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VIA OVERNIGHT

Pamela Bush, Esquire
Commission Secretary
Delaware River Basin Commission
P.O. Box 7360
25 State Police Drive
West Trenton, NJ 08628

Re: **Comments of the Northern Wayne Property Owners' Alliance on the Draft Natural Gas Development Regulations**

Dear Ms. Bush:

Please accept the letter and the accompanying detailed comments prepared by this firm's client, the Northern Wayne Property Owners' Alliance, LLC ("NWPOA"), on the Delaware River Basin Commission's Draft Natural Gas Development Regulations. NWPOA is an association of approximately 1300 families that own land in northeastern Pennsylvania and have leased in excess of 100,000 acres of mineral rights for natural gas development. They have done so in concert in order to achieve careful, environmentally responsible ***development*** of this resource. The responsible, but prompt, development of the natural gas resource is very important to the economic well-being of NWPOA's members and their communities. Without it, many of NWPOA's members will be unable to retain their land, land that has been families at times for generations, and typically in agricultural, forestry, residential, or other rural uses.

NWPOA's members have prepared the accompanying document. What I enclose is not some prose contrived by lawyers in a far away office. It is the work of men and women in the communities of the Upper Delaware Basin. It reflects what they firmly believe, and should be given serious consideration.

NWPOA's enclosed comments are interlineated in a copy of the draft regulations. You may wish to note certain overall themes.

The natural values of the Upper Delaware are obvious and important to all, and especially to NWPOA's members, who live there. But so is the economic vitality of the region. The Delaware River Basin Compact itself recognizes the importance of the natural resources of the Basin to "the government, employment, industry, and economic development of the entire region . . . ." Compact, pt. 1, ¶ 8.

The point of the Compact is to assure sensible economic development. There can be no reasonable dispute that the northeastern Pennsylvania communities within the Basin have lagged economically, both in the recent recession and even before. These are primarily agricultural and rural communities that have had hard times for a long time.

Without a means of making a reasonable return on large land holdings, one cannot expect those holdings to remain intact. Owning scores or hundreds of acres of land that do not produce a reasonable economic return is impossible for working people, no matter how emotionally connected they may be to their property.

The Commission's proposed regulations pose an existential threat to the communities in the region. The Commission's proposed regulations would greatly inhibit development of the natural gas resource simply because they would make gas development more difficult, more uncertain, and more expensive than alternative development in the Susquehanna River Basin, a few miles away. The issue is not whether natural gas development would be possible at all under the proposed rules, but whether exploration and production companies will invest in the Basin when less difficult, less uncertain, and less expensive alternatives exist nearby. The capital and labor necessary to develop gas are mobile. Drill rigs and work crews can move. The land cannot. The communities in Wayne County cannot. They will be left behind.

The Commission should not adopt regulations that make an unfair distinction between land in the Delaware River Basin and land in other nearby, important, special places, like the Susquehanna River Basin. The Commission properly focuses on its own jurisdiction, but no one can believe that the Delaware River and Bay are ***obviously*** more important, more sensitive, or more special than the Susquehanna River and the Chesapeake Bay. Yet, the proposed regulations would impose a materially greater regulatory burden on natural gas development in the Basin than on similar development just to the west.

The Commission would make that unfair distinction by superimposing its regulatory structure over the existing regulations of Pennsylvania and New York. Those states have a long history of regulating natural gas development, and doing so successfully. They have existing, experienced permitting and enforcement staff. Natural gas development has not caused widespread water pollution or environmental harm in either state. Fear is not harm; it is just fear.

The Commission's – and the region's – legitimate interest in preserving the environmental integrity of the Special Protection Waters and the other resources of the Basin can be, and should be, vindicated through the state regulatory processes. There is absolutely no reason to believe that the Pennsylvania Department of Environmental Protection and the New York State Department of Environmental Conservation do not take seriously their obligation to prevent pollution of the sensitive water resources in the Basin. They may be trusted with the tributaries to the Chesapeake Bay, the Great Lakes,

and the Gulf of Mexico. Surely they may be trusted with the Delaware River to the same extent.

Subjecting natural gas development in the Basin to another set of regulations, and putting development through another regulatory review, necessarily makes development in the Basin unlikely. It is an extra step, an extra uncertainty, and an extra cost. Given the substance of the Commission's proposed regulations, that cost and uncertainty would be very high. Adoption of these regulations will dramatically slow or stop natural gas development, and that would be a very grave matter for northeastern Pennsylvania.

The Commission should therefore revisit its approach. The Commission should craft mechanisms to do what it is capable of doing well – regulating water withdrawals and transfers. The Commission should also craft mechanisms to interject into the state processes a serious attention to water quality concerns. The Commission should reserve its ability to participate in the state processes if they go wrong. The Commission should ***not*** establish an overlapping regulatory process that would only serve to stop gas development in the Basin.

NWPOA also feels strongly that the Commission should attend more closely to property rights. Government should only encroach with care on individuals' rights to use their property. No one has the right to maintain a public nuisance on his or her property, and the government can, and should, prohibit nuisances. But gas development is ***not*** a public nuisance. The policy of the United States and of Pennsylvania and New York is to ***promote*** natural gas development. What is a public nuisance is irresponsible, careless natural gas development. State regulations prohibit that. NWPOA's leases prohibit that. Any further restriction on NWPOA's members' rights to use their property as they like cannot be authorized by the Compact. The Compact does not authorize taking private property rights because of a fear that the states will not regulate industrial and extractive activities adequately.

Finally, recent experience suggests that any effort by the Commission to regulate natural gas development will embroil the Commission and its staff in controversy and even formal hearings and appeals. The Commission is not now equipped to handle those proceedings without the proceeding diverting resources needed by the Commission for other tasks. The core work of the Commission is managing water supply in the Basin. The Commission should not take on natural gas regulation. Doing so would impair the Commission's ability to complete its core mission.

For these reasons, and for the reasons stated in detail in the accompanying document, NWPOA respectfully requests that the Commission not adopt the draft regulations as final. Instead, the Commission should regulate water withdrawals as it has in the past, and it should allow natural gas development to proceed under state regulation.

Respectfully submitted,

David G. Mandelbaum

Enclosure

PROBLEMS WITH DRAFT DRBC REGULATIONS

1. **DRBC regulation of any water use for gas, regardless of amount, is discriminatory and works against the compelling economic interests of the Upper Delaware region.** The amount of water use involved in gas drilling is small compared to other uses (e.g., golf courses, car washes, power generation or big city commercial uses). Reducing the regulatory threshold from the normal 100,000 gpd to any amount of water is not supported by the data. The DRBC's assertion that the normal thresholds do not adequately protect water resources and suggestion other uses don't consume water in a like manner are disingenuous. Other users such as power plants, consume far greater quantities of water. Moreover, if water quality and safety are already heavily regulated by the states, and water allocation is not the issue they would have it be, exactly why is it we need the DRBC? There is no compelling answer.

2. **The draft regulations incorrectly construe the task of the DRBC as being limited to the narrow goal of protecting water quality, as if this were all there was to its job.** The page 3 statement of purpose doesn't even hint at the need to allocate water resources, let alone address the economic side of the DRBC mission, which is clearly articulated in Part I of the compact. That provision states "the government, employment, industry, and 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." Section 4.2(a) further states the commission has the power to regulate "flows and supplies of surface and ground waters of the basin, for the protection of public health, stream quality control, economic development, improvement of fisheries, recreation, dilution and abatement of pollution, the prevention of undue salinity and other purposes." Yet, the regulations ignore the economic development side of the equation and maintain the pretense water quality is all there is. Statements of purpose need to be amended to indicate the primary function of the regulations is allocation of water resources for the development of natural gas resources, as a matter of economic development, while preserving water quality for other uses.

3. **Well pad standards are almost wholly redundant with state regulations and unnecessary.** Moreover, such additional standards as are offered are completely unrealistic, particularly the 500 feet setback from water bodies and wetlands. A typical 5-acre well pad would be 467 feet squared in size and a 500 feet buffer around such a pad would require roughly a 40-50 acre site that is free of any water bodies or wetlands. While this might sound reasonable, the definition of water body encompasses seasonal and intermittent depressions, channels, ditches and "similar drainageways," as well as all wetlands. There are virtually no areas (less than 0.5% of the land area) in the Upper Delaware region where 40-50 contiguous acres of land lacking these features can be found. No existing well sites could meet the standard due to the nearby presence of small ponds, streams, ditches, terraces or wetlands.

4. **The variance procedure should be for exceptions and not the rule.** The flawed standards found in Section 7.5 ensure all power is discretionary and in the hands of the Executive Director. Moreover, Section 7.5(b)(9)(iv) gives the Executive Director the power to impose additional conditions in such instances, which will be <u>all</u> instances. This is a recipe for bureaucratic abuse. Additionally, the Approval by Rule provisions on page 55, specifically sub-section (6), require the setbacks to be met. Therefore, Approval by Rule will not be available as an option. It is nothing more than a mirage.

5. **Section 7.5 also ignores the needs of upper basin residents.** Sub-section (a)(1) articulates the

needs of those who live outside the basin but completely excludes any mention of our need, in the Upper Delaware region, to be able to develop our resources. Instead, we are viewed as nothing more than "source watersheds" for others, that, for the benefit of downstream and out-of-basin waters users, cannot be disturbed. The "sparsely populated" explanation on the top of page 36 says it all - our future doesn't matter because there aren't many of us. Where is the balance? Where is the consideration of our needs?

6. **Section 7.5 also asserts, with no evidence, that well pads "may have a substantial impact on the water resources of the basin."** How can this be, if the amount of disturbance is limited to a mere 5-6 acres out of the 640 to 1,280 acres in a unit, and both states already impose extensive (some of the toughest in the nation) stormwater management rules - and, where forested land has grown over the last half-century? There is simply no basis for a statement that well pads could have a substantial impact on water resources of the basin.

7. **If the states are to implement Section 7.5, as suggested, it is unnecessary because there are very few items that are not already regulated and those that are left all relate to land use questions that have also traditionally been under the purview of the states.** The states already regulate floodplain development and do natural diversity searches. There should be no mention of either in these regulations.

8. **The entire purpose of Section 7.5 is to insert the camel's nose under the tent with respect to land use, under the ruse that well pads are something that need to be further regulated, when they are already heavily regulated.** The emphasis, on page 51, on "constraints analysis" and mapping of leaseholds that are constantly changing is further indication of this, as is the statement on page 7 excepting Section 7.5 provisions from state administration (in contrast to earlier suggestions to the contrary). These regulations would set the DRBC up as a super-agency to regulate land use and supersede state environmental regulations. We cannot have still another agency deciding matters of land use in the Upper Delaware region. Section 7.5, therefore, should simply be deleted.

9. **The regulations have been fashioned to serve too many interests at once and are not only redundant with state regulations, but also internally so.** They are not clear and the procedures overlap and are intertwined to such a degree they are sometimes incomprehensible. They are naive in supposing natural gas development is a static rather than dynamic process. They make little allowance for evolution of technology. They establish arbitrary standards and requirements with no foundation in science or industry best practices. They are fee-driven in many places. They are impractical in others. They do not achieve the proper balance between objective standards and discretionary review authority. They include no duty on the part of the DRBC to act in a reasonable time frame. They set the stage for endless controversy.

10. **There is far too much emphasis on pollution, as if it was a given, when it is anything but.** Page 4 includes meaningless buzz words such as "sustainable manner" that have no place in this document. Sub-section (1) perpetuates the myth that protection of water quality is the only foundation for natural gas standards, the only part to water resource management. Finally, what is the point of sub-section (2), which suggests water resource management is matter of linking to the the "management of other resources" and recognition of "social and institutional systems"? Such drivel should be removed.

11. **The language is far too vague and sets the stage for endless future regulation.** What does sub-section (2)(iv) on page 5 mean, for example? Sub-section (3) lays the groundwork for land use management "improving the conditions of water resources." What does this mean? It appears to beg for more back door land use regulation by the DRBC. Sub-section (4) again extols the importance of protecting "instream living resources," "downstream withdrawers" and "environmentally sensitive landscapes" but nothing about the needs of the people of the Upper Delaware to secure water for their livelihood. All these subsections (1 through 4) are extraneous and should be deleted. If kept, they should be revised to exhibit the necessary balance and avoid the meaningless bureaucratic jargon that pervades the document.

12. **There are several excellent provisions that allow for deference to the states, but the exception for Section 7.5 regulations is a land mine that can destroy everything.** This is why it so critical to narrow or delete Section 7.5. Moreover, without knowing precisely what will and will not be addressed by proposed agreements with states, it is impossible to know what standards will actually apply. The language on page 7 needs to be explicit in restricting the DRBC from regulating any activity the states already regulate, without exceptions, loopholes or amorphous language that can be later interpreted to impose multiple layers of redundant regulation.

13. **The definition of Agricultural Land doesn't allow for the the constantly changing patterns of land use and shouldn't be date specific.** The page 8 definition of Best Management Practices should also extend to gas industry best management practices, which may be the best method of addressing several concerns.

14. **Critical habitat discussions have absolutely no place in this set of regulations.** The USFWS and the states already handle this and it falls far outside the scope of what the DRBC should be addressing. It is another open invitation to manipulation of the approval process by those with special interest agendas. Moreover, the statement on page 9 that critical habitat need not actually be habitat at all reveals the opportunity for such manipulation. It should be deleted along with all references to critical habitat in the regulations. This is a matter for the states. The definition of earth disturbance is also far too broad, encompassing normal farm practices and even stockpiling of material, which is ludicrous. It is, likewise, already regulated by the states and should be deleted.

15. **The definition of forested site is poorly worded, includes standards that belong elsewhere and is, once again, date specific, which fails to reflect the continually increasing forestation of the area.** The intent of the page 10 language is, obviously, to avoid forested areas, but this is unnecessary given the natural incentive drillers already have to select unwooded sites and the increasing forestation of the area (which is adding more forest annually - an average of 907 acres per year in Wayne County alone over the last 49 years - than gas drilling will ever remove). It is also counter-productive in incentivizing the consumption of agricultural land and failing to recognize forested ridge land is often where it is most possible to avoid wetlands. Indeed, a detailed analysis of 1,000 acres in Damascus Township by a competent engineering firm found only 4 acres that would meet the 500 feet setback discussed above and those 4 acres (not enough for a well pad, are located on a forested plateau that is impossible to access and impossible to clear under these regulations without variances. The regulations simultaneously push drilling toward and away from forested areas. The DRBC can't have it both ways and this obsession with preserving already growing forest land is absurd. All forest preservation provisions should be deleted. They have no place here.

16. **The definition of high volume fracturing is different from the states and inexplicably set at 80,000 gallons, which is not only a trivial amount, but also completely unjustified by the facts.** Moreover, if fracturing is not limited by these regulations, which do no more than require disclosure that is already occurring, why is there a distinction between low and high volume? The answer is obvious - this is simply an attempt to say fracturing is being regulated, when in fact it is only be made more difficult. Fracturing has never polluted a well, which the DRBC clearly knows, yet is pursuing a policy of classifying fracturing, superseding state regulation of the process and making it more difficult, without doing anything meaningful to change the process. This is, of course, because it doesn't need changing. These classifications are meaningless and should be deleted along with all duplication of state regulation of fracturing.

17. **The definition of Natural Gas Development Project is far too inclusive, encompassing everything from pipelines and compressor stations to "support vehicle tire cleaning" and "dust control on access roads."** This is totally unacceptable and puts the DRBC in charge of activities that can and should be regulated by municipalities and the states (if at all). Since when does the DRBC mission have anything to do with compressor stations or tire cleaning? This is a totally absurd attempt to become the master of everything having to do with natural gas. It cannot stand. The project definition should be limited to the water withdrawals and discharges and to those of 100,000 gallons per day or more. We have gone from this common sense threshold to the point where the DRBC is seriously proposing to regulate dust control, which is simply beyond the pale.

18. **The definition of pollutants, incredibly, lists rock and sand.** This exemplifies the "reach too far" that this set of regulations represents. It is utterly ridiculous and should be corrected.

19. **The regulations have been sloppily in a cut and paste fashion.** In addition to problems identified above with the definition of water body, which is perhaps the single most serious problem with these regulations, the definition uses the arcane term "embayment" which has no applicability to the area in question. Also, sub-section (I)(1)(iii), on page 26, suggests well pad approvals can be deferred to the states, which would good, but this is directly counter to the language of Section 7.5 and on page 7.

20. **There are, incredibly, no time limits on DRBC review of applications.** There are several references on page 17 to time limits imposed on applicants, but where are the time limits on action by the DRBC? The inexcusable delay by the Commission in dealing with the Stone Energy application illustrates the need for such deadlines as a simple matter of ensuring due process for all applicants. We must have accountability and firm deadlines on DRBC action, with deemed approvals in the case of failures to act.

21. **Docket modification procedures and notice requirements are too subjective and far-reaching.** Sub-section (h) on page 18 gives the Executive Director too much arbitrary power, which should be carefully limited. Also, the public notice procedure is almost guaranteed to produce controversy as every landowner within 2,000 feet is required to be given notice, which naturally inspires the belief on their part that they have some standing and right to veto an application in their back yard. It is impossible to reliably notify everyone within that distance and the failure to reach some will become a basis for lawsuits alleging improper notice. Moreover, the regulations are inconsistent as to proof of notice. Such notice should be limited to directly adjoining landowners and notice in local newspapers. Anything more is bureaucratic overkill that will complicate everyone's life for no good reason.

22. **Financial assurance requirements are unnecessary, redundant with state regulation and likely to discourage drilling.** The provisions on page 19 are, once again, an exercise in matters which are properly the purview of the states and have nothing to do with the core mission of the DRBC, which imposes no similar requirements on most other water uses under its jurisdiction. Sub-section (6) on page 20 fails to provide for notice and, therefore, is a violation of due process rights that must be corrected. Moreover, the $125,000 per well financial assurance would, on a 1,280 acre unit pad with 20 wells, require $2.5 million of guarantees. That is clearly excessive. Sub-section (9) on page 21 indicates financial guarantees required by the DRBC will be in addition to state requirements. What possible justification exists for this overkill, especially when the regulations are supposed to defer to the states on most matters? There is none. Indeed, there is a direct conflict between what is stated here and on page 7. There is simply no justification for this and DRBC guarantees should only apply to items not already guaranteed through the states.

23. **The provisions for reducing financial guarantee amounts based upon performance are very good and are practical but do not justify the regulation itself given what the states already do.** Additionally, the provisions on page 24 for "excess financial assurance" are never defined, explained or justified. They are very poorly explained, seem excessive and essentially require every company doing business to contribute to a fund of $25 million, when they may only be engaging in minimal activity, while allowing major operators to cap their expenditures at some proportion of the $25 million. The whole section is obtuse and of dubious value. It needs complete reworking.

24. **The Natural Diversity Index provisions duplicate what states are already doing and involve the DRBC in something where it adds no value and has no business being involved.** There should be no separate Natural Diversity Index Assessment (see pages 27, 31, 42 and 55) and no fee for it, as the states already do this and any suggestions to the contrary only confuse matters and raise the possibility of DRBC duplication and interference. This is far outside the core mission of the DRBC, yet it comes up again and again in the regulations as if it were not already being performed by the states, suggesting an ulterior motive of frustrating well development.

25. **The regulations appear fee driven and are one-sided in their application.** Sub-section (5) on page 27 relating to alternative fees should work both ways and allow for the same approach when costs are likely to be <u>less</u> than standard fees. Otherwise, this is an invitation to open-ended fees. Also, on page 29, what does the $2,000 fee apply to - each well, each pad or each company's program? This is unclear and should be addressed.

26. **The violation reporting system is ripe for abuse, requiring an investigation and mitigation plan in the case of virtually any complaint.** There needs to be a method of dismissing frivolous complaints. The language on page 32 is far too loose. Also, sub-section (ii), on page 46, needs a mechanism for discouraging such complaints.

27. **The provision proscribing use of any water not approved by the DRBC is not reasonable.** A landowner with a pond on their property, for example, ought to be able to supply up to a specified amount of that water without DRBC approval, as is the case now for several other water uses than can easily require more water than gas development. The language on page 35 would not permit this.

28. **The regulations make misleading and extraneous unsupported statements about the amount of drilling that is expected to place, as if to justify over-the-top regulations.** The statements in sub-section (b)(1), on page 35, to the effect "thousands" of natural gas projects are expected, is not warranted and very inappropriate. Major companies are estimating no more than 300 projects in Northern Wayne County, which is the primary gas region. It could be far less. There is no need for hyperbole in these regulations and all guesses as to the number of projects should be deleted. Likewise, it is not clear compressor stations will have any impact on water resource management and they should be deleted from the list.

29. **The regulations are stretched to the limit in a search for legitimacy.** They also fail to account for advances in technology that are rapidly reducing the impact of natural gas drilling. The justifications made today for regulations are even less likely to be legitimate five years from now than today. The regulations need to anticipate this and allow for the future reduction in the scope of regulations as advances are made. We should not be handicapped in the future with levels of regulation based on today's technology and impacts. Revisions along this line are needed today - that is to say flexibility is needed now to reduce regulations later, if there are no longer circumstances warranting them.

30. **The regulations make long-term assumptions that are highly questionable.** Is it true, for example, that no portion of the water used for gas projects will be returned to the aquifer or surface water? It may be today, but will that be the case tomorrow as recycling of the water used becomes more common and water treatment processes are improved?

31. **The regulations inappropriately insert the DRBC into private contracts.** Is it necessary to interfere to this degree with contracts between private parties, as set forth in sub-section (vii) on page 38 and later on page 40?

32. **Pass-by flow requirements reveal the inherent discrimination, these regulations, against natural gas drilling as compared to other water uses.** The pass-by flow requirements on page 39 give a lot of attention to what is a minimal water use and do not take into account the much greater distortions of flow rates related to New York City's withdrawals of water from the basin. Natural gas is made the lowest priority, while out-of-basin consumption by the City has a much greater impact. This is inherently unfair and suggests the DRBC needs to put much more pressure on New York City as a means of securing more water for gas. The City withdrawals are controllable and should be addressed as part of a comprehensive solution to make room for gas.

33. **Special protection waters designation should not be a club with which to beat down the economic development of the upper basin.** The language of sub-section (2)(i), on page 41, seems to require additional planning due to special protection waters designations. However, non-point source pollution control is already done by the states. Additionally, the Upper Delaware region should not be punished for having clean water, which is what this section seems to suggest.

34. **The regulations include unusual provisions that have only a tangential relationship to gas drilling.** The invasive species provisions on page 43 seem unnecessary and atypical of what is required with other water uses but, in any case, may well require the use of the very chemicals that many anti-drilling advocates despise. This provision need to be justified or deleted.

35. **Water well monitoring is part of the continuous monitoring that is far preferable to any cumulative impact analysis.** The water well monitoring provisions on page 46 should specify a distance of no less than 1,000 feet.

36. **The standards are ambiguous with respect to what is subject to state regulation and what is not.** Why are setbacks listed as "defer to host state" on page 49, for example? Simply eliminate them. Otherwise it must be assumed the other standards supersede the state standards.

37. **The Natural Gas Drilling Plan could offer a useful mechanism for streamlining approvals but is written awkwardly and is unworkable in its current format.** Language on page 50 assumes a company's land interest will be relatively contiguous, but they may not be at all. Also, some companies may hold positions in both Marcellus and Utica Shales in different areas of the basin. Moreover, these positions are constantly changing. This entire process needs more thought and more flexibility. As written, it is far too complicated and bureaucratic in nature. It can easily become an obstacle to approvals and is still another open door to unwarranted land use regulation. It should not be drafted as a set of umbrella standards or a back door cumulative impact analysis (both of which are impractical and bound to become outdated and outmoded by technology the day they are adopted) but, rather, as a means of streamlining approvals and accomplishing continuous ongoing monitoring, which is far more important than any speculative cumulative impact study. If the plan indicated that less than, say, 2% of current forest cover were expected to be removed and this allowed for Approval by Rule of all well pads and facilities noted on the NGPD, this might provide a more workable system with appropriate incentives.

38. **The regulations require too much extraneous data be submitted with applications.** There is no reason to identify slopes between 15% and 20% slope or to map critical habitat, as required on page 53. The former aren't strictly regulated and the latter is outside the core DRBC mission. There is, likewise, no need to map forested areas as required on page 54 (forests are anything but threatened, as noted above) or natural heritage areas. More importantly, the relevance of mapping them for constantly changing leased areas is not at all apparent. The obsession with forest cover on page 55 and elsewhere, despite such cover increasing in acreage every year, is not warranted and the preference for sites that are not forested should be deleted, They will be naturally preferred but forested sites have advantages in certain circumstances and there is simply no threat involved when forestland is increasing as it is today. Likewise, the preference for sites under 15% slope is arbitrary and eliminates all potential sites if other setbacks are also to be addressed. Also, why are lease area maps (see page 56) necessary? This is not the business of the DRBC and such maps are constantly changing. Finally, why is the DRBC requiring a circulation plan over which it has zero authority to enforce? This is a inexcusable grabbing of authority from states and localities that reveals a mania for control over every aspect of gas drilling by an empire-building agency with delusions of grandeur.

39. **The regulations incorrectly assume all gas drilling water use is consumptive.** The water conservation provisions on page 58, while good, raise the question of how water used for gas production is 100% consumptive, as implied earlier, if the water is to be recycled.

40. **Stormwater management is already heavily regulated by both New York and Pennsylvania and should not be further complicated by the DRBC interjecting itself in this process.** The stormwater provisions at the top of page 60 are redundant with state regulations. The mitigation

provisions are redundant with earlier provisions of these regulations.

41. **The regulations unfortunately contribute to the fallacy that fracking threatens water well supplies.** Provisions on page 61 for water well monitoring are good, but for reasons having nothing to do with fracking, as suggested by the title. We don't need to further confuse shallow gas migration, which is the real reason for this monitoring, with fracking, as the Dimock case has already done via the deliberate distortions of anti-drilling advocates.

42. **There should be an incentive for use of closed loop systems.** Such systems should be more easily permitted and this is the type of criteria that should qualify applicants for Approval By Rule approvals, as opposed to the poorly thought out site requirements laid out earlier. The regulations on page 65 and 66 also need to provide for some on-site treatment via the portable treatment units GE is now producing and/or such innovative measures as using wood chips to absorb fluids, which chips are then hauled off-site and burned in units with scrubbers.

43. **The combination of several definitions, literally interpreted, would have the potential to regulate forestry and farming out of existence in the upper Delaware River basin, with no supporting evidence that they have caused a water quality problem.** The earth disturbance activity definition includes anything that "disturbs the surface of the land." This should be more specific such as break the sod layer or organic layer of the soil so mowing, brushhogging or cutting trees are not held to be disturbance, as no other regulatory definition considers these activities to be earth disturbance. Similarly, the disturbed area definition is ecological rather than focused on erosion/sedimentation is much too broad. It also states "disturbed area is devoid of trees greater than 5 meters in height and substantially devoid of native woody vegetation." This definition would include hay fields, lawns, shrub/sedge wetlands, warm season grass plantings, and the like even though they have stable vegetative cover. The final site restoration definition states the site needs to be returned to its "condition prior to the commencement of gas drilling operations" rather than a stable vegetative cover as provided by the Pennsylvania DEP, for example. This could mean an access road through a forest to a pad would have to be abandoned and reforested over the objections of landowner and contrary to any measurement of risk or violation of the Clean Water Act. Finally, the forested site definition is "any parcel of land…within a forested landscape, or that is substantially covered by tree canopy as shown on state ortho-photography prior to January 2010, and which will require removal of 3 or more acres of tree canopy, for the project." There is no stated measure of forested landscape and, therefore, this could be interpreted to treat a 65% forested landscape as encompassing all parcels within that landscape that include any small patches of forest. In combination, these definitions could rule out virtually all of northern Wayne County for gas drilling, again with no documentation of any impact or potential violation of Clean Water Act regulations. Buffers elsewhere should protect surface water and there is no evidence that clearing potentially 1-2% of forest canopy will have any impact on Delaware River, especially when the area is gaining forest cover every year. If the retort is that these definitions do not apply to forestry and farming then why should they apply to gas?

    Also, the wetlands definition again seems to be an ecological definition with no minimum area and would allow wetlands to be continuously created by anyone wishing to pursue the 500' buffer restriction.

44. **Projected water use for gas drilling is minimal but the industry is treated as if it were a major water user.** Water use should be evaluated and compared with other industries, land uses, and baseline flows. There are far too many "significant" or "potential" qualifiers of impact strewn throughout the document to justify complete control over water use by the gas industry. A quick calculation reveals the water falling on the upper third of the Delaware River watershed during a single 1" rain event could provide the water required to drill almost 16,000 wells, far more than will ever be drilled in the upper basin.