DATE: November 28, 2011

TO: Mr. Joe Martens, Commissioner
dSGEIS Comments
NYS DEC
625 Broadway
Albany, New York 12233-6510

FROM: Derrick (Dirk) J. Marcucci, RPA
Chair, Ad Hoc Committee-Marcellus Shale Well Permitting, dSGEIS
New York Archaeological Council (NYAC)

SUBJECT: Revised Draft-Supplemental Generic Environmental Impact Statement (dSGEIS) 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 Reservoirs

The New York Archaeological Council (NYAC) is a statewide association of New York State professional archaeologists with over 100 members. Membership is primarily comprised of professionals involved in cultural resource management. As cultural resource professionals, we are concerned with protecting and managing New York’s cultural resources—archaeological, historical, architectural and visual resources. On behalf of NYAC membership, we wish to offer the following comments on the revised dSGEIS (dated 7 September 2011) for well permits to develop the Marcellus Shale gas fields throughout the Southern Tier of New York State.

In 2008, NYAC outlined concerns of this industry’s effect on cultural resources in regards to well permitting (see attached comment letter). Our review of the 2008 dSGEIS document determined that it did not adequately address adverse impacts to cultural resources, nor did it identify a process compatible with the State and National Historic Preservation Acts that would identify and protect cultural resources representing our Nation’s and State’s heritage. Given that none of our 2008 comments were integrated into the present revised dSGEIS, there are identical, and serious, shortcomings with the 2011 revised dSGEIS. The current revised dSGEIS only focuses on known (visual) cultural resources, it does not acknowledge the direct impacts (large scale earthmoving) that will threaten cultural resources, nor does it identify a clear process for well permitting that ensures protection of New York State’s cultural resources as a result of the industry’s undertakings.
A serious omission in the revised dSGEIS is its failure to explicitly identify how compliance with the State Historic Preservation Act (14.09 State Regulations, Part 426) of the Parks, Recreation and Historic Preservation Act of 1980, Section 14.09 will be executed. The Act requires state agencies to consult with the Office of Parks, Recreation and Historic Preservation (OPRHP) if it appears that any projects being planned may or will cause any change, beneficial or adverse, in the quality of any historic, architectural, archeological or cultural property that is listed on the National Register of Historic Places or listed in the State Register or that is determined to be eligible for listing in the State Register. Furthermore, it requires New York state agencies, to the fullest extent practicable, consistent with other provisions of the law, to avoid or mitigate adverse impacts to such cultural properties, to explore all feasible and prudent alternatives and to give due consideration to feasible and prudent plans that would avoid or mitigate adverse impacts to such property.

The revised dSGEIS incorrectly subsumes all cultural resources under the category of “visual resources”, only considers those historic resources listed or eligible for listing in the State/National Register of Historic Places (Section 2.4.12), and fails to identify earth moving/land clearing as an adverse impact to significant cultural resources. While cultural resources that are significant because of their “visual qualities or aesthetics” and cultural view sheds are a legitimate concern during in the impact analysis, the revised dSGEIS fails to identify and consider buried archaeological sites. A major omission in the revised dSGEIS is its failure to consider the potentially disastrous impacts earth moving/land clearing activities associated with Marcellus Shale development will have on buried and unidentified archaeological sites.

According to the revised dSGEIS, earth moving/land disturbance(s) associated with this industry will include the construction of access roads, well pads, and utility corridors. Other potential impacts discussed in the revised dSGEIS include “cuttings” pits, reserve pits, fresh water storage impoundments, and waste disposal. The average total disturbance associated with a multi-well pad during the drilling and fracturing stage is estimated at 7.4 acres and a well pad for a single vertical well for the drilling and fracturing stage is estimated at 4.8 acres (Section 5.1).

The significance of archaeological sites and other cultural resources important to New York’s history and people are unrelated to site size and sites can range from a several square feet (the size of a human grave) to multi-acre prehistoric villages or historic hamlets. The industry’s land disturbances estimates of 4.8-7.4 acres are large enough that entire sites could be obliterated during land clearing activities required for hydraulic fracturing mining and installation or construction of related infrastructure needs.

Only a very small percentage, estimated at less than one percent, of New York has been surveyed by professional archaeologists or by other cultural resource professionals. As a result, only a small number of New York’s known significant cultural resources are officially recorded and/or listed in the State/National Register of Historic Places. Most New York archaeological sites that could be affected by this industry’s undertakings are buried, encapsulated in sediments and soils below the ground surface, and as of yet, undiscovered. Because they have not been identified and are buried, archaeological sites can be destroyed easily by heavy mechanized equipment movement and land clearing activities, both of which are undeniable impacts linked to Marcellus Shale mining and associated infrastructure needs.
Many archaeological sites in the Southern Tier are at serious risk of destruction from this industry’s actions because: earth moving/land disturbance is a routine and unavoidable part of this industry’s activities; not all significant archaeological sites have been identified and they can exist below ground; and there are no proactive measures in the revised dSGEIS that outline how archaeological sites will be identified and protected in the permitting process. To resolve this threat, we strongly urge NYSDEC to incorporate measures into the permitting process that comply with the State and National Historic Preservation Act directives to identify and protect cultural resources by professional archaeologists (36 CFR 61 qualified) before permits are issued for the industry’s undertakings.

Considering the important issues discussed above that are critical for protecting New York’s significant cultural resources from activities associated with Marcellus Shale mining, we recommend that the following be included in the final dSGEIS sections:

CHAPTER 1-Introduction, Section 1.2 Regulatory Jurisdiction

Protection of cultural resources needs to be included in this section.
- manage natural and cultural resources to assure their protection and balanced utilization;

CHAPTER 2-Destription of Proposed Action, Section 2 –Visual Resources

All cultural resources are incorrectly subsumed under a category termed “visual resources.” This section needs to renamed “Cultural Resources” and include a comprehensive list of the resources that are commonly associated with New York’s history (archaeological, historical, structures, traditional cultural places, commemorative and traditional cultural places, objects, districts, objects, artifacts, etc.), that could be adversely affected by the activities associated with Marcellus Shale mining and related activities.

As written, the revised dSGEIS only considers cultural resources already recorded/listed. The final dSGEIS should explicitly state that all cultural resources, known and unknown (i.e., undiscovered) need to be considered and protected.

Earth moving/land clearing needs to be explicitly identified as a potential adverse impact to cultural resources.

CHAPTER 3– SEQRA Process

This section needs to discuss compliance with the State Historic Preservation Act (14.09 State Regulations, Part 426) of the Parks, Recreation and Historic Preservation Law. Specifically, the well permitting process must include coordination with the NYSDEC Agency Preservation Officer and OPRHP to determine which impacts, direct and indirect, that may be significant in terms of cultural resources.

CHAPTER 6 – Potential Environmental Impacts

A separate section is needed to consider all potential impacts, direct and indirect, to all cultural resources/cultural properties including buried archaeological sites. Earth moving/land clearing needs to be explicitly identified as a direct and potential adverse impact
to cultural resources. Direct impacts constitute all earth moving/land clearing activities required for well drilling (e.g., well pads, access roads, lined pits, injection pits, etc.). Indirect impacts (e.g., vibration, soil compaction, chemical contamination, etc.) also need to be listed in this section. Indirect impacts have great potential to diminish the integrity of known or not yet discovered archaeological sites and need to be considered in the permitting process.

CHAPTER 7 – Existing and Recommended Mitigation Measures, Section 7.9-Visual Mitigation Measures

As written, the revised dSGEIS only takes into account visual (above ground) resources. A separate section needs to be added under Mitigation Measures to address mitigation of archaeological (below ground) resources. In most cases, high volume hydraulic fracturing operations and related activities would not result in significant adverse impacts on visual resources. However, even a small amount of earth moving/land clearing can severely impact buried archaeological resources. Mitigation measures related to earth moving’s effect on (buried/below ground) cultural resources (e.g., prehistoric and historic archaeological sites) and other types of cultural resources needs to be explicitly stated.

CHAPTER 8 – Permit Processing and Regulatory Coordination, Section 8.1.1.1 SEQRA Participation

In Table 8.1: Regulatory Jurisdictions Associated With High-Volume Hydraulic Fracturing (Updated August 2011), OPRHP involvement only is listed for “well siting” and “new industrial treatment plants” and only listed as “role pertains in certain circumstances” which are not defined. Again, compliance with the State Historic Preservation Act needs to be part of the permitting process.

OPRHP involvement should be listed for all earth moving/land clearing activities shown on Table 8.1, since these are the most likely to have adverse impact to significant (below ground) cultural resources. The NYDEC should consult with the OPRHP to determine the sensitivity of construction areas proposed for mining and associated activities and assess the need to conduct cultural resource investigations before permits are issues.

CHAPTER 11 – Summary of Potential Impacts and Proposed Mitigation Measures, Table 11.1 Summary of Potential Impacts and Proposed Mitigation Measures

Cultural resources need to be listed as resources that will be affected by this industry’s activities.

Potential mitigation measures for cultural resources would include: A “phased” approach to identify, evaluate, and mitigate significant archaeological sites—i.e., Phase I archaeological identification surveys, Phase II National Register of Historic Places (NRHP) archaeological site evaluations and Phase III archaeological site mitigations; architectural recordation; and consultation with OPRHP and Native Americans, or other groups, who have interest in property or places that are rooted their community or cultural group’s history.
We appreciate the opportunity to comment. NYAC would welcome any questions and will be happy to provide any needed additional information to assist the NYSDEC if requested.

Sincerely yours,

[Signature]

Derrick (Dirk) J. Marcucci, RPA
Chair, NYAC Ad Hoc Committee-Marcellus Shale Well Permitting, dSGEIS

Attachment (1)

cc: John Bonafide, OPRHP
    Charles Vandrei, NYSDEC Agency Preservation Office
    NYS Assemblywoman Donna Lupardo
    NYS Senator Thomas Libous
    NYAC Board