INFORMATION NOTICE

Notice of Proposed Rulemaking and Public Hearing

Proposed Amendments to the Administrative Manual and Special Regulations Regarding Natural Gas Development Activities;

Additional Clarifying Amendments

Summary: The Commission will hold public hearings and accept written comment on a proposal to amend its Special Regulations by the addition of a section on hydraulic fracturing in shale and other rock formations, including: the prohibition of high volume hydraulic fracturing in such formations; provisions related to water use for hydraulic fracturing; and provisions related to the management of produced water from hydraulic fracturing. The Commission also proposes to amend its Administrative Manual – Rules of Practice and Procedure by the addition of project review classifications and fees related to the management of produced water from hydraulic fracturing of hydrocarbon bearing rock formations. Minor amendments to the project review classifications unrelated to hydraulic fracturing are also proposed.

DATES:

Written comments: Written comments will be accepted through 5 p.m. on February 28, 2018.

Public hearings:
1. January 23, 2018, 1 p.m. to 4:30 p.m., Wawaytown, Wayne County, PA
2. January 23, 2018, 6 p.m. to as late as 9:30 p.m., Wawaytown, Wayne County, PA
3. January 25, 2018, 1 p.m. to 4:30 p.m., Philadelphia, PA
4. January 25, 2018, 6 p.m. to as late as 9:30 p.m., Philadelphia, PA

On November 30, 2017, a notice including these public hearing dates, times and locations was posted on the DRBC website and circulated directly to DRBC notice subscribers interested in this subject matter. Members of the public may sign up through the Commission’s website to receive direct notice via email of additional comment opportunities or changes to the information provided above.

ADDRESS:

Written comments will be accepted through the Commission’s on-line public comment collection system at: http://dockets.drbc.commentinput.com. Requests to submit comments by another method will be granted based on lack of access to the web-based comment system. Requests may be addressed to: Commission Secretary, DRBC, P.O. Box 7360, West Trenton, NJ 08628.

The hearing locations are:
1. Ladore Camp, Retreat and Conference Center, 287 Owego Turnpike, Wawaytown, PA 18472
2. Ladore Camp, Retreat and Conference Center, 287 Owego Turnpike, Wawaytown, PA 18472
3. DoubleTree by Hilton Hotel Philadelphia Airport, 4509 Island Avenue, Philadelphia, PA 19153
4. DoubleTree by Hilton Hotel Philadelphia Airport, 4509 Island Avenue, Philadelphia, PA 19153

Additional opportunities for comment or changes to the public input process will be published on the Commission’s website, drbc.net and through its Twitter account. To receive direct notice of such additions or changes, please subscribe through the Commission’s website at: http://www.nj.gov/drbc/contact/interest/.

Rule Making Activities

Public hearing registration procedures are set forth below.

Registration to Attend and Speak at a Public Hearing

To reduce uncertainty on the part of attendees about whether they will have a seat and an opportunity to speak at a public hearing, and to provide for a safe and orderly hearing process, the Commission is requiring registration on-line or on-site to attend each public hearing and is continuing use of the on-line registration system. The web-based registration system will track and publish in real time the available capacity for each hearing. Advance registrants will be eligible to request speaking time and will be informed in advance if they have a reserved speaking slot. Those who register on site may sign up to speak if time allows or may be added to a waiting list. Key elements of the procedure are as follows:

- On-line or on-site registration is required to attend each public hearing.
- On-line registration will remain open until the beginning of each hearing.
- On-site registration will be available at the hearing venues.
- Available capacity for each hearing will be posted on the web-based registration system. When users access the system, they will see the number of seats still available or if the venue is at capacity.
- If capacity has been reached for a specific hearing, registrants will be placed on a waiting list.
- Those who do not register in advance are advised to check the availability of seats BEFORE planning travel to a hearing.
- Those who pre-register on-line will be eligible to reserve an opportunity to speak at a hearing.
- Prior to the hearing dates, the DRBC will contact all those who have pre-registered and provide them with an opportunity to request speaking time.
- If more people request to speak than time allows, those not assigned time will be placed on a waiting list.

Written and oral comment will receive equal consideration. See the “Public Process” subsection of SUPPLEMENTARY INFORMATION for additional details concerning the public hearings and submission of written comments.

SUPPLEMENTARY INFORMATION:

The Delaware River Basin Commission (DRBC or “Commission”) is a regional interstate and federal agency formed by concurrent compact legislation of the four basin states and the federal government in 1961 to manage the water resources of the Delaware River Basin without regard to political boundaries. Its members are, ex officio, the governors of the basin states (Delaware, New Jersey, New York, and Pennsylvania) and the commander of the U.S. Army Corps of Engineers North Atlantic Division, who represents the federal government. Most actions of the Commission, including the adoption of rules to effectuate, apply and enforce the compact, require a majority vote of the Commission’s five members. The Commission is not subject to the requirements of the New York State Administrative Procedure Act.

Background

On September 13, 2017, the Commissioners by a Resolution for the Minutes directed the Executive Director to prepare and publish for public comment a revised set of draft regulations, to include: “(a) prohibitions relating to the production of natural gas utilizing horizontal drilling and hydraulic fracturing within the basin; (b) provisions for ensuring the safe and protective storage, treatment, disposal and/or discharge of wastewater within the basin associated with horizontal drilling and hydraulic fracturing for the production of natural gas where permitted; and (c) regulation of the inter-basin transfer of water and wastewater for purposes of natural gas development where permitted.”

In accordance with the Commissioners’ September 13 directive, the Commission is proposing amendments to its regulations and comprehensive plan to better provide for the planning, conservation, utilization, development, management and control of the basin’s water resources in connection with the hydraulic fracturing of shale and other hydrocarbon-bearing formations to produce oil and gas. The Commission proposes to prohibit high volume hydraulic fracturing within the basin to effectuate the comprehensive plan for the immediate and long term development and use of the water resources of the basin, and to conserve, preserve and protect the basin’s water resources for uses in accordance with the comprehensive plan.

Through a series of policies and regulations establishing and amending its comprehensive plan, the Commission over the past half-century has established in-stream water quality standards throughout the basin, prohibited degradation of groundwater, and provided special protection to the non-tidal segment of the Delaware River to preserve its exceptionally high water quality and water supply values. As the agency through which the five signatory parties to the Compact collectively manage the basin’s...
water resources on a regional basis, the Commission has taken these steps to ensure public awareness and needs for coordinated protection and recreation, power generation, and industrial activity, and to accommodate large out-of-basin diversions by the City of New York and the State of New Jersey that are authorized by the 1954 decree of the U.S. Supreme Court and which are now maturing.

Portions of Pennsylvania and New York comprising about 40 percent of the basin’s geographic area are underlain by the Marcellus and Utica shales, geologic strata known to contain natural gas. Although the presence of commercial hydrocarbon deposits beneath these formations within the basin is not known, in regions of Pennsylvania west of the basin divide, oil and natural gas are extracted from the Marcellus and Utica formations by means of directional drilling and hydraulic fracturing using large volumes of water as a process referred to as “high volume hydraulic fracturing” (HVHF).2

A single well may be fractured simultaneously on a single pad, or as many as twelve wells may be installed on a single well pad.4

The use of HVHF to extract oil and natural gas from tight shale formations presents risks, vulnerabilities and impacts to the quality and quantity of surface and groundwater resources that have been documented extensively, including in comprehensive reports by the New York State Department of Environmental Conservation (NYSDEC)5 and the United States Environmental Protection Agency (EPA),6 among others. These reports identify the risks to water resources associated with each of the steps in the “hydraulic fracturing water cycle,”7 others. These reports identify the risks to water resources associated with hydraulic fracturing. As discussed in greater detail below, in the Marcellus region in Pennsylvania, the median quantity of water required to stimulate a natural gas well exceeds 4 million gallons for each fracturing event.8 A single well may be fractured in multiple stages and/or multiple times,9 and as many as twelve wells may be installed on a single well pad.8

The volume of water and wastewater involved is thus significant.

The acquisition of water for use in HVHF may result in modifications to groundwater levels, surface water levels, and stream flows. The Susquehanna River Basin Commission (SRBC) has reported that for the period 2008 through 2013 an average of 4.3 million gallons of water were injected per fracturing event in natural gas wells within the Susquehanna basin.10 During the same period, 84 percent of injected water was “fresh” water from surface water and groundwater sources, and the remaining 16 percent was recycled produced water or flowback water.11 According to EPA, the median volume of water used per well fracturing event in Pennsylvania between January 2011 and February 2013 was 4.18 million gallons.12 EPA further reports that in at least 10 percent of cases, the water use in Pennsylvania during the same period was over 6.6 million gallons per well.13 EPA has reported that in the Marcellus formation in Pennsylvania, 82 to 90 percent of the base fluid volume used for hydraulic fracturing is naturally occurring and that the remaining base fluids (10 to 18 percent) are reused and recycled produced water.14

Advances in horizontal drilling technology are leading to longer drill paths and the need for more fracturing fluid volumes for each path. According to SRBC, when the industry began lengthening its lateral well bores in 2013, the average amount of water used per fracturing event increased to approximately 5.1 to 6.5 million gallons per fracturing event.15

Withdrawals from surface and ground water in the amounts required for HVHF may create adverse impacts on local and riparian resources downstream, including wetlands, and may diminish the quantity of water stored in an aquifer or a stream’s capacity to assimilate pollutants. Because HVHF operations may significantly increase the volume of water withdrawn, the balance between the demand on water resources and the availability of those resources for uses protected by the Commission’s comprehensive plan, particularly during periods of low precipitation or drought, may be affected. In addition, the reuse of commercial water use, most water used for HVHF is used “consumptively,” meaning it is not returned to the basin’s usable ground or surface waters. According to the EPA, water accounts for 90 to 97 percent of all hydraulic fracturing fluids involved in the process of extracting natural gas.15 EPA reports further that produced water, or water that flows from and through oil and gas wells to the surface as a by-product of oil and gas production over a ten-year operations period, makes up only 10 to 30 percent of the fluid injected. Accordingly, EPA estimates that between 2005 and 2013 hydraulic fracturing is permanently removed from the water cycle.18 The SRBC’s estimate is higher. SRBC reports that approximately 96 percent of water withdrawn by the natural gas industry is consumptively used in the hydraulic fracturing process and that the balance of the water is consumptively used for water recycling as well as flowback, preparation of drilling muds and grout, dust control, maintenance operations, and site reclamation.19 In contrast, the DRBC estimates that 90 percent of water withdrawn for domestic and commercial uses in the Delaware River Basin is returned to basin waters, either by infiltration into aquifers or by discharge to surface waters after treatment at a wastewater treatment facility.20

Chemical use. Although chemical additives generally make up the smallest proportion of the overall composition of hydraulic fracturing fluids, they pose a comparatively high risk for ground and surface water quality relative to other reporting fluids.21 Additives, which can be a single chemical or a mixture of chemicals, are combined with the base fluid to change its properties, including, for example, to adjust pH, increase fluid thickness, reduce friction, or limit bacterial growth. The EPA has identified 1,084 chemicals required to have been added to hydraulic fracturing fluids between 2005 and 2015.22 The precise form in which additives to use depends on the characteristics of the targeted rock formation, and in some cases chemical information is considered Confidential Business Information and not disclosed by the fracturing operator.23 Based upon EPA’s analysis, the combination of activities and factors more likely than others to result in more frequent or more severe impacts to water resources are spills during the management of hydraulic fracturing fluids and chemicals that result in large volumes, or high concentrations of chemicals reacting groundwater resources.24

Well drilling and construction. Well drilling, well construction and well stimulation associated with HVHF also carry risks for groundwater and surface water resources. These risks include turbidity or other disruptions in local ground water formations and local groundwater wells, and contamination of aquifers by fluids pumped into or flowing from rock formations penetrated by the drilling of the well, particularly in the event of a compromised well casing. Typically, the developable shale formations are vertically separated from potential freshwater aquifers by thousands of feet of sandstones and shales of moderate to low permeability. High-volume hydraulic fracturing is engineered to target the prospective hydrocarbon-producing zone. Although the induced fractures create a pathway to the intended wellbore, they typically do not create a discharge mechanism or pathway beyond the fractured zone where none existed before. However, because the well bore penetrates groundwater aquifers and can be a pathway for fluid movement to existing drinking water and other groundwater resources, the mechanical integrity of the well is an important factor that affects the frequency and severity of potential water resource impacts from pollutants. A well with insufficient mechanical integrity can increase the risk of impacts and allow uncontrolled and fluid movement between formations and across geologic units. Such defects can arise from inadequate well design or construction or can develop over the well’s lifetime, including during hydraulic fracturing.25

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In particular, casing and cement can degrade over the life of the well because of exposure to corrosive chemicals, formation stresses, and operational stresses (e.g., pressure and temperature changes during hydraulic fracturing). Gas migration can also potentially occur as a result of poor well construction (i.e., casing and cement problems), or through existing abandoned wells or faults which may be being inadvertently by a new oil or natural gas well. The EPA examined these types of pathways for the migration of hydraulic fracturing fluids and liquids and/or gases that exist in the subsurface to affect the quality of subsurface drinking water resources and reported on failures and impacts to water resources in detail. Wastewater handling and disposal. “Produced water” (including “flowback” water) refers to any water or fluid returned to the surface through the production well as a waste product of hydraulic fracturing. This material may be stored in tanks or other containers on the pad before it is transferred for off-site treatment and/or disposal. The composition of produced water depends on the composition of the injected hydraulic fracturing fluid and the composition of the target formation. In the Marcellus region, produced water is generated in large quantities and often contains high concentrations of total dissolved solids (TDS or “salts”) and constituents that may be harmful to human health and the environment. Produced water from HVHF in the Marcellus formation has been found to contain:• Salts, including chloride, bromide, sulfate, sodium, magnesium, and calcium;• Metals, including barium, manganese, iron, and strontium;• Naturally-occurring organic compounds, including benzene, toluene, ethylbenzene, xylenes(BTEX), and oil and grease;• Radioactive materials, including radium; and• Hydraulic fracturing chemicals and their chemical transformation products.

The disposal of produced water poses a significant risk to the water resources of the basin if the wastewater is not properly managed. The concentration of TDS in produced water can be high enough that if discharged untreated to surface water, the potential exists to adversely affect designated uses of surface water, including drinking water, aquatic life support, livestock watering, irrigation, and industrial use. If discharged untreated to groundwater, produced water contains high TDS and dissolved inorganic constituents that most publicly owned treatment works and other municipal wastewater treatment facilities are not designed to remove, these constituents can be discharged untreated from such facilities; can disrupt treatment processes, for example by inhibiting biological treatment; can accumulate in biosolids (sewage sludge), limiting their beneficial use; and can facilitate the formation of harmful disinfection byproducts. Where produced water has been discharged to domestic wastewater treatment facilities in the past, elevated concentrations of chloride and bromide have been documented in the receiving waters. The discharge of bromide upstream of drinking water intakes has led in documented instances to the formation of carcinogenic disinfection by-products at drinking water utilities.

The EPA since 1979 has required zero discharge of pollutants to waters of the United States from onshore oil and gas extraction wastewater. In 2016 EPA finalized a rule establishing pretreatment standards for discharges of wastewater from onshore unconventional oil and gas extraction facilities to municipal sewage treatment plants (also known as “publicly owned treatment works” or POTWs). The recent EPA rule will protect POTWs from disruptions in their operations that can be caused by these wastewaters. However, the rule does not extend to commercially owned treatment works that primarily treat domestic and commercial wastewater, and it does not address the discharge to POTWs of produced water that has been partially treated at centralized waste treatment facilities. Thus, significant risks associated with the treatment and discharge of produced water remain outside the scope of current federal regulations.

Siting and Landscapes. Certain water resources in the basin have high water resource value because of their exceptional water quality or their exceptional ability to perform water supply, ecological, recreational or other water-related functions. The Commission has classified certain of these waters as Special Protection Waters through provisions of its Water Code incorporated in the comprehensive plan. The Water Code seeks to maintain the impaired condition of these other resources due to large water withdrawals for high-volume hydraulic fracturing; cumulative impacts; stormwater runoff; surface spills, leaks and pit or surface impoundment failures; groundwater impacts associated with well drilling and construction; and seismic activity; [and] waste disposal.”.. Additional detail regarding damages to water resources and the risks, vulnerabilities and impacts to surface and ground water resources associated with HVHF can be found in the cited reports.

Related Statutory and Regulatory Provisions

The proposed rules regarding hydraulic fracturing arise from the following provisions, among others, of the Commission’s organic statute, the Delaware River Basin Compact (“Compact”), and determinations that have been codified in the Delaware River Basin Water Code and incorporated into the Commission’s comprehensive plan:

The signatory parties [to the Compact] recognize the water and related resources of the Delaware River Basin as regional assets vested with federal, state, and national interests, for which they have a joint responsibility.

Approximately 15 million people “...of the United States ... [rel[on water] from the Delaware River Basin ... and the ... economic development of the entire region and the health, safety, and general welfare of its population are and will continue to be vitally affected by the use, conservation, management, and control of the water and related resources of the Delaware River Basin.”

“The commission may assume jurisdiction to control future pollution...
and abate existing pollution in the waters of the basin, whenever it determines after investigation and public hearing upon due notice that the effectuation of the comprehensive plan so requires.446

- “The waters of the Delaware River Basin are limited in quantity and the basin is frequently subject to drought warnings and drought declarations due to limited water supply storage and streamflow during dry periods. The Commission shall be the policy-making body to discourage the exportation of water from the Delaware River Basin.”447

- “[T]he basin waters have limited assimilative capacity and limited capacity to accept conservative substances without significant impacts. According to the Commission, it also shall be the policy of the Commission to discourage the importation of wastewater into the Delaware River Basin that would significantly reduce the assimilative capacity of the receiving stream on the basis that the ability of Delaware River Basin streams to accept wastewater discharges should be related to their water quality.448

- “It is the policy of the Commission that there be no measurable change in existing water quality except towards natural conditions in waters considered by the Commission to have exceptionally high scenic, recreational, ecological, and/or water supply values. Waters with exceptional values may be classified by the Commission as either Outstanding basin Waters or Significant Resource Waters.”449

- “It is the policy of the Commission to give no credit toward meeting wastewater treatment requirements for wastewater imported into the Delaware basin.”500

- “The Commission shall not consider underground water resources of the basin shall be used, conserved, developed, managed, and controlled in view of the need of present and future generations, and in view of the resources available to them. To that end, interference, impairment, penetration, or artificial recharge shall be subjected to review and evaluation under the Compact.”501

- “Alkalinity or substances or properties which are in harmful or toxic concentrations or that reduce color, taste, odor of the water shall be permitted or induced by the activities of man to become ground water.”502

- “[T]he Commission may establish requirements, conditions, or prohibitions which, in its judgment, are necessary to protect ground water quality.”503

- “The Commission has determined that allocations of the waste assimilative capacity of the Delaware River Estuary are necessary to maintain stream quality objectives in Zones 2, 3, 4 and 5 for the following pollutants: (a) acute toxicity; and (b) chronic toxicity.”504

- “The Commission has determined that allocations of the waste assimilative capacity of the Delaware River Estuary are necessary to maintain stream quality objectives in Zones 2 and 3 for the following pollutants: (a) 1, 2 dichloroethane; (b) tetrachloroethene.”55

Summary of Proposed Rules

Prohibition. Section 5.2 of the Compact authorizes the Commission to "assume jurisdiction to control future pollution ... in the waters of the basin," over it and thereafter after public notice and hearing upon due notice that the effectuation of the comprehensive plan so requires.585 It further authorizes the Commission to control pollution from industrial or other waste originating within a basin state so that the pollution does not "injuriously affect the waters of the basin as contemplated by the comprehensive plan." The Commission may also adopt rules, regulations, and standards to control future pollution. Considering the totality of the risks that HVHF poses to basin water resources, the Commission proposes in Section 440.3(b) of the draft rule to determine that controlling pollution by prohibiting high volume hydraulic fracturing in the basin is required to effectuate the comprehensive plan, avoid injury to the waters of the basin as contemplated by the comprehensive plan and protect the public health and preserve the waters of the basin for uses in accordance with the comprehensive plan.

Water exports. The transfer of surface water, groundwater, treated wastewater or mine drainage water, at any rate or volume, for utilization in hydraulic fracturing to produce oil and gas outside the Delaware River Basin is proposed to require Commission approval. Currently, exports of water from the basin of less than the daily average quantity of 100,000 gallons are deemed to have no substantial effect on the basin’s water resource, and are therefore not reviewed by the Commission under section 3.8 of the Compact. The Commission has a longstanding policy of discouraging exports of water on the grounds that the availability of water to meet in-basin needs is limited and low-flow and drought conditions are frequent. Unlike regulated withdrawals for domestic, commercial and industrial water supply, withdrawals of large quantities of water for hydraulic fracturing to produce oil and gas have the potential, if unregulated, to occur through de-centralized, periodic and transient means and thus to adversely affect headwater streams and minimum flows of surface and groundwater, and to impair uses protected by the Commission’s comprehensive plan. The proposed rule will make oil and gas producers liable for impacts on the environment if improperly handled. Under the proposed rules, the “produced water” from the hydrocarbon-bearing strata during oil and gas extraction is broadly defined to include untreated produced water, diluted produced water, and produced water mixed with other wastes. The rule provides that this material may not be transferred, treated or discharged from or to a new or existing wastewater treatment facility located within the Delaware River Basin, at any volume or rate, except in accordance with an approval in the form of a docket issued by the Commission to the owner or operator of the wastewater treatment facility or in accordance with a state permit issued pursuant to a duly adopted administrative agreement between the Commission and the host state. The rule further provides that produced water may not be treated within the basin except at a centralized wastewater treatment facility (CWT) as that term is defined by the EPA in 40 CFR part 437 and may not be discharged within the basin without treatment at a CWT. Because current EPA regulations governing treatment by CWTs do not include limitations for pollutants commonly found in produced water, such as total dissolved solids, barium, bromide, radium and strontium, the proposed rule also places conditions on the treatment and discharge of wastewater or effluent resulting from the treatment of produced water by a CWT (“CWT wastewater”) before the CWT wastewater can be discharged to basin waters or to another treatment facility within the basin.

The Commission is in place a proposal to discourage the importation of wastewater into the basin due to the limited capacity of the basin’s waters to assimilate waste. Proposals to import produced water and CWT wastewater into the basin will be subject to this policy and to the requirements that alternatives involving no importation be analyzed and that the water resource, economic and social impacts of the proposal be evaluated.

Under the proposed rules, projects involving the treatment and discharge of produced water within the basin must meet the more stringent of applicable federal, state and DRBC requirements. Additional effluent limitations are proposed to apply to such projects for total dissolved solids, and effluent toxicity, and a set of “pollutants of concern” identified on the basis of produced water characterization provided by EPA in a 2016 technical document. The majority of the EPA’s primary and secondary drinking water standards are also proposed as treatment levels for produced water discharged to a receiving waterbody designated for use as a public water supply. Treatment studies will be required to ensure that pollutant loads from natural gas wastewater are thoroughly characterized and that treatment ensures these pollutants are effectively reduced or eliminated, such that applicable effluent limits, stream quality objectives, protect resources, and in the case of State Waters, the “no measurable change” objective, are attained. Because the proposed rule requires treatment to “background concentrations” for pollutants of concern in many instances, the Commission is simultaneously publishing draft guidance on acceptable methods for determining background concentrations of these pollutants.

Other changes. Revisions to the Commission’s thresholds for review set forth in 18 CFR 401.35 are proposed to establish that certain activities relating to hydraulic fracturing in hydrocarbon-bearing formations are deemed to constitute projects having a substantial effect on water resources of the basin and thus would be subject to review under Section 3.8 of the Compact. These include: the importation, treatment, or discharge to basin land or water of “produced water” as defined by the rule; and the exportation of water from the basin for uses related to hydraulic fracturing. Although certain additional activities and facilities on a well pad site could be separately identified by the Commission as projects, in light of the proposed prohibition, no changes to existing rules are proposed in this regard at this time. Minor changes are concurrently proposed to existing thresholds for the Commission’s review of leachate discharges and wetlands.

To provide for appropriate fees to cover the cost of reviews of new classes of projects deemed to require the Commission’s approval, changes are also proposed to section 401.43 (regulatory program fees).

Executive Director Determinations

The final regulations relating to natural gas development when adopted will supersede and replace the Executive Director’s Determinations issued on May 19, 2009, June 14, 2010 and July 23, 2010.

Public Process

Subsistence of comments. The Commission expressly seeks comment on the effects the proposed rules may have within the basin on: water
availability, the control and abatement of water pollution, economic development, the conservation and protection of drinking water supplies, the conservation and protection of aquatic life, the conservation and protection of water quality in Special Protection Waters, and the protection, maintenance and improvement of water quantity and quality basinwide. Comments are also requested on whether use of base fluids other than water for HVHF is practical within the basin and if so, how it should be addressed in these rules, and on any alternatives to the proposed rules that the commenters would like the Commission to consider, as well as on draft anance published simultaneously with the rules for determining background concentrations of certain pollutants. The Commission welcomes and will consider any other comments that concern the potential effects of the draft rules on the conservation, utilization, development, management and control of water and related resources of the Delaware River Basin. Comments on matters not within this scope may not be considered.

Non-digitized voluminous materials such as books, journals or collected letters/petitions will not be accepted. Digital submissions of these, as well as articles and websites, must be accompanied by a statement containing citations to the specific findings or conclusions the commenter wishes to reference.

Submission of written comments. Written comments along with any attachments may be submitted through the Commission’s web-based comment system (http://dockets.drbc.commentinput.com) until 5 PM on February 28, 2018. All materials should be provided in searchable formats, preferably in.pdf searchable text. Notably, a picture scan of a document may not result in searchable text. Comments received through a method other than the designated on-line method, including via email, fax, postal/delivery services or hand delivery, will be included in the rules only if an express exception has been granted. Requests for exceptions to the submission of comments using the web-based system will be granted based on lack of access to the Internet and may be addressed to: Commission Secretary, DRBC, P.O. Box 7360, West Trenton, NJ 08628.

Public hearings. Details regarding registration to attend public hearings and to request speaking time are set forth in the fourth section of this notice, captioned “Registration to Attend and Speak at a Public Hearing”. Additional procedures are described here. Notably, municipal, county, state, and federal elected officials (and staff speaking on behalf of elected officials) will be asked to identify themselves as such when registering. The number of speakers and the number of attendees will be limited by the space and time available. In order to provide as many individuals who wish to speak as possible with an opportunity to do so, each person will be limited to one time slot at one hearing location. Depending on the number who wish to be heard, speakers will be limited to two or three minutes.

The Commission appreciates the public's participation and input on this important matter. In order to ensure that scheduled public hearings are orderly and safe, it is essential that public hearing procedures be followed. The Commission’s policies related to speaker conduct, audience conduct, safety, security, signs, placards and banners will be in effect at these public hearings. Participants are requested to review all DRBC public hearing procedures on DRBC's website at: http://www.state.nj.us/drbc/library/documents/procedures_public-hearings050117.pdf.

The public is reminded that oral and written comments will receive the same consideration.

ADDITIONAL INFORMATION:
Detailed information about the public process, including links to the proposed rules and guidance are available on the Commission’s website, drbc.net, and specifically at: http://www.nj.gov/drbc/meetings/proposed/notice_hydraulic-fracturing.html.

For the reasons set forth in the preamble, the Delaware River Basin Commission proposes to amend existing part 401 of title 18, subchapter A of the Code of Federal Regulations (18 CFR part 401) and to add a new part 440 to subchapter A of title 18 of the CFR, as set forth below.

5 United States Environmental Protection Agency, Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States, Dec. 2016 (EPA-600-R-16-236Fa) (hereinafter, “EPA HF Study 2016”). Exec. Sum., p. 23, n.3 (explaining that in a multi-stage hydraulic fracturing operation, specific parts of the well are isolated and hydraulically fractured until the total desired length of the well has been hydraulically fractured.) Available at: https://www.epa.gov/hfstudy. Also see, 18 CFR 806.3 (SRBC regulations for review and approval of projects, defining “hydrocarbon development project” as including “all other activities and facilities associated with ... the production, maintenance, operation, closure, plugging and restoration of [unconventional natural gas development] wells or drilling pad sites that require water for purposes including but not limited to, re-stimulation and/or re-completion of such wells...” (emphasis added).
7 See NYS Final SGEIS 2016, supra n.1.
8 See EPA HF Study 2016, supra n.5.
9 The term “hydraulic fracturing water cycle” is used by the EPA to describe the five stages of this water-intensive activity: water acquisition, chemical mixing, well injection, produced water handling, wastewater disposal and reuse. EPA HF Study 2016, Exec. Sum., pp. 7-9. Extracted from: https://www.epa.gov/hfstudy/hydraulic-fracturing-water-cycle.
11 SRBC NG Water Use 2016, p. 39.
12 Id.
13 EPA HF Study 2016, Exec. Sum., p. 11 (Table ES-1).
14 Id.
15 EPA TDD 2016, p. 43 (Table C-1).
16 SRBC NG Water Use 2016, p. 43.
18 Id., p. 12 (Fig. ES-4(a)).
19 SRBC NG Water Use 2016, p. 38.
20 For comparison with climatically similar areas and the world, see Kimberly H. Schaffer and Donna L. Runkle, Consumptive Water Use Coefficients for the Great Lakes basin and Climatically Similar Areas, U.S. Geological Survey Scientific Investigations Report 2007-5197, p. 13 (Fig. 7). Available at: https://pubs.usgs.gov/sir/2007/5197/.
21 EPA HF Study 2016, Exec. Sum., p. 16.
22 Id. A comprehensive review of chemical additives is provided in EPA TDD 2016, pp. 43-47 (Sec. 1.2).
23 EPA HF Study 2016, p. 5-20 (Text Box 5-2).
by notice to the project owner or sponsor, [or as a state or federal agency may refer under paragraph (c) of this section], a project in any of the following classifications will be deemed not to have a substantial effect on the water resources of the basin and is not required to be submitted under Section 3.8 of the Compact:

(2) A withdrawal from ground water [for any purpose] when the daily average gross withdrawal during any 30 consecutive day period does not exceed 100,000 gallons;

(4) Except as provided at 18 CFR 401.35(b)(18) (RPP § 2.3.5 B.18.), 

[T]he construction of new domestic sewage treatment facilities or alteration or addition to existing domestic sewage treatment facilities when the design capacity of such facilities is less than a daily average rate of 10,000 gallons per day in the drainage area to Outstanding basin Waters and Significant Resource Waters or less than 50,000 gallons per day elsewhere in the basin; and all local sewage collector systems and improvements discharging into authorized trunk sewage systems;

(5) Except as provided at 18 CFR 401.35(b)(18) (RPP § 2.3.5 B.18.), 

[T]he construction of new facilities or alteration or addition to existing facilities for the direct discharge to surface or ground waters of industrial wastewater having design capacity of less than 10,000 gallons per day in the drainage area to Outstanding basin Waters and Significant Resource Waters or less than 50,000 gallons per day elsewhere in the basin; except where such wastewater contains toxic concentrations of waste materials;

(15) Draining, filling or otherwise altering marshes or wetlands when the area affected is less than 25 acres; provided; however, that areas less than 25 acres shall be subject to Commission review and action [if] where neither a state nor a federal level review and permit system is in effect; [requiring action by the Commission, or (ii) when a Commissioner or the Executive Director determines that the final action of a state or federal permitting agency may not adequately reflect the Commission’s policy as to wetlands of the basin. In the case of a project affecting less than 25 acres for which there has been issued a state or federal permit, a determination to undertake review and action by the Commission shall be made no later than 30 days following notification of the Commission of such permit action. The Executive Director, with the approval of the Chairman, may at any time within the 30-day period inform any permit holder, signatory party or other interested party that the Commission will decline to undertake review and action concerning any such project;

(16) Except as provided at 18 CFR 401.35(b)(19) (RPP § 2.3.5 B.19.), 

[T]he diversion or transfer of water from the Delaware River Basin (exportation) whenever the design capacity is less than a daily average rate of 100,000 gallons;

(18) Except as provided at 18 CFR 401.35(b)(18) (RPP § 2.3.5 B.18.), 

[T]he diversion or transfer of wastewater into the Delaware River Basin (importation) whenever the design capacity is less than a daily average rate of 50,000 gallons; and

(19) To the extent allowed in the basin (see prohibition at 18 CFR 440.3(b)), projects involving hydraulic fracturing, unless no state-level review and permit system is in effect; 

[(19)(20) Temporary or short term projects determined to have non-substantial impact on the water resources of the basin by the Executive Director.

(b) All other projects which have or may have a substantial effect on the water resources of the basin shall be submitted to the Commission in accordance with these regulations for de termination as to whether the project impairs or conflicts with the comprehensive plan. Among these are projects involving the following (except as provided in paragraph [A.] (a) of this section):

[(14) Regional wastewater treatment plans developed pursuant to the Federal Water Pollution Control Act;

(15)(5) Leachate treatment and disposal projects associated with landfills and solid waste disposal facilities in the basin; [Landfills and solid waste disposal facilities affecting the water resources of the basin;

(15)(6) State and local standards of flood plain regulation;

(16)(7) Electric generating or cogenerating facilities designed to consu mptively use in excess of 100,000 gallons per day of water during any 30-day period; and 

(17)(8) Any other project that the [Executive Director] Commission may especially direct by notice to the project sponsor or land owner as having a potential substantial water quality impact on waters classified as Special Protection Waters;

(18) The importation, treatment, or discharge to basin land or water of “produced water” or CWT wastewater as those terms are defined in 18 CFR 440.2.
(c) Regardless of whether expressly excluded from review by paragraph (a) of this section, any project or class of projects that in the view of the Commission could have a substantial effect on the water resources of the basin may, upon special notice to the project sponsor or landowner, be subject to the requirement for review under section 3.8 of the Compact. Whenever a state or federal agency determines that a project falling within an excluded classification (as defined in paragraph (a) of this section) may have a substantial effect on the water resources of the basin, such project may be referred by the state or federal agency to the Commission for action under these Rules.

[d] Except as otherwise provided by § 401.39 the sponsor shall submit an application for review and approval of a project included under paragraph B. above through the appropriate agency of a signatory party. Such agency will transmit the application or a summary thereof to the Executive Director, pursuant to Administrative Agreement, together with available supporting materials filed in accordance with the practice of the agency of the signatory party.

§ 401.43 Regulatory program fees.

(b) ***

(i) [Docket a] Application fee. Except as set forth in paragraph (b)(1)(ii) of this section, the [docket] application fee shall apply to:

(ii) Exemptions. The [docket] application fee shall not apply to:

(2) Annual monitoring and coordination fee.

(i) Except as provided in paragraph (b)(2)(ii) of this section, an annual monitoring and coordination fee shall apply to each active water allocation or wastewater discharge approval issued pursuant to the Compact and implementing regulations, regardless of whether the approval was issued by the Commission in the form of a docket, permit or other instrument, or by a Signatory Party Agency under the One Permit Program rule (§ 401.42). The fee shall be based on the amount of a project’s approved monthly water allocation and/or approved daily discharge capacity.

(3) (v) A project involves treatability studies for the discharge of wastewater.

(4) ***

(iii) Modification of a DRBC approval. Following Commission action on a project, each project revision or modification that the Executive Director deems substantial shall require an additional [docket] application fee calculated in accordance with paragraph (e) of this section and subject to an alternative review fee in accordance with paragraph (b)(3) of this section.

(c) Indexed adjustment. On July 1 of every year, beginning July 1, 2017, all fees established by this section will increase in commensurate with any increase in the annual April 12-month Consumer Price Index (CPI) for Philadelphia, published by the U.S. Bureau of Labor Statistics during that year. In any year in which the April 12-month CPI for Philadelphia declines or shows no change, the [docket] application fee and annual monitoring and coordination fee will remain unchanged. Following any indexed adjustment made under this paragraph (c), a revised fee schedule will be published in the Federal Register by July 1 and posted on the Commission’s website. Interested parties may also obtain the fee schedule by contacting the Commission directly during business hours.

(e) ***

TABLE 1 TO § 401.43 – [DOCKET] APPLICATION [FILING] FEES

<table>
<thead>
<tr>
<th>Project Allocation Fee</th>
<th>[Docket] Application Fee</th>
<th>Fee Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Allocation</td>
<td>$405 per million gallons/month of allocation, not to exceed $15,190. Fee is doubled for any portion to be exported from the basin.</td>
<td>Greater of: $15,190 or Alternative Review Fee</td>
</tr>
</tbody>
</table>

Subchapter B – Special Regulations

Part 440 – Hydraulic Fracturing in Shale and Other Formations

§ 440.1 Purpose, authority and relationship to other requirements.

(a) Purpose. The purpose of this part is to protect and conserve the water resources of the Delaware River Basin. To effectuate this purpose, this section establishes standards, requirements, conditions and restrictions to prevent or reduce depletion and degradation of surface and groundwater resources and to promote sound practices of water resource management.

(b) Authority. This part implements Sections 1.5, 3.6(b), 3.8, 4.1, 5.2, 7.1, 13.1 and 14.2(a) of the Delaware River Basin Compact.

(c) Comprehensive plan. The Commission has determined that the provisions of this part are required for the immediate and long range development and use of the water resources of the basin and are therefore incorporated into the Commission’s comprehensive plan.

(d) Relationship to other Commission requirements. The provisions of this part are in addition to all applicable requirements in other Commission regulations, dockets and permits.

On the effective date of this rule, the Executive Director Determinations dated May 19, 2009, June 14, 2010 and July 23, 2010, to the extent not already superseded by the Commission’s Resolution dated December 8, 2010, are no longer operative.

(e) Severability. The provisions of this part are severable. If any provision of this part or its application to any person or circumstances is held invalid, the invalidity will not affect other provisions or applications of this part, which can be given effect without the invalid provision or application.

(f) Coordination and avoidance of duplication. In accordance with and pursuant to section 1.5 of the Delaware River Basin Compact, to the fullest extent it finds feasible and advantageous the Commission may enter into an Administrative Agreement (Agreement) with any basin state or the federal government to coordinate functions and eliminate unnecessary duplication of effort. Such Agreements will be designed to: effectuate

1 Subject to an annual adjustment in accordance with paragraph (c) of this section.

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1 Subject to an annual adjustment in accordance with paragraph (c) of this section.

TABLE 2 TO § 401.43 – ANNUAL MONITORING AND COORDINATION FEE

<table>
<thead>
<tr>
<th>Water Allocation Fee</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$304</td>
<td>&lt;4.99 mgm</td>
</tr>
<tr>
<td>$456</td>
<td>5.00 to 49.99 mgm</td>
</tr>
<tr>
<td>$658</td>
<td>50.00 to 499.99 mgm</td>
</tr>
<tr>
<td>$835</td>
<td>500.00 to 9,999.99 mgm</td>
</tr>
<tr>
<td>$1,013</td>
<td>&gt; or = to 10,000 mgm</td>
</tr>
</tbody>
</table>

Wastewater Discharge Fee

<table>
<thead>
<tr>
<th>Wastewater Discharge Fee</th>
<th>Discharge Design Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$304</td>
<td>&lt;0.05 mgd</td>
</tr>
<tr>
<td>$618</td>
<td>0.05 to 0.99[1] mgd</td>
</tr>
<tr>
<td>$830</td>
<td>1 to 9.99[10] mgd</td>
</tr>
<tr>
<td>$1,013</td>
<td>&gt; or = to[10] mgd</td>
</tr>
</tbody>
</table>

1 Subject to an annual adjustment in accordance with paragraph (c) of this section.
intergovernmental cooperation, minimize the efforts and duplication of state and Commission staff and, whenever possible, ensure compli-
cance with Commission-approved requirements, enhance early notification
of the general public and other interested parties regarding proposed activi-
ties in the basin, indicate where a host state’s requirements satisfy the Com-
mmission’s regulatory objectives and clarify the relationship and proj-
ect review decision making processes of the states and the Commission
for projects subject to review by the states under their state authorities and
by the Commission under Section 3.8 and Articles 6, 7, 10 and 11 of the
Compact.
§ 440.2 Definitions.
For purposes of this part, the following terms and phrases have the
meanings provided. Some definitions differ from those provided in regula-
tions of one or more agencies of the Commission’s member states and
the federal government.
Basin - the area of drainage into the Delaware River and its tributaries,
including Delaware Bay.
Centralized waste treatment (CWT) facility - as defined by EPA at 40
CFR 437.2(c), any facility that treats (for disposal, recycling or recovery
of material) any hazardous or non-hazardous industrial wastes, hazardous
or non-hazardous industrial wastewater, and/or used material received
from off-site. “CWT facility” includes both a facility that treats waste
received exclusively from off-site and a facility that treats wastes gener-
ated on-site as well as waste received from off-site.
Commission - the Delaware River Basin Commission (DRBC) created
and constituted by the Delaware River Basin Compact.
Conservative Substances - pollutants that undergo no or minimal
transformation or decay in a water body or groundwater, except by dilution.
CFR 437.2(c), any facility that treats (for disposal, recycling or recovery
of material) any hazardous or non-hazardous industrial wastes, hazardous
or non-hazardous industrial wastewater, and/or used material received
from off-site. “CWT facility” includes both a facility that treats waste
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Commission - the Delaware River Basin Commission (DRBC) created
and constituted by the Delaware River Basin Compact.
Conservative Substances - pollutants that undergo no or minimal
transformation or decay in a water body or groundwater, except by dilution.
CWT wastewater – For purposes of this part, “CWT wastewater” means
any wastewater or effluent resulting from the treatment of produced water
by a CWT.
Docket - a legal instrument issued by the Commission approving, or
approving as modified, a project having a substantial effect on water re-
sources of the basin. The approval may modify the project by imposing
conditions to prevent the project from substantially impairing or conflict-
ing with the Commission’s comprehensive plan.
Domestic wastewater - liquid waste that contains pollutants produced
by a domestic residence or residences or by a non-residential facility that
generates wastewater with the same characteristics as residential
wastewater.
Executive Director - the Executive Director of the Delaware River Basin
Commission.
Flowback - fluids returned to the surface through an oil or gas well
once hydraulic fracturing pressure is released. Flowback can also refer to
the stage of well completion in which fluids are returned to the surface
through the well after fracturing is performed.
Groundwater - includes all water beneath the surface of the ground.
Hydraulic Fracturing - a technique used to stimulate the production of
oil and gas from a well by injecting fracturing fluids down the wellbore under
pressure to create and maintain induced fractures in the hydrocarbon-bearing
rock of the target geologic formation.
High-volume hydraulic fracturing (HVHF) - hydraulic fracturing using
a combined total of 300,000 or more gallons of water during all stages in
a well completion, whether the well is vertical or directional, including hor-
izontal, and whether the water is fresh or recycled and regardless of the
chemicals or other additives mixed with the water.
Fracturing fluid(s) - a mixture of water (whether fresh or recycled)
and/or other fluids and chemicals or other additives, which are injected
into the subsurface and which may include chemicals used to reduce fric-
tion, minimize biofouling of fractures, prevent corrosion of metal pipes or
remove drilling mud damage within a wellbore area, and propping agents
such as silica sand, which are deposited in the induced fractures.
Person - any natural person, corporation, partnership, association,
company, trust, federal, state or local governmental unit, agency, or author-
ity, or other entity, public or private.
Pollutants - any substance which when introduced into water resources,
including surface water or groundwater, degrades natural or existing water
quality, including but not limited to: dredge spoils, solid waste, incinerator
residue, sewage, garbage, sewage sludge, munitions, chemicals and chemi-
cal waste, biologic materials, radioactive materials, methane, heat,
reckless or discarded equipment, rock, sand, sediment, cellar dirt, and
industrial, municipal or agricultural waste as well as any substance defined
as a pollutant, contaminant or hazardous substance by any federal or state
statute or regulation.
Pollutants of concern - conservative, radioactive, toxic or other sub-
stances which are potentially present in produced water, consisting of all
parameters listed in the EPA Technical Development Document for the Ef-
fluent Limitations Guidelines and Standards for the Oil and Gas Extrac-
tion Point Source Category (June 2016), specifically all pollutants for produced water listed in Table 1: C-13, C-15, C-17, and C-19.
Produced water - the water that flows out of an oil or gas well, typically
including other fluids and pollutants and other substances from the hydrocarbon-bearing strata. Produced water may contain “flowback”
fracturing fluids and any chemicals injected during the stimulation
process, formation water, and contaminants leached from the geologic
formations. For purposes of §§ 401.35(b)(18) and 440.5, the term
“produced water” encompasses untreated produced water, diluted pro-
duced water, and produced water mixed with other wastes.
Wastewater treatment facility - any facility treating and discharging
wastewater.
Water resource(s) - water and related natural resources in, on, under,
and above the ground, including related uses of land, which are subject to ben-
eficial use, ownership or control within the hydrologic boundary of the
Delaware River Basin.
§ 440.3 High volume hydraulic fracturing (HVHF)
(a) Determination. The Commission has determined that high volume
hydraulic fracturing poses significant, immediate and long-term risks to
the development, conservation, utilization, management, and preservation of
the water resources of the Delaware River Basin and to Special Protec-
tion Waters of the basin, considered by the Commission to have exception-
ally high scenic, recreational, ecological, and/or water supply values.
Controlling future pollution by prohibiting such activity in the basin is required
to effectuate the comprehensive plan, avoid injury to the waters of the
basin as contemplated by the comprehensive plan and protect the public
health and preserve the waters of the basin for uses in accordance with the
comprehensive plan.
(b) Prohibition. High volume hydraulic fracturing in hydrocarbon bear-
ing rock formations is prohibited within the Delaware River Basin.
§ 440.4 Exportation of water for hydraulic fracturing
As set forth in Section 2.30 of the Water Code (incorporated by refer-
ce at 18 CFR Part 410), it is the policy of the Commission to discourage the
exportation of water from the Delaware River Basin. Accordingly, the
diversion, transfer or exportation of water from sources within the basin to
support hydraulic fracturing outside the basin is discouraged. The transfer
of surface water, groundwater, treated wastewater or mine drainage water,
at any rate or volume, for utilization in hydraulic fracturing or in hydrocarbon
bearing rock formations outside the basin requires Commission approval
in the form of a docket and shall be subject to the evaluation described by
section 2.30.4 of the Water Code.
§ 440.5 Produced water
(a) Related Commission Policies
(1) It is the policy of the Commission to discourage the importation
of produced water into the basin (see Section 2.30.2 of the Delaware River
(2) It is the policy of the Commission to give no credit toward meet-
ing wastewater treatment requirements for wastewater imported into the
basin (see Section 2.30.2 of the Delaware River Basin Water Code,
(3) The Commission has determined (see Resolution 2000-4) that al-
locations of the waste assimilative capacity of the Delaware River Estuary
are necessary to maintain stream quality objectives for acute toxicity and
chronic toxicity in Water Quality Zones 2, 3, 4 and 5 and for 1.2 dichloro-
ethylene and tetrachloroethylene in Water Quality Zones 2 and 3.
(4) It is the policy of the Commission that there be no measurable
change in existing water quality except towards natural conditions in
waters considered by the Commission to have exceptionally high scenic,
recreational, ecological, and/or water supply values. Waters with excep-
tional values may be classified by the Commission as either as either
Significant Waters or Significant Resource Waters. (See Section 3.10.3.2 of
the Delaware River Basin Water Code, incorporated by reference at 18 CFR
Part 410).
(5) Effluents shall not create a menace to public health or safety at the
point of discharge. (See Section 3.10.4 of the Delaware River Basin Water
(6) The underground water resources of the basin shall be conserved,
developed, managed, and controlled in view of the needs of present and future
generations, and in view of the resources available to them. Any activities
that impaired, damaged or destroyed them shall be subject to review and
evaluation under the Compact. (See Section 2.20.6 of the Delaware River Basin Water Code,
(b) Approval required. Produced water and CWT wastewater as defined
in this part may not be imported into the basin except by a new or existing
wastewater treatment facility located within the basin, and may not be
transferred to, treated by or discharged from or to a new or existing
wastewater treatment facility located within the basin, at any volume or
rate, except in accordance with an approval in the form of a docket issued by the Commission to the owner or operator of the wastewater treatment facility pursuant to Section 3.8 of the Compact or in accordance with a state permit issued pursuant to a duly adopted administrative agreement between the Commission and the host state.

(c) Alternatives and impact assessments. Any project involving the importation of produced water or CWT wastewater into the basin shall be subject to the requirement that alternatives involving no importation must be analyzed and the water resource, economic and social impacts of the project evaluated, as described in section 2.30.4 of the Commission’s Water Code.

(d) Compliance with existing rules. In addition to the requirements in this part, all discharges within the basin of produced water and CWT wastewater as defined in this part must comply with applicable DRBC Water Quality Regulations (incorporated by reference at 18 CFR Part 410), state regulations and federal regulations. If a conflict exists among the applicable regulations, the more stringent requirement shall apply to these discharges.

(e) Treatment facilities.

(1) Produced water as defined in this part:
   (i) may not be treated within the basin except at a centralized waste treatment facility (CWT) as that term is defined by the U.S. Environmental Protection Agency in 40 CFR part 437 (to convert it to CWT wastewater); and pursuant to an approval issued in accordance with section 440.5(b) of this part.
   (ii) may not be discharged within the basin without treatment at a CWT.

(2) CWT wastewater as defined in this part may be discharged only:
   (i) directly by the CWT pursuant to an approval issued in accordance with section 440.5(b) of this part; or
   (ii) indirectly by a CWT to a wastewater treatment facility within the basin (via sewer, truck or other means) pursuant to an approval issued in accordance with section 440.5(b) of this part,
   (iii) provided that the discharge meets the requirements of sections 440.5(f) through (h) of this part.

(f) Treatability studies. The Commission shall not issue any required docket or approval for the treatment of produced water or the discharge of CWT wastewater unless the project sponsor has identified each proposed source of the produced water or CWT wastewater and has submitted to the Commission a treatability study (or studies) prepared by a professional engineer licensed in the state(s) in which the treatment and discharge facilities are located, demonstrating that:

(1) an analysis, characterization and quantification of all pollutants of concern, as that term is defined in section 440.2 of this part, has been conducted and the results submitted to the Commission;
(2) the acute and chronic toxicity of the waste, measured as Whole Effluent Toxicity (WET), have been evaluated;
(3) the treatment technologies and applicable design criteria to be used to meet all requirements of section 440.5(g) of this part have been identified;
(4) the produced water (or CWT wastewater) will not pass through or interfere with the facility’s treatment process, and the resulting effluent will meet all applicable limits;
(5) the classification, treatment and disposal of residuals from the facility, if any, will not be adversely affected; and
(6) the discharge will not cause or contribute to an exceedance of applicable water quality criteria or stream quality objectives or impair the existing or protected use of the receiving water.

(g) Additional effluent requirements. Except as provided in paragraph (h) of this section, the following requirements shall apply within the basin to effluent resulting from the treatment of produced water or CWT wastewater. In any instance in which these requirements are deemed to conflict, the more stringent shall apply:

(1) For total dissolved solids (TDS):
   (i) the effluent shall not exceed background or 500 mg/l, whichever is less,
   (ii) provided, however, that in waters that drain to Delaware River Water Quality Zones 4 through 6, the resulting effluent shall not exceed 1,000 mg/l, or a concentration established by the Commission that is compatible with designated uses and stream quality objectives,
   (iii) The Commission will publish guidance on acceptable methods for determining background TDS concentrations.

(2) For waters for which the protected or designated uses include “public water supplies” or “drinking water”, the effluent shall not exceed the more stringent of EPA or the host state’s:
   (i) primary drinking water standards for inorganic chemicals, organic chemicals (excluding acrylamide and chlorophenol) and disinfection byproducts; and
   (ii) secondary drinking water standards (excluding color, corrosivity, and odor).
   (3) For whole effluent toxicity (WET), the effluent shall not exceed 0.3 toxic units (acute) and 1.0 toxic units (chronic).

(h) Point of compliance.

(1) The effluent limitations are to be met at the point of discharge to basin waters.

(2) To ensure that all conditions, requirements and standards under this rule are met, the Commission may impose additional monitoring requirements or other conditions on any CWT within the basin that discharges CWT wastewater as defined in this part to another wastewater treatment facility in the basin.

(3) A mixing zone may be considered for any pollutant for which a mixing zone is permitted in the Delaware River Estuary by the DRBC Water Quality Regulations (incorporated by reference at 18 CFR Part 410).


Dated: December 15, 2017

Pamela M. Bush, J.D., M.R.P.
Commission Secretary

PROPOSED RULE MAKING
NO HEARING(S) SCHEDULED

180 Day Requirement for State Aid Purposes
L.D. No. EDU-01-18-00002-P

PURSUANT TO THE PROVISIONS OF THE State Administrative Procedure Act, NOTICE is hereby given of the following proposed rule:

Proposed Action: Amendment of section 175.5 of Title 8 N.Y.C.R.R.
Statutory authority: Education Law, sections 207, 305, 3001, 3003, 3004 and 3009.
Subject: 180 Day Requirement for State Aid purposes.
Purpose: To clarify the requirement for 180 days of instruction for State aid purposes.

Text of proposed rule: 1. Subparagraph (ii) of paragraph (2) of subdivision (a) of section 80-5.13 is amended to read as follows:

(iii) Employment and support commitment. The candidate shall submit satisfactory evidence of having a commitment from a school or school district of employment as a [full-time] teacher with the school or school district in the area of the certificate sought for at least three school years, which shall include at least one year of [mentoring] full-time teaching experience that is mentored, as prescribed in section 52.21(b)(3)(xvii) or (b)(5) and 80-5.13(b)(1)(ii) of this Title.

Text of proposed rule and any required statements and analyses may be obtained from: Kirti Goswami, NYS Education Department, 89 Washington Avenue, Albany, NY 12234, (518) 474-6400, email: legal@nysed.gov.

Data, views or arguments may be submitted to: Brian Cechnicki, NYS Education Department, Education Building Room 139, Office of State Aid, Albany, NY 12234, (518) 486-2573, email: regcomments@nysed.gov.