wellbores in the target formation be beneficially reused or disposed of at an appropriate waste facility.

## **Wastewater Generated from Natural Gas Activities**

Wastewater produced at natural gas well sites contains salts and other chemicals that present water treatment challenges. This Article provides that any wastewater treatment facility within the Basin may accept non-domestic wastewater from a natural gas development project only if the facility first obtains approval from the Commission in the form of a docket or modification of an existing docket.

To obtain authorization, a project sponsor must submit a treatability study to demonstrate that acceptance of the non-domestic wastewater will not interfere with the facility's operations, and provide information to show that the facility's discharge will neither (a) cause primary and secondary Safe Drinking Water Act standards to be exceeded where surface water may be used as a public water supply, nor (b) violate zone-specific stream quality objectives and effluent limitations. This Article 7 includes a comprehensive tracking system designed to promote the proper disposal of wastewater from natural gas development projects.

## **Approval by Rule ("ABR") Procedures**

Existing procedures for obtaining a Commission decision on a project application generally take 6-9 months. This Article 7 provides for a streamlined process for natural gas development projects that demonstrate that they satisfy certain criteria. It provides Commission approval for these projects under an "approval by rule" process involving public notice, application to and approval by the Executive Director in a process that may take less than 30 days. Eligible projects include (a) bulk water sales for uses related to natural gas by holders of valid Commission approvals that can provide water within their current allocations; (b) well pad projects that conform to a Commission-approved Natural Gas Development Plan; (c) well pad projects that conform to specified restrictions and setback requirements; and (d) water supply projects involving the reuse of recovered flowback and production fluids as make-up water for hydraulically fracturing natural gas wells. In addition, projects that do not involve fracturing or that consist of well pads constructed exclusively for the development and operation of exploratory natural gas wells and that are expected to use no more than 80,000 gallons or equivalent of hydraulic fracturing fluids ("low volume hydraulically fractured wells") are eligible for an ABR if they comply with applicable state programs and Commission setbacks and requirements.

Approval by rule is not available for projects located in National Park Management Areas or in the watersheds of the New York City Reservoirs.

## **Financial Assurance Requirements**

Financial assurance for the plugging, abandonment and restoration of natural gas wells and the remediation of any pollution from natural gas development activities is required in the amount of \$125,000 per natural gas well. After well installation and hydraulic fracturing are complete, the Executive Director may approve a reduction in the amount of the financial assurance for individual wells if there is no evidence of harm to the water resources of the Basin and the project sponsor obtains a separate "excess" insurance policy or other financial assurance instrument.