NRDC
THE EARTH'S BEST DEFENSE

NATURAL RESOURCES DEFENSE COUNCIL

December 31, 2009

New York State Department of Environmental Conservation
Attn: dSGEIS Comments
Bureau of Oil & Gas Regulation
Division of Mineral Resources
625 Broadway, Third Floor
Albany, NY 12233-6500

Re: *Comments on Draft Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program*

Dear Sir or Madam:

The Natural Resources Defense Council, Inc. ("NRDC") submits these comments to the New York State Department of Environmental Conservation ("NYSDEC") on the Draft Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program, Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs, dated September 2009 ("DSGEIS").

NRDC is a national, non-profit legal and scientific organization that has been active on a wide range of environmental issues since the organization was founded in New York in 1970. Although we have grown to an international organization with six offices and almost 400 staff, we retain a team of lawyers, scientists and other specialists devoted exclusively to safeguarding New York's environment and to improving the quality of life for the State's residents, including our almost 100,000 members and activists who are New Yorkers. Over the past 40 years, NRDC has reviewed and commented on innumerable federal and state environmental impact statements.

NRDC's fundamental conclusion following its thorough and careful review of the DSGEIS is that it is so fatally flawed that it must be withdrawn and the environmental review process must be commenced anew. Simply put, the document fails to demonstrate that drilling in the Marcellus Shale can proceed without putting New York's natural resources and the health and safety of its residents at serious risk. Therefore, it would be not only grossly irresponsible but illegal if the New York State Department of Environmental Conservation ("NYSDEC")

were to proceed with permitting drilling in the Marcellus Shale on the basis of the DSGEIS in its current form.

Detailed technical comments prepared on behalf of NRDC and its partner organizations (Earthjustice, Inc., Riverkeeper, Inc., and Catskill Mountainkeeper) by a team of leading national environmental review and scientific experts (AKRF, Inc., CEA Engineers, P.C., Harvey Consulting, LLC, Professor Glenn Miller, and Dr. Tom Myers) are being submitted under separate cover and are incorporated herein by reference. In addition, enclosed are comments directed particularly to the potential impacts of shale development on municipalities and localities prepared on behalf of NRDC by Sive, Paget & Riesel, P.C., a leading environmental law firm specializing in environmental review in New York, which are also incorporated herein by reference.

We submit these additional comments to underscore and provide greater detail on several items addressed by NRDC's consultants.

The DSGEIS Is Fatally Flawed and Must Be Withdrawn

As reflected in the discussion below as well as in NRDC's expert technical comments, the DSGEIS fails to comport with the requirements of the State Environmental Quality Review Act ("SEQRA") in numerous critical respects. As such, the DSGEIS is incompetent to serve as the basis for a permitting program for development of the Marcellus Shale or other low permeability formations in New York State. Nor can these deficiencies, given their number and character, be adequately addressed during the transition to a final document. *See Webster Assocs. v. Town of Webster*, 59 N.Y.2d 220, 228 (1983) ("[T]he omission of a required item from a draft EIS cannot be cured simply by including the item in the final EIS."). Rather, significant new and revised analyses must be performed. NYSDEC must therefore withdraw the DSGEIS and prepare a new draft document containing all legally required analyses.

The DSGEIS Fails to Evaluate Potential Cumulative Impacts

The first critical flaw of the DSGEIS is its failure to evaluate potential cumulative impacts as mandated by SEQRA and its implementing regulations. NYSDEC's SEQRA regulations require the preparation of a cumulative impact assessment when, even if no single project's impact is significant, the aggregated impacts from multiple actions may be significant. 6 N.Y.C.R.R. § 617.7(c)(2) ("agency must consider reasonably related long-term, short-term, direct, indirect and cumulative impacts"). This is precisely the scenario presented in the case of development of the Marcellus Shale. Even if it were the case that the development of any single well pad might not result in significant adverse environmental impacts (which, as reflected in the accompanying technical comments, is not the case), it is evident that widespread development on a local, regional, and/or statewide basis throughout the shale has the potential to result in such cumulative impacts. Thus, a

cumulative impact assessment is necessary to assess and disclose any potential significant adverse impacts from a full-build scenario, and to identify and propose mitigation to address such impacts. The DSGEIS fails utterly to do so.

Although the DSGEIS acknowledges that gas drilling in the Marcellus Shale will have cumulative impacts on the surrounding environment (DSGEIS at 6-145), the document fails to contain any meaningful assessment of cumulative impacts, relying on three legally and/or scientifically invalid bases: (1) the improper claim that it is "too difficult" to determine where and at what rate development will occur; (2) the improper dismissal of so-called "qualitative" cumulative impacts, e.g., community character and visual impacts, while also ignoring quantifiable (but not quantified in the DSGEIS) cumulative impacts; and (3) the improper reliance on the1992 GEIS' supposed consideration of cumulative impacts based on denser 40-acre spacing.

First, the DSGEIS claims that it is essentially impossible to evaluate cumulative impacts because "[t]he timing, rate and pattern of development, on either a statewide or local basis, are very difficult to accurately predict." (DSGEIS at 6-145.) This statement flies in the face of its own previous recitation of precisely the sorts of available and/or reasonably surmised data that would permit it to do so, e.g., the rate of development in other shale gas states, the numbers of available workers and equipment, and historical market trends. (*Id.* at 6-143 to 6-145.)

DEC's failure to attempt to estimate the rate of development or to assess impacts also is counter to its own regulations and guidance. SEQRA's implementing regulations state that a generic EIS can "present and analyze in general terms a few hypothetical scenarios that could and are likely to occur." 6 N.Y.C.R.R. § 617.10(a). NYSDEC's own SEQR Handbook suggests that these hypothetical scenarios be included. NYSDEC, *SEQR Handbook* at § H(9) (2009). As a matter of established law, and as discussed further in the accompanying technical comments from AKRF concerning well-established SEQRA practice, it is elemental that the DSGEIS must make, at the very least, a reasonable worst-case prediction of maximum development in the state and prepare an analysis of regional and/or statewide cumulative impacts on that basis. The failure of the DSGEIS to do so renders it fatally flawed.

Second, NYSDEC claims that a cumulative impact assessment is unnecessary to determine whether there should be mitigating limits on development essentially because it is impossible to establish thresholds for significance for impacts that are "qualitative" in nature, i.e., noise, visual and community character impacts. (DSGEIS at 6-145 to 6-146.) Initially, this contention ignores the fact that noise impacts – as well as others that collectively make up community character, such as traffic – are readily quantifiable. (*See* accompanying report of AKRF.) Moreover, it fails to recognize that even "qualitative" impacts are routinely evaluated for a determination of significance as a matter of law.

Perhaps more importantly, NYSDEC's own regulations explain exactly how an evaluation of phasing to mitigate cumulative impacts of a large-scale or long-term project (like development of a natural gas resource across the state) should be accomplished. *See* 6 N.Y.C.R.R. § 617.10(c); *see also id.* § 617.10(e) ("In connection with projects that are to be developed in phases or stages, agencies should address not only the site specific impacts of the individual project under consideration, but also, in more general or conceptual terms, the cumulative impacts on the environment and the existing natural resource base of subsequent phases of a larger project or series of projects that may be developed in the future. In these cases, this part of the generic EIS *must* discuss the important elements and constraints present in the natural and cultural environment that may bear on the conditions of an agency decision on the immediate project." (emphasis added)).

Third, NYSDEC claims that no regional cumulative assessment is necessary because the 1992 GEIS analyzed the cumulative impacts of development based on 40-acre spacing, which is denser than the 640-acre spacing required for Marcellus Shale development. (DSGEIS at 6-143 to 6-144.) This justification fails for at least three reasons. First, the 1992 GEIS contained virtually no cumulative impacts assessment and certainly not one that satisfies the mandates of SEQRA.

Second, while the higher density of 40-acre spacing might arguably result in fewer *surface* impacts, it has no bearing on the myriad increased impacts associated with the vastly greater amounts of water and fracking fluids utilized in or wastewater generated by high-volume hydraulic fracturing using multiple horizontal wells per well pad in the Marcellus Shale – the precise basis on which NYSDEC determined a supplemental GEIS was necessary. All of the increased impacts would, of course, be even more significant on a cumulative basis than on the single well pad basis, and thus the meager 1992 analysis cannot plausibly serve as the basis of estimation for the cumulative impacts of developing the Marcellus Shale.

And, lastly, this justification completely ignores the potential for in-filling with vertical wells within the Marcellus Shale to access gas not fully developed using horizontal wells. (DSGEIS at 5-19.)

For all of these reasons, NYSDEC has failed utterly to comply with the requirements of SEQRA and its own implementing regulations to prepare a meaningful cumulative impact assessment.

The DSGEIS Fails to Properly Consider Alternatives to the Proposed Action

A second fatal shortcoming of the DSGEIS is its failure to meaningfully evaluate possible alternatives to the proposed action that would result in fewer unmitigated significant adverse environmental impacts. The DSGEIS purports to consider three alternatives to the proposed action, i.e., development of the Marcellus Shale without limitation: (1) a "Prohibition Of Development" alternative, (2) a "Phased Permitting Approach" alternative, and (3) a "Green Or Non-Chemical

Fracturing Technologies And Additives" alternative. (DSGEIS, Chap. 9.) None of these analyses meets the requirements of SEQRA. ECL § 8-0109(2)(d); 6 N.Y.C.R.R. § 617.9(b)(5)(v). We address each of these three purported alternatives in turn.

Failure to Properly Evaluate an Alternative with Partial Prohibitions on Development

The DSGEIS contains what it describes as a "Prohibition Of Development" alternative, which is apparently intended to serve as the required "no action" alternative. (DSGEIS § 9.1.) Initially, a proper formulation of the no action alternative would not be a prohibition on all development in the Marcellus Shale. Rather, it would be based on an assumption that a permitting program for development of the Marcellus Shale would proceed under the existing regulatory program for oil and gas development. Because the Governor has imposed a temporary moratorium on development of the Marcellus pending completion of the SEQRA process, a decision to proceed at that point without creating a new regulatory approach for development of the Marcellus – i.e., the no action alternative – would equate to a return to permitting under the extant structure rather than imposition of a permanent prohibition of development of the Marcellus. The DSGEIS thus fails to comport with NYSDEC's own SEQRA regulations requiring consideration of a no action alternative. 6 N.Y.C.R.R. § 617.9(b)(5)(v).

The "Prohibition Of Development" analysis fails, moreover, to properly evaluate the impacts of this alternative, including whether imposition of one or more partial prohibitions could result in fewer unmitigated significant adverse environmental impacts than the proposed action, as is required by law. ECL § 8-0109(1). More specifically, the DSGEIS fails to properly consider whether placing particularly valuable and/or vulnerable resources – such as the Catskill/Delaware watershed that supplies 90% of New York City's drinking water, the Delaware River Basin, the Catskill Park, and/or other such areas – off-limits to drilling could reasonably mitigate potentially significant adverse impacts.

The DSGEIS claims that prohibiting development of the Marcellus Shale would "be contrary to New York State and national interests" and contravene ECL § 23-0301. (DSGEIS at 9-1 to 9-3.) To begin with, the referenced section of the ECL directs that the development, production, and utilization of natural gas resources in the state be conducted in such a manner that "the rights of all persons including landowners and *the general public* may be fully protected." ECL § 23-0301 (emphasis added). Plainly, if – following completion of the requisite analyses (which were not performed in this DSGEIS) – the adverse environmental impacts to the general public of developing the Marcellus Shale were determined to be so significant as to outweigh any benefits to the state, a prohibition on development could not be seen as running afoul of state law.

Even assuming, *arguendo*, that a full prohibition on development might be an inappropriate alternative, the DSGEIS contains no analysis as to whether partial

prohibitions that would still allow for development of remaining portions of the shale in New York State would be a reasonable alternative. This is a critical failure of the document to conform to the requirements of SEQRA.

Failure to Properly Evaluate a Phased or Capped Development Alternative

The DSGEIS also purports to evaluate a "Phased Permitting Approach" alternative (DSGEIS § 9.2), but dismisses it on the ground that "[p]hased permitting as a means to mitigate regional cumulative impacts is not practical *or necessary* given the inherent difficulties in predicting gas well development for a particular region or part of the State." (*Id.* at 9-3; emphasis added.) In this circumstance, the argument the DSGEIS advances is particularly problematic – if it is prohibitively difficult even to analyze the cumulative impacts of unlimited development on the Marcellus Shale at this stage, it is illogical to conclude that phased permitting might not be necessary to mitigate such impacts. At the very least the document should make provision for a future determination whether the cumulative impacts of development are significantly adverse that limiting or phasing permitting on a going-forward basis is required.

More importantly, however, the DSGEIS could in fact examine a phased alternative right now. As set out above, on the basis of a reasonable worst case scenario, the document can – and legally must – first properly evaluate the cumulative impacts of development of the Marcellus Shale on a local, regional, and statewide basis. Then, it must consider whether an approach that would phase in the number of permits issued – or even establish an upper cap on them – in all or certain parts of the state would adequately mitigate significant adverse impacts.

In other words, based on the same illegitimate rationale underlying the DSGEIS' failure to properly evaluate cumulative impacts discussed above, the document fails to evaluate a reasonable, sound alternative with the potential to result in fewer unmitigated significant adverse impacts than the proposed action. As such, the DSGEIS fails to meet SEQRA's requirements.

Failure to Properly Evaluate a Less Toxic Alternative

Lastly, the DSGEIS contains a discussion of what is termed a "Green Or Non-Chemical Fracturing Technologies And Additives" alternative. (DSGEIS § 9.3.) However, there is no meaningful assessment of the possibility of requiring the use of, for example, non-chemical or reduced-chemical fracturing fluids on the basis that it is, again, "too difficult" to do so because there is no recognized metric and many companies hold their formulae as proprietary. However, NYSDEC is already using its regulatory authority to compel the disclosure of alleged proprietary information regarding the ingredients of non-"green" fracturing fluid, and no explanation is provided as to why it could not do so for "green" alternatives. Nor is it acceptable to disclaim responsibility to assess the potential benefits of "green" alternatives because a new metric might need to be developed. New York State certainly has

sufficient expertise in both NYSDEC and its sister agency, the New York State Department of Health ("NYSDOH"), to at least attempt to develop a reasonable metric.

NYSDEC and NYSDOH also collectively have the ability to perform toxicological evaluations of the more than 240 specific chemicals proposed to be used in fracturing and drilling operations to determine whether the risks associated with the use of any such chemicals are significantly great as to justify prohibitions on their use. (*See* reports of Dr. Glenn Miller and Harvey Consulting, LLC.) Yet no attempt whatsoever was made in the DSGEIS to perform such an assessment. Accordingly, the DSGEIS again fails to meaningfully evaluate an alternative that might result in fewer unmitigated significant adverse impacts, in contravention of SEQRA's requirements.

The DSGEIS Fails to Propose a New Regulatory Program, Improperly Relying on a Patchwork of Discretionary Permit Conditions, Filings and Guidance

A third crucial failing of the DSGEIS is its reliance on permit conditions, filings and guidance rather than proposing a new regulatory process for oil and gas drilling, particularly in the Marcellus Shale. Throughout the DSGEIS, NYSDEC proposes a number of across-the-board so-called mitigation measures.[1] Without addressing the adequacy or appropriateness of these examples as mitigation for significant adverse environmental impacts (some of which are addressed in the accompanying technical comments), these measures appear to be intended as rules, which under New York State law are defined as "fixed, general principle[s] to be

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[1] These include, for example, a ban on "centralized flowback water surface impoundments within the boundaries of primary and principal aquifers, unfiltered water supplies, or mapped 100-year floodplains," DSGEIS at 7-96; a ban on the annular disposal of drill cuttings, *id.* at 7-61; a ban on above-ground flowback water piping and conveyances in 100-year floodplains, *id.* at 7-72; a ban on keeping fracking additives on site if it will be unattended, *id.* at 7-32; a requirement that flowback water handled at the well pad be directed to and contained in steel tanks, *id.* at 7-34; requirements about monitoring wells, *id.* at 7-38; requirements about intermediate and production casing cementing, *id.* at 7-47; requirements for the submission of forms detailing pre-fracking activities and flowback water handling, *id.* at 7-45, 7-50; requirements that a well operator implement greenhouse gas emissions mitigation, visual impacts mitigation, and noise impacts mitigation plans, *id.* at 7-95, 7-103 to 7-106, 7-109; requirements about secondary containment and tank filling and placement practices for drilling rig fuel tanks, *id.* at 7-27, 7-73; requirements about the construction and operation of, liners for, and size of water impoundment pits in general and within primary and principal aquifers and the New York City watershed, *id.* at 7-30, 7-34 to 7-35, 7-64; a requirement that well pads within floodplains use closed-loop tank systems instead of reserve pits to manage fluids and cuttings, *id.* at 7-72; and a requirement that a pressure relieve valve be installed if a well will produce annular gas, *id.* at 7-48.

applied by an administrative agency without regard to other facts and circumstances relevant to the regulatory scheme of the statute it administers." *E.g., Cubas v. Martinez*, 8 N.Y.3d 611, 621 (2007). Accordingly, they require formal promulgation as regulations pursuant to the State Administrative Procedure Act ("SAPA"), rather than reliance on imposition of discretionary permitting conditions and other *ad hoc* guidance documents as seemingly proposed by the DSGEIS. SAPA § 201.

Yet NYSDEC has made no indication that it will propose new regulations pursuant to SAPA to implement the measures that do not follow from existing statutes and regulations. Nor are SEQRA's procedures a substitute for SAPA's. *See, e.g.*, SAPA §§ 202(1), 202-a, 202-b (requiring submission of "a notice of proposed rule making to the secretary of state for publication in the state register" and issuance of "regulatory impact statement" and "regulatory flexibility analysis"). Thus, unless NYSDEC goes through a formal SAPA rulemaking, it will be in violation of state law if it seeks to apply the new mitigation measures identified in the DSGEIS as rules.

On the other hand, if NYSDEC does not intend these measures to be binding as rules on all applicants, it cannot claim that they will function as legally required mitigation for identified significant adverse environmental impacts from the proposed action. Should NYSDEC opt not to promulgate regulations under SAPA, its proposed mitigation measures will not be codified and will be subject to *ad hoc* implementation, change on a case-by-case basis, and modification without public review or debate. Only properly promulgated regulations (or law-making) can ensure that this will not happen. NYSDEC must finally follow through on what it said in 1992 it would do (*see* GEIS at 10): propose and duly implement regulations to govern gas drilling in New York State, and in particular horizontal drilling and high volume hydraulic fracturing in the Marcellus Shale.

The DSGEIS Fails to Comply with SEQRA with Respect to the Catskill/Delaware Watershed

The Catskill/Delaware watershed is a unique natural and hydrological resource of incalculable importance. This watershed area, which stretches over much of five counties in the Catskill Mountains, supplies drinking water to 9 million New Yorkers – roughly half of the State's population. It is the source for the largest municipal drinking water system in the nation and provides approximately 1.2 billion gallons a day to residents in New York City, Westchester Country and a number of smaller jurisdictions within the watershed boundaries. In addition, it is one of only five urban systems in America that because of its high quality source water has been granted waivers from the federal Safe Drinking Water Act filtration requirement.

Preserving the Catskill/Delaware watershed and protecting it from pollution have long been high public priorities for New York State. The Catskill/Delaware

watershed boundaries overlap to a significant degree with the State's Catskill Park and Catskill Forest Preserve, whose preservation have been state public policy for more than 100 years. More recently, over the past two decades – since the promulgation by the U.S. Environmental Protection Agency of its Surface Water Treatment Rule (implementing the Safe Drinking Water Act) – New York State has taken extraordinary steps to safeguard water quality in the Catskill/Delaware watershed.

For example, in the mid-1990's, Governor George Pataki brought city, state, federal and watershed town stakeholders together and brokered the precedent-setting 1997 Watershed Memorandum of Agreement. Since then, the signatories have all committed substantial financial resources to advance the goals of watershed protection, filtration avoidance and environmentally sound economic development that is consistent with preserving the hydrological resources of the Catskill/Delaware watershed. State, city, and federal officials have over this period repeatedly recognized that pollution prevention should be a guiding principle for this watershed in view of the enormous economic costs (over $10 billion in capital costs alone) if the Catskill/Delaware watershed system needs to be filtered. And even if filtration were not immediately required as a result of pollution within the watershed, state officials have long sought to avoid the adverse health risks that would be raised by (and the loss of public confidence that could result from) new pollution discharges into this unique water resource.

Unfortunately, the prospect proposed in the DSGEIS of widespread gas drilling using high-volume hydraulic fracturing and horizontal drilling presents the greatest threat in memory to water quality in the Catskill/Delaware watershed. According to consultants retained by the New York City Department of Environmental Protection, it is quite possible that approval of the DSGEIS gas drilling proposal would result in as many as 3,000 to 6,000 fracking wells within the Catskill/Delaware watershed over the several decades during which drilling would likely take place. Drilling would introduce hundreds of tons of per day of fracturing chemicals into the watershed over this time period. At full build-out, over several decades, the projection by the City's consultants is that between 500,000 and 1 million tons of chemicals would be used for drilling operations in the watershed. The drilling activities would pose a significant risk to water supply infrastructure and lead to an "industrialization of the watershed," with "high levels of site disturbance, truck traffic and intensive industrial activity on a relatively constant basis, over a period of decades," according to the consultants (*see generally*, Hazen and Sawyer "Final Impact Assessment Report: Impact Assessment of Natural Gas Production in the New York City Water Supply Watershed," December 2009, and *see* New York City Department of Environmental Protection, "Briefing to the NYC Water Board on the Natural Gas Impact Assessment Project," December 23, 2009 at 7, 11, 15, and 18). All such drilling would occur in a watershed region that has had very little, if any, recent industrial activity, that has largely retained its rural character, and that has an economy based upon tourism, farming, forestry, education and healthcare, much more than on heavy industry.

The failure to recognize and take into account the unique characteristics of the Catskill/Delaware watershed, and the paramount importance of protecting this natural resource of statewide significance, is inconsistent in several ways with SEQRA and its implementing regulations. First, the DSGEIS treatment of the Catskill/Delaware watershed clashes with SEQRA on the question of alternatives. SEQRA requires, among other things, that an EIS include "a description and evaluation of the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor." 6 N.Y.C.R.R § 617.9 (b) (5) (v). But the DSGEIS does not evaluate, as a reasonable alternative, a Marcellus Shale gas drilling proposal that would prohibit drilling in certain areas of exceptional ecological or hydrological significance, such as the Catskill/Delaware watershed. However, since the Catskill/Delaware watershed currently subject to gas drilling comprises approximately 6% of the Marcellus in New York State (and since other areas of special significance such as the Catskill Park make up similarly small portions of the total Marcellus Shale formation in New York State), DEC should have analyzed as an alternative a gas drilling proposal that might allow drilling to proceed in certain portions of the state, but that would prohibit drilling in other areas, such as the Catskill/Delaware watershed. (We believe the same legal obligation requires, for example, state analysis of an alternative that also would prohibit hydraulic fracturing in the historic New York State Catskill Park.) (And, as noted elsewhere in these comments, we do not believe that the currently proposed DSGEIS provides adequate protection for water resources anywhere in New York State.)

Second, the DSGEIS' consideration of the Catskill/Delaware watershed fails to provide legally sufficient mitigation. A cornerstone of SEQRA is that an EIS include "mitigation measures proposed to minimize the environmental impact" of the proposed action. ECL § 8 – 0109 (2) (f). But in its purported mitigation of potential adverse water quality impacts of gas drilling in the Catskill/Delaware watershed, the DSGEIS relies primarily on arbitrary or inapplicable set-back distances. (*See*, e.g., DSGEIS at 7-68). The DSGEIS argues, for example, that the set-back distances that it suggests could be inserted into drilling permits that are larger than other set-back distances set forth in New York City's Watershed Rules and Regulations. But this ignores the fact that the existing rules do not allow for other heavy industry, pollution-generating activities within the watershed. Moreover, the DSGEIS proposed set-back distances lack scientific support, ignore evidence on the migration of fracking chemicals and fail to mitigate other substantial risks associated with widespread gas drilling in the Catskill/Delaware watershed and documented in other public comments, including the NYCDEP Hazen and Sawyer consultants' report.

Third, the DSGEIS is flawed regarding the Catskill/Delaware watershed on the issue of cumulative impacts. As detailed above, the DSGEIS' discussion of cumulative impacts in general is woefully inadequate. The document states that cumulative impacts of industrial gas drilling are "very difficult to accurately predict."

(DSGEIS at 6-145.) Thus, the DSGEIS fails to forecast, let alone analyze, the impact that between 3,000 and 6,000 gas wells could have on water quality and industrialization of the landscape, among other things, in the Catskill/Delaware watershed. In short, the DSGEIS discussion of this issue, such as it is, fails to fulfill the SEQRA requirements that the agency analyze "not only the site specific impacts of the individual projects under consideration but also . . . the cumulative impacts on the environment." (6 N.Y.C.R.R. § 617.10 (e)). For all of these reasons, the DSGEIS' treatment of the Catskill/Delaware watershed is deficient as a matter of law.

Conclusion

Thank you for the opportunity to submit these comments on the DSGEIS. NRDC appreciates the good intentions of many NYSDEC staff who contributed to the preparation of the DSGEIS. Unfortunately, as currently drafted, the DSGEIS fails to establish that drilling in New York's Marcellus Shale can proceed in a manner that protects the health and safety of the state's residents or its precious natural resources. Accordingly, before NYSDEC proceeds with any permitting for drilling in the Marcellus Shale, it must recommence its consideration of the proposed activity and conduct all scientifically and legally required analyses in a new draft environmental impact statement.

Sincerely,

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Senior Attorney

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