COUCH WHITE
COUNSELORS AND ATTORNEYS AT LAW

Couch White, LLP
540 Broadway
P.O. Box 22222
Albany, New York 12201-2222
(518) 320-3411

Adam J. Schultz
Partner

Direct: (518) 320-3411
Fax: (518) 426-0533
Email: aschultz@couchwhite.com

June 21, 2019

VIA EMAIL AND HAND DELIVERY
Ms. Catherine Dickert
NYSDEC
Division of Mineral Resources
625 Broadway
Albany, NY 12233
oilgas@dec.ny.gov

Re: Tioga Energy Partners, LLC
Snyder E 1-A Well Drilling Permit Application

Ms. Dickert:

This office represents Tioga Energy Partners, LLP ("TEP") regarding the above referenced application. Pursuant to and consistent with the April 17, 2019 SEQRA Positive Declaration and 6 NYCRR Part 617.8, enclosed please find a draft scoping document for the Draft Supplemental Environmental Impact Statement ("dSEIS") to be prepared for this application.

We look forward to working with the Department to complete the scoping process as expeditiously as possible.

Very truly yours,

COUCH WHITE, LLP

Adam J. Schultz

AJS/nls
Enclosure
Cc: Linda Collart (via email w/attachment - linda.collart@dec.ny.gov)
David Keehn (via email w/attachment - david.keehn@dec.ny.gov)
Thomas King (via email w/attachment - thomas.king@dec.ny.gov)
S:\DATA\Client17 16401-16800\16423\Corres\20190621 Ltr to DEC - Dickert.DOCX

TIOGA ENERGY PARTNERS, LLC
SNYDER E 1-A WELL
BARTON, NEW YORK
API # 31-107-30000-01-00

DRAFT SCOPE OF ISSUES
FOR A
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
TIOGA ENERGY PARTNERS, LLC
SNYDER E 1-A WELL
BARTON, NEW YORK
TOWN OF BARTON, TIOGA COUNTY

API # 31-107-30000-01-00

Lead Agency:

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Contact Person:

Ms. Catherine Dickert, Director
Division of Mineral Resources
Phone (518) 402-8056
Fax (518) 402-9032
Email: oilgas@dec.ny.gov

Prepared For:

Tioga Energy Partners, LLC
PO Box 22222
Albany, New York 12201

Prepared By:

P.W. Grosser Consulting, Inc.
630 Johnson Avenue, Suite 7
Bohemia, New York 11716
Phone: 631-589-6353
Fax: 631-589-8705

PWGC Project Number: CWL1901

JUNE 2019

DRAFT SCOPE OF ISSUES
FOR A
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
TIOGA ENERGY PARTNERS, LLC
BARTON, NEW YORK

TABLE OF CONTENTS

CLIENT DRIVEN SOLUTIONS PHONE: 518.335.3636 PWGROSSER.COM 475 BROADWAY, #824 SARATOGA SPRINGS, NY 12866
LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON

1.0 INTRODUCTION

This scoping document for the proposed well drilling permit for Tioga Energy Partners, LLC (TEP) Snyder E 1-A well, located in the Town of Barton, Tioga County, New York has been prepared pursuant to the State Environmental Quality Review Act (SEQRA) regulations, 6 NYCRR Part 617.8 and sets forth:

(1) a brief description of the proposed action;
(2) the potentially significant adverse impacts identified in Part 3 (and its attachment) of the environmental assessment form (attached) and as a result of consultation with the other involved agencies and the public, including an identification of those particular aspect(s) of the environmental setting that may be impacted;
(3) the extent and quality of information needed for the preparer to adequately address each impact, including an identification of relevant existing information, and required new information, including the required methodology(ies) for obtaining new information;
(4) an initial identification of mitigation measures; and
(5) the reasonable alternatives to be considered.

The primary goal of scoping for this action is to focus the preparation of a draft Supplemental Environmental Impact Statement (dSEIS) to the 1992 General Environmental Impact Statement (GEIS) on the Oil, Gas and Solution Mining Regulatory Program which focuses on potentially significant adverse impacts, and to eliminate consideration of impacts determined irrelevant or insignificant. The potentially significant adverse impacts listed in this Scoping Document are taken from Part 3 of the 2015 Full Environmental Assessment Form prepared for the project and consultation with involved agencies and the public.

1.1. Project Description

As described in the April 17, 2019 Positive Declaration ("Positive Declaration"), TEP proposes to drill a stratigraphic well (Snyder E 1; API # 31-107-30000-00-00) and then a natural gas well (Snyder E 1-A; API # 31-107-30000-01-00) sequentially at the same surface location in the Town of Barton, Tioga County, New York (collectively "Project"). The Snyder E 1-A well is proposed to be a horizontal well stimulated by waterless hydraulic fracturing (gelled propane hydraulic fracturing) using gelled propane as the fracturing fluid.

The stratigraphic well would be drilled first, vertically to the Utica Shale formation, with a total measured depth of approximately 9,530 feet, to gather geologic information and obtain rock cores from the Marcellus Shale and Utica Shale formations. The Snyder E 1 well would then be plugged back with cement and a mechanical plug to facilitate the horizontal drilling of the proposed natural gas well, the Snyder E 1-A well. As proposed, the Snyder E 1-A natural gas well would use the already constructed upper portion (i.e., conductor, surface

casing, and part of intermediate casing) of the first well and be drilled horizontally and completed in the Marcellus Shale formation with a total measured depth of approximately 6,600 feet.

Gelled propane hydraulic fracturing involves the transport of propane to the well site, the chilling of that propane, and the mixture of chemical additives into the propane. The resulting mixture would then be pumped under pressure down the well bore and out into the surrounding rock formation in a way intended to fracture that rock to increase the flow of gas out of the rock formation and into the well.

The proposed construction time is approximately 106 days; including two (2) days for the rig up/down, 17 days of vertical drilling for the Snyder E1 well, two (2) days for plugback, eight (8) days for horizontal drilling of the Snyder E1-A well, 11 days of well completion (during daylight hours only), and approximately 66 days of flowback. Under the TEP proposal, the Snyder E 1-A well would be flared for approximately 15 days and, if deemed successful by TEP, operated to produce natural gas.

TEP initially submitted applications to the Department for the subject well drilling permits in May and June 2015. TEP subsequently responded to two Department-issued Notices of Incomplete Applications (NOIA) and then supplemented its application filings through early 2018 with responses to additional Department demands for information.

Waterless hydraulic fracturing was first performed in Canada in 2008 and since then has been used to successfully treat more than 2,600 zones at over 800 sites in North America.

CLIENT DRIVEN SOLUTIONS PHONE: 518.335.3636 PWGROSSER.COM 475 BROADWAY, #824 SARATOGA SPRINGS, NY 12866
LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON

2.0 POTENTIALLY SIGNIFICANT IMPACTS OF THE PROPOSED ACTION TO BE ADDRESSED IN THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (dSEIS)

2.1. Site-Specific Impacts

The following potential significant adverse impacts are identified in the Positive Declaration.

Air Resources and Greenhouse Gas Emissions

The dSEIS will provide a narrative discussion and evaluation of (1) potential air pollutant emissions, and (2) potential contribution to and impacts from climate change from gelled propane hydraulic fracturing operations and subsequent well operation. The climate change analysis will use the criteria provided in the Guide for Assessing Energy Use and Greenhouse Gas Emissions in an Environmental Impact Statement and as detailed in the following paragraphs. Emissions will be presented in tons of carbon as well as quantity of individual emissions.

Direct Emissions

The dSEIS will provide a narrative discussion and analysis of the emissions of fugitive methane, Volatile Organic Carbons (VOCs), and greenhouse gases (GHG) from trucks carrying propane and other equipment to the site, operation of on-site equipment to complete fracturing operations, during production, and from flaring of gas. The narrative will also include a discussion and analysis of the potential for GHG and other air emissions from preparation of produced gas and any liquid products for transportation and sales.

Downstream (Indirect) Emissions

The dSEIS will include a discussion of downstream emissions, including GHG and other air emissions. Specifically, the dSEIS will include a narrative discussion of the Project's potential effect on the goals and objectives of the State Energy Plan and the Clean Energy Standard.

The dSEIS will provide an analysis of the project's potential to contribute to an incremental increase in levels of nitrogen oxides (NOx) and other non-attainment pollutants, in the New York City metropolitan area and other potential downwind areas, including and limited to Albany-Schenectady-Troy, Poughkeepsie-Newburgh, and Greater Connecticut (Hartford).

Human Health

The dSEIS will provide a narrative discussion of the Project's potential impacts to human health and safety, as outlined below, for the general public and onsite workers. The impacts associated with transporting and storing propane and the use of the chemical additives GelLP-10, a gelling agent; Activator XL-460, an

activator, and BrkLPP-10, a gel breaker, and additives within the same family will be discussed. The storage, handling, and transportation of propane consistent with National Fire Protection Association 58: Liquefied Petroleum Gas Code and United States Department of Transportation will be discussed.

Without reaching a conclusion, the New York State Department of Health Public Health Review (December 2014) for high-volume hydraulic fracturing (HVHF) identified potential adverse environmental impacts from HVHF that could result in adverse public health outcomes. The identified potential impacts include: air impacts that could affect respiratory health due to increased levels of particulate matter, ozone, diesel exhaust, or volatile organic compounds; drinking water impacts from underground migration of methane and/or fracturing fluid chemicals associated with faulty well construction or seismic activity; surface spills from the use, transport or storage of chemicals or wastewater potentially resulting in soil, surface and groundwater contamination; surface water contamination resulting from inadequate wastewater treatment; earthquakes and creation of fissures; and climate change impacts due to methane, propane and other volatile organic compound releases to the atmosphere and their resulting public health impacts. The dSEIS will assess the likelihood and severity of these potential impacts.

Geologic Resources: Naturally Occurring Radioactive Material (NORM) and Seismicity

The dSEIS will provide a narrative discussion of NORM and identify and assess the risk factors for increasing the likelihood of induced seismicity resulting from gelled propane hydraulic fracturing as outlined below. Discussion of NORM will focus on buildup in pipes and equipment and its presence in cuttings and wastes from the treatment of production brine, if any. Routes of potential worker exposure during cleaning and maintenance of pipes and disposal of equipment and accumulated NORM will be analyzed. The Project's potential to induce seismicity will also be analyzed.

2.2. Cumulative Impacts

The dSEIS will assess whether the potential for widespread development of gas wells using the gelled propane hydraulic fracturing technology exists, and if so, provide a comparative assessment of probable and potentially significant cumulative impacts from gelled propane hydraulic fracturing to those assessed in the 2015 FSGEIS[1] to determine whether similar impacts would emanate from this action. If necessary, the dSEIS will include an evaluation of relevant impacts assessed in the 2015 FSGEIS and a comparison of the relevant findings from that

[1] The Final Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program, Regulatory Program for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs, NYSDEC May 2015.

study to impacts anticipated from the use of gelled propane hydraulic fracturing.

CLIENT DRIVEN SOLUTIONS PHONE: 518.335.3636 PWGROSSER.COM 475 BROADWAY, #824 SARATOGA SPRINGS, NY 12866
LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON

3.0 INFORMATION NEEDED TO ADEQUATELY ADDRESS THE POTENTIAL IMPACTS OF THE PROJECT IN ACCORDANCE WITH 6 NYCRR 617.8(e)(3)

The extent and quality of information needed for the preparer to adequately address each impact, including an identification of relevant existing information, and required new information, including the required methodology(ies) for obtaining new information is set forth below.

Hydraulic fracturing has been reviewed in both the 1992 Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory program and the 2015 FSGEIS. Though the purpose of this dSEIS is to address potential impacts that the New York State Department of Environmental Conservation (NYSDEC) states were not adequately addressed by these documents; information from these documents will be incorporated, as appropriate, into the dSEIS as detailed in Section 2.

The information contained in the application documents, TEP's responses to Notices of Incomplete Application, and other information submitted by TEP to the Department will be compared against the Positive Declaration and supplemented as needed. Additionally, relevant guidance, research studies and other authority that will assist with or form the basis for addressing the potential impacts of the Project will be gathered and utilized in preparation of the dSEIS.

4.0 INITIAL IDENTIFICATION OF MITIGATION MEASURES (6 NYCRR 617.8(e)(4))

A detailed narrative description of potentially significant adverse impacts will be set forth in detail and summarized in the dSEIS narrative. The dSEIS will contain a full description and assessment of proposed mitigation measures to mitigate any potential significant adverse impacts. The mitigation measures will be described, and their effectiveness assessed in narrative form.

An initial identification of the mitigating effects of the Project (waterless hydraulic fracturing) compared to high-volume hydraulic fracturing include:

ISSUE	HVHF	WATERLESS PROPANE
Water Sourcing	YES	NO
High Volume of Truck Trips	YES	NO
Water/Fluid Disposal	YES	NO
Open Pits (Fluid Storage)	YES	NO
Multi-Well Pad	YES	NO
Significant Flaring	YES	NO
NORM to Surface	YES	NO
Biocides in Fluid	YES	NO
Dust (proppant transfer)	YES	NO

5.0 REASONABLE ALTERNATIVES TO BE CONSIDERED IN THE DSEIS - 6 NYCRR 617.8(e)(5)

The no action alternative will evaluate the adverse or beneficial site changes that are likely to occur in the reasonably foreseeable future, in the absence of the proposed action. Feasible alternatives to the action will be described and evaluated considering the objectives of the project sponsor. The description and evaluation of each alternative will be discussed at a level of detail sufficient to permit a comparative assessment of the alternatives discussed. The range of alternatives that may be discussed include sites, technology, scale or magnitude, design, timing, and use. Included within the range of feasible alternatives to be discussed in the dSEIS are:

- No action
- Vertical wells
- ("Green") non-chemical fracturing technologies and additives
- Water based hydraulic fracturing

CLIENT DRIVEN SOLUTIONS PHONE: 518.335.3636 PWGROSSER.COM 475 BROADWAY, #824 SARATOGA SPRINGS, NY 12866

LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON

PWGC
CLIENT DRIVEN SOLUTIONS

ATTACHMENT

CLIENT DRIVEN SOLUTIONS PHONE: 518.335.3636 PWGROSSER.COM 475 BROADWAY, #824 SARATOGA SPRINGS, NY 12866

LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON

New York State Department of Environmental Conservation
Office of General Counsel, 14th Floor
625 Broadway, Albany, New York 12233-1500
Phone: (518) 402-9185 **Fax:** (518) 402-9018
Website: www.dec.ny.gov

April 19, 2019

Leon Cary, Supervisor
Town of Barton
304 Route 17C
Waverly, NY 14892

Susquehanna River Basin Commission
4423 North Front Street
Harrisburg, PA 17110

Adam Schultz
Attorney for Applicant
Couch and White, LLP
540 Broadway
Albany, NY 12201-2222

Re: Tioga Energy Partners, LLC
Snyder E 1A Well Drilling Permit Application

All:

Please see attached Full Environmental Assessment Form for the referenced project. The Positive Declaration is expected to appear in the April 23, 2019 Environmental Notice Bulletin.

As per the Positive Declaration, the applicant is directed to prepare and submit a draft scope.

Very truly yours,

David H. Keehn

cc: C. Dickert

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: SNYDER E 1A		
Project Location (describe, and attach a general location map): 233 Hamilton Valley Road, Town of Barton, Tioga County, TM# 102.00-1-24		
Brief Description of Proposed Action (include purpose or need): Utilize same bore hole as Utica formation Snyder E 1 Well and complete horizontal natural gas well using LPG fracturing in the Marcellus Shale. Utilize existing farm/landowner road with improvements. Well Pad and Well Top Hole location: 233 Hamilton Valley Rd, Town of Barton, Tioga County, NY; TM#102.00-1-24; Owner: Ernest J. Snyder Access Rd.: Hamilton Valley Rd, Town of Barton, Tioga County, NY; TM#102.00-1-22 & 2-16.1; Owner: Howard & Beryl Chrisfield		
Name of Applicant/Sponsor: Tioga Energy Partners, LLC	Telephone: 518 426-4600 E-Mail: aschultz@couchwhite.com	
Address: P.O. Box 22222		
City/PO: Albany	State: NY	Zip Code: 12201
Project Contact (if not same as sponsor; give name and title/role): (same as above)	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): See Description Above	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Council, Town Board, or Village Board of Trustees ☐Yes☑No		
b. City, Town or Village Planning Board or Commission ☐Yes☑No		
c. City Council, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☐Yes☑No		
e. County agencies ☐Yes☑No		
f. Regional agencies ☑Yes☐No	SRBC - Approval By Rule	
g. State agencies ☑Yes☐No	NYSDEC Minerals Division Drilling Permit; NYSDEC SPDES GP-0-15-002 (Stormwater)	
h. Federal agencies ☐Yes☑No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No
iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☐Yes☑No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☑No
If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No
If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☐Yes ☑No
If Yes, what is the zoning classification(s) including any applicable overlay district?

b. Is the use permitted or allowed by a special or conditional use permit? ☐Yes ☐No N/A

c. Is a zoning change requested as part of the proposed action? ☐Yes ☐No N/A
If Yes,
i. What is the proposed new zoning for the site?

C.4. Existing community services.

a. In what school district is the project site located? Spencer Van Etten

b. What police or other public protection forces serve the project site?
Tioga County Sheriff, State Police

c. Which fire protection and emergency medical services serve the project site?
Tioga Center; Halsey Valley

d. What parks serve the project site?
None

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Industrial.

b. a. Total acreage of the site of the proposed action? 3.51 acres
b. Total acreage to be physically disturbed? 0 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 53.86 acres

c. Is the proposed action an expansion of an existing project or use? ☐Yes ☑No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐Yes ☑No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐Yes ☐No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐Yes ☐No N/A
i. If No, anticipated period of construction: _____ months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:

f. Does the project include new residential uses? ☐Yes ☑No
If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☐Yes ☑No
If Yes,
i. Total number of structures _____
ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length
iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☑No
If Yes,
i. Purpose of the impoundment: _____
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐Other specify:
_____
iii. If other than water, identify the type of impounded/contained liquids and their source.
_____
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):
_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☐Yes ☑No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)
If Yes:
i. What is the purpose of the excavation or dredging? _____
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.
_____
_____
iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No
If yes, describe. _____
_____
v. What is the total area to be dredged or excavated? _____ acres
vi. What is the maximum area to be worked at any one time? _____ acres
vii. What would be the maximum depth of excavation or dredging? _____ feet
viii. Will the excavation require blasting? ☐Yes ☐No
ix. Summarize site reclamation goals and plan: _____
_____
_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐Yes ☑No
If Yes:
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____
_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐Yes☐No

If Yes, describe: _____

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes☐No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☐Yes☑No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐Yes☐No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐Yes☐No
- Is the project site in the existing district? ☐Yes☐No
- Is expansion of the district needed? ☐Yes☐No
- Do existing lines serve the project site? ☐Yes☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐Yes☐No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐Yes☑No*

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

* None anticipated; if necessary, will be disposed of at facility permitted for such purposes

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐Yes☐No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐Yes☐No
- Is the project site in the existing district? ☐Yes☐No
- Is expansion of the district needed? ☐Yes☐No

- Do existing sewer lines serve the project site? ☐Yes☐No
- Will line extension within an existing district be necessary to serve the project? ☐Yes☐No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes☐No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☐Yes☑No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. _____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes☐No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐Yes☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Delivery of propane; Heavy equipment and power generation to complete well and haul waste

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes☐No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: N/A
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: variable and intermittent
- Saturday: " (flowback)
- Sunday: " (flowback)
- Holidays: " (flowback)

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

COMPLETION AND TRUCKING DURING DAYLIGHT HOURS FOR SHORT DURATIONS

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Down directional safety lighting. Nearest residence > 1/2 mile.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☐ Commercial ☐ Residential (suburban) ☑ Rural (non-farm)
☑ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	1.35	1.35	0
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	3.5	3.5	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	4	4	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Gravel Pad	0.65	0.65	0

c. Is the project site presently used by members of the community for public recreation? ☐Yes☑No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐Yes☑No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐Yes☑No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes☑No

If Yes:

i. Has the facility been formally closed? ☐Yes☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes☑No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐Yes☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes☐No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐Yes☐No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐Yes ☐No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐Yes ☐No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 6 INCHES TO 6 FEET feet

b. Are there bedrock outcroppings on the project site? ☐Yes ☑No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

Fremont/Volusia channery silt loam	85 %
Lordstown " " "	6 %
Woostern " " "	9 %

d. What is the average depth to the water table on the project site? Average: >1.5 feet

e. Drainage status of project site soils:
☑ Well Drained: 9 % of site
☐ Moderately Well Drained: ____ % of site
☑ Poorly Drained 91 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 73 % of site
☑ 10-15%: 10 % of site
☑ 15% or greater: 17 % of site

g. Are there any unique geologic features on the project site? ☐Yes ☑No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐Yes ☑No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐Yes ☑No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐Yes ☐No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐Yes ☐No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐Yes ☑No

j. Is the project site in the 100 year Floodplain? ☐Yes ☑No

k. Is the project site in the 500 year Floodplain? ☐Yes ☑No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑Yes ☐No
If Yes:

i. Name of aquifer: Clinton Street Ballpark SSA

m. Identify the predominant wildlife species that occupy or use the project site:
DEER TURKEY

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☑Yes ☐No
If yes, give a brief description of how the proposed action may affect that use:
DEER HUNTING - PROPOSED ACTION WILL NOT AFFECT USE EXCEPT DURING DEVELOPMENT- private landowner only

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☑Yes ☐No
If Yes, provide county plus district name/number: TIOG001

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐Yes ☑No

If Yes:

i. Nature of historic/archaeological resource: ☐Archaeological Site ☐Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐Yes ☑No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐Yes ☑No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐Yes ☑No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐Yes ☑No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐Yes ☐No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Clay Smith Date 7/7/15

Signature _____ Title Member

PRINT FORM

Agency Use Only [If applicable]

Project: TEP

Date:

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes**" to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No**" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)
☐ NO ☑ YES
If "Yes", answer questions a - j. If "No", move on to Section 2.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☑	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☐ NO ☑ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: Potential seismic and naturally occurring radioactive materials impacts		☐	☑

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☑ NO ☐ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____		☐	☐

4. Impact on groundwater
The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) ☑ NO ☐ YES
If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____		☐	☐

5. Impact on Flooding
The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) ☑ NO ☐ YES
If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D,2,h, D.2.g) ☐NO ☑YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: Fugitive emissions of methane from well and surface equipment are anticipated		☐	☑

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☑NO ☐YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑NO ☐YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources
The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) ☑ NO ☐ YES
If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	☐ ☐	☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	☐ ☐	☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: _____		☐	☐

10. Impact on Historic and Archeological Resources
The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) ☑ NO ☐ YES
If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	☐	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☐	☐

d. Other impacts: _____		☐	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☐	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☐	☐
e. Other impacts: _____		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____		☐	☐

13. Impact on Transportation
The proposed action may result in a change to existing transportation systems. ☑ NO ☐ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☐
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☐
f. Other impacts: _____		☐	☐

14. Impact on Energy
The proposed action may cause an increase in the use of any form of energy. ☐ NO ☑ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: 2015 FSGEIS states successful horizontal well drilling may spur development in new areas; evaluate consistency with State Energy Plan and GHG guidance		☐	☑

15. Impact on Noise, Odor, and Light
The proposed action may result in an increase in noise, odors, or outdoor lighting. ☑ NO ☐ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☐ NO ☑ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☑	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☑	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☑	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☑	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☑	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☑	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☑	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☑	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☑	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☑	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☑	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☑	☐
m. Other impacts: Hydraulic fracturing with propane, new in NY, may present dangers of explosion; adverse health impacts associated with emissions may also result		☐	☑

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☑ NO ☐ YES
(See Part 1. C.1, C.2. and C.3.)
If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☑ NO ☐ YES
(See Part 1. C.2, C.3, D.2, E.3)
If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only [If Applicable]

Project : TEP

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

See Attachment 1.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☐ Type 1 ☑ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information
See Attachment.

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the New York State Department of Environmental Conservation as lead agency that:

☐ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.d).

☑ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Snyder E 1 well drilling and plugging permits, and Snyder E 1-A well drilling permit and flare approval

Name of Lead Agency: New York State Department of Environmental Conservation

Name of Responsible Officer in Lead Agency: Catherine Dickert

Title of Responsible Officer: Director, Division of Mineral Resources

Signature of Responsible Officer in Lead Agency: Catherine Dickert Date: 4/17/2019

Signature of Preparer (if different from Responsible Officer) Date:

For Further Information:

Contact Person: Catherine Dickert

Address: NYS DEC Division of Mineral Resources 625 Broadway, Albany, NY 12233

Telephone Number: 518-402-8056

E-mail: oilgas@dec.ny.gov

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

Attachment to Part 3 of Full Environmental Assessment Form (FEAF)
Tioga Energy Partners, LLC (Tioga Energy)
Snyder E 1A Well Drilling Permit Application

Introduction:

The New York State Department of Environmental Conservation (DEC) finalized a State Environmental Quality Review Act (SEQRA) review of oil and gas wells in 1992 in a Generic Environmental Impact Statement (1992 GEIS) on the Oil, Gas and Solution Mining Regulatory Program. As an outcome of that process, the DEC determined that certain wells, including related surface facilities, must be evaluated to determine whether they may have a significant adverse impact on the environment and may require a supplemental EIS. According to the 1992 GEIS (at page 14), a supplemental EIS "may be required if the proposed action is not addressed in this document and if the subsequent action involves one or more significant adverse environmental impacts." The DEC, as SEQRA Lead Agency for this project, has determined that the portions of the proposed action described below were not addressed in the 1992 GEIS and that the potential for significant adverse environmental impacts requires the preparation of a draft Supplemental Environmental Impact Statement (dSEIS) to the 1992 GEIS.

Modified Description of Action:

Tioga Energy proposes to drill a stratigraphic well (Snyder E 1; API # 31-107-30000-00-00) and then a natural gas well (Snyder E 1-A; API # 31-107-30000-01-00) sequentially at the same surface location in the Town of Barton, Tioga County, New York (collectively "project"). The Snyder E 1-A well is proposed to be a horizontal well stimulated by waterless hydraulic fracturing (gelled propane hydraulic fracturing) using gelled propane as the fracturing fluid.

The stratigraphic well would be drilled first, vertically to the Utica Shale formation, with a total measured depth of approximately 9,530 feet, to gather geologic information and obtain rock cores from the Marcellus Shale and Utica Shale formations. The Snyder E 1 well would then be plugged back with cement and a mechanical plug to facilitate the horizontal drilling of the proposed natural gas well, the Snyder E 1-A. As proposed, the Snyder E 1-A natural gas well would use the already constructed upper portion (i.e., conductor, surface casing, and part of intermediate casing) of the first well and be drilled horizontally and completed in the Marcellus Shale formation with a total measured depth of approximately 6,600 feet.

Gelled propane hydraulic fracturing involves the transport to the well site of large quantities of propane, a potentially explosive hydrocarbon that is heavier than air, the chilling of that propane, and the mixture of chemical additives into the propane. The resulting mixture would then be pumped under pressure down the well bore, through an aquifer, and out into the surrounding rock formation in a way intended to fracture that rock to increase the flow of gas out of the rock formation into the well.

Tioga Energy initially submitted applications to the Department for the subject well drilling permits in May and June 2015. Tioga Energy subsequently responded to two Department-issued Notices of Incomplete Applications (NOIA) and then supplemented its application filings through early 2018 with responses to additional Department demands for information.

Gelled propane hydraulic fracturing has not previously been reviewed under SEQRA or performed in New York State. Under the Tioga Energy proposal, the Snyder E 1-A well would be flared for approximately 15 days and, if deemed successful by Tioga Energy, operated to produce natural gas.

Reasons Supporting this Determination:

Because certain elements of the project (including the fracturing of the formation with gelled propane and the flowback to the surface of the propane) are not in conformance with the 1992 GEIS, Tioga Energy was required to submit a Full Environmental Assessment Form (FEAF). The additional information submitted on the FEAF and Tioga Energy's other submittals made in response to DEC's requests inform this positive declaration.

In 2015, the Department completed the environmental impact statement for High Volume Hydraulic Fracturing (HVHF) (2015 HVHF FSGEIS).[1] The 2015 HVHF FSGEIS supplemented the 1992 GEIS to assess the impacts of HVHF. HVHF is another fracturing method (like gelled propane hydraulic fracturing, it was not evaluated in the 1992 GEIS) that uses large quantities of water and chemical additives, in contrast to the use of propane gel. Gelled propane hydraulic fracturing poses potential adverse impacts similar in type and severity to those from HVHF activities that were analyzed by the Department in the 2015 HVHF FSGEIS.

[1] Final Supplemental Generic Environmental Impact Statement On the Oil, Gas and Solution Mining Regulatory Program, Regulatory Program for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs, NYSDEC May 2015 https://dec.ny.gov/energy/75370.html

The 2015 HVHF FSGEIS studied the cumulative impacts of large scale HVHF gas development across the Marcellus Shale region of New York State and set out an analysis of potential impacts based on a number of development scenarios set out in that FSGEIS. In analyzing cumulative impacts, the Department's 2015 HVHF FSGEIS Findings Statement, at page 3, found that:

> "Horizontal drilling [as is proposed in this action] ... facilitates natural gas extraction from many areas where conventional natural gas extraction had been commercially unprofitable. Therefore, drilling, well construction and well operation would likely be widespread in certain regions of the State and would impact areas that have previously not been subject to significant oil and gas development."

The applicant should assess whether widespread development of gas wells using the gelled propane hydraulic fracturing technology is foreseeable, and if so provide a comparative assessment of probable and potentially significant cumulative impacts from gelled propane hydraulic fracturing to those assessed in the 2015 FSGEIS to determine whether similar impacts would ensue from this action.[2] The requisite analysis for these impacts need not, however, duplicate the relevant analyses from the 2015 HVHF FSGEIS. Rather, the dSEIS should evaluate those impacts that have already been assessed in the 2015 HVHF FSGEIS and then, narratively compare the relevant findings from that study to impacts anticipated from the use of gelled propane hydraulic fracturing.

With respect to the site-specific proposal, the instant application to use gelled propane hydraulic fracturing to extract natural gas may cause the following significant adverse environmental impacts: (1) impacts to energy use and air resources, including through greenhouse gas emissions and their contribution to climate change; (2) impacts to public health; and (3) geologic impacts. Specifically, these potential significant adverse impacts include the following:

1- Air Resources and Greenhouse Gas Emissions

Gelled propane hydraulic fracturing operations, and subsequent operations at such wells, result in air emissions, including both greenhouse gas (GHG) emissions and emissions of other air pollutants, from several different types of sources. Climate change and energy-related impacts of gelled propane hydraulic fracturing wells are broadly consistent with those impacts from HVHF wells identified in the 2015 HVHF FSGEIS. The 2015 HVHF FSGEIS left the evaluation of gelled propane hydraulic fracturing to be considered under a subsequent review. There are areas of critical importance connected with the use of the proposed gelled propane hydraulic fracturing technology that were not addressed in the

[2] 6 NYCRR 617.10.

1992 GEIS. The 1992 GEIS evaluated neither contribution to and impacts from climate change from the proposed project, nor consistency with current state energy planning. Climate change has become an important environmental consideration since 1992. Accordingly, the potentially significant impacts of the action on climate change must be evaluated under the Guide for Assessing Energy Use and Greenhouse Gas Emissions in an Environmental Impact Statement (https://www.dec.ny.gov/regulations/56552.html).

Direct Emissions

The drilling and fracturing phase results in emissions from mobile sources, including trucks carrying propane and other equipment to the site, and from the on-site operation of equipment necessary for completing fracturing operations. Additionally, after fracturing and during production, fugitive methane and other contaminant releases (e.g., VOCs) occur, along with flaring of gas for a period (15 days for this project).[3] The applicant should also consider other potential GHG and other air emission impacts from production, including those resulting from preparation of the produced gas and any liquid products for transportation and sales.

Downstream (Indirect) Emissions

Furthermore, typically the natural gas produced by gelled propane hydraulic fracturing activities is ultimately combusted by an end-user (after transport through pipelines and compressor stations which may leak methane or result in additional GHG and other air pollutant emissions), resulting in additional GHG and other air pollutant emissions. These additional emissions are generally referred to as "downstream" or indirect emissions and they are an additional potential adverse environmental impact of gelled propane hydraulic fracturing activities that are reasonably foreseeable and must be considered as part of SEQRA review.

As the evidence and study of climate change becomes increasingly sophisticated, it is clear that the extraction of fossil fuels and the associated GHG emissions contributes to the significant impacts of climate change.[4] GHG emissions will impact the climate and increase the expense of adapting to climate change. With respect to additional cumulative and macro-impacts of fracturing or fossil fuel use in general, the Intergovernmental Panel on Climate Change considers lessening the world's dependence on fossil fuels key to reducing GHGs in the atmosphere and avoiding the worst effects of climate change.[5] The dSEIS must consider the potential impacts from advancing gelled propane hydraulic

[3] Note that the FEAF Part 1 prepared by the applicant incorrectly states, among other things, that there will be no methane emissions from the proposed project.

[4] http://www.ipcc.ch/report/sr15/

[5] IPCC AR5 WG3 Chapter 7 Energy Sources. IN IPCC, 2014. Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer et al.(eds)] Cambridge University Press, Cambridge

fracturing and how it affects State Energy Plan goals related to reducing New York's use of fossil fuels.

The State's overall goal is to reduce GHG emissions from 1990 levels 40 percent by 2030 and 80 percent by 2050, as discussed in the most recently issued State Energy Plan (2015)[6]. In addition, the State's Clean Energy Standard (CES) currently requires that 50% of the State's electricity come from renewable sources of energy by 2030. The applicant should address the extent to which the project would impede or promote the objectives of the CES and the State Energy Plan.

In addition, particularly if gelled propane hydraulic fracturing activities were to become widespread in New York, emissions of nitrogen oxides (NOx) from propane fracturing development (increased truck traffic and other engine operations) could contribute to increased ozone levels, including in the New York City metropolitan area, which is currently designated nonattainment for ozone. Other downwind areas, such as Albany-Schenectady-Troy, Poughkeepsie-Newburgh and Greater Connecticut (Hartford), are also areas of concern. Accordingly, gelled propane fracturing development could impact the ability of these areas to maintain air quality that meets the national ambient air quality standard (NAAQS) for ozone. While more widespread gelled propane hydraulic fracturing activities would contribute more to such attainment concerns, any incremental increase in emissions of nonattainment pollutants is a potential adverse environmental impact that must be considered for individual gelled propane hydraulic fracturing well activities.

2- Impacts on Human Health

As previously noted, the Snyder E 1-A well would utilize gelled propane hydraulic fracturing, a process involving the injection under pressure of gelled propane, a potentially dangerous material. In the past, some gelled propane hydraulic fracturing operations have resulted in explosions and injuries. Indeed, in June 2012, a dozen workers were injured — some seriously burned — when a well in Alberta, Canada, exploded during a stimulation operation using propane. (*Binghamton Press and Sun,* Oct. 5, 2015).

Additionally, hundreds of thousands of gallons of propane would be transported to the site for the gelled propane hydraulic fracturing operations. Some would be stored onsite and some would be on delivery trucks waiting to offload propane. Deliveries and removal of propane from the site would be performed using trucks driving on public roads. The transport and the stockpiling onsite of propane, a potentially explosive material, presents dangers.

Also, the three chemical additives that would be used for gelled propane hydraulic fracturing operations at the Tioga Energy proposed site include GelLP-10, a gelling agent;

[6] https://energyplan.ny.gov/

Activator XL-46D, an activator, and BrkLPP-10, a gel breaker. Adverse impacts from these agents, and any others that might be used, should be evaluated.

For these reasons, the Department concludes that Tioga Energy's proposed actions could have potentially important and significant adverse impacts on human health and safety. This includes public health and safety of onsite workers.

As described in the NYSDOH Public Health Review from December of 2014 for HVHF, several potential adverse environmental impacts similarly could result from gelled propane hydraulic fracturing. These impacts may be associated with adverse public health outcomes and include: 1) air impacts that could affect respiratory health due to increased levels of particulate matter, ozone, diesel exhaust, or volatile organic compounds; 2) drinking water impacts from underground migration of methane and/or fracturing fluid chemicals associated with faulty well construction or seismic activity; 3) surface spills from use, transport or storage of chemicals or wastewater potentially resulting in soil, groundwater, and surface water contamination; 4) surface water contamination resulting from inadequate wastewater treatment; 5) earthquakes and creation of fissures; and 6) climate change impacts due to methane, propane and other volatile organic compound releases to the atmosphere and their resulting public health impacts. The applicant must assess the likelihood and severity of these potential impacts resulting from the proposed action.

3- Geologic Resources: Naturally Occurring Radioactive Material (NORM) and Seismicity

Well drilling can bring NORM to the surface in the cuttings and NORM can accumulate in pipes and tanks (pipe scale and sludge). The highest concentrations of NORM are in production brine, but this may not present a risk to workers because the external radiation levels for those handling the brine are very low. However, the build-up of NORM in pipes and equipment has the potential to cause a significant adverse impact because it could expose workers handling pipes, for cleaning or maintenance, to increased radiation levels. Disposal of this equipment also may cause significant adverse impacts. Finally, wastes from the treatment of production brine may contain concentrated NORM.

The Department recognizes that there is uncertainty about whether gelled propane hydraulic fracturing can cause earthquakes and the potential magnitude of those earthquakes, even though much of the Marcellus and Utica Shales underlie portions of the state with the lowest seismic hazard class rating in New York. As discussed in the 2015 HVHF FSGEIS, the smallest measurable seismic events are typically between 1.0 and 2.0 magnitude on the Richter scale. In contrast, seismic events with magnitude 3.0 are typically large enough to be felt by people. Fluid injection of any kind, including fluid injected during gelled propane hydraulic fracturing operations, can trigger felt seismic events if the fluid reaches a geologic fault. While induced seismic events from this process are more typically associated with waste disposal or other long-term injections, seismic

events have been linked to hydraulic fracturing operations in the United Kingdom and Canada, and in the United States including in Ohio, Oklahoma and Texas. Earthquakes observed in Poland, Ohio, which were linked to hydraulic fracturing, occurred in an area with the same seismic hazard class rating as those portions of New York with the lowest seismic hazard class rating in the State.

Potential seismic events from gelled propane hydraulic fracturing could have more significant environmental impacts if they were to take place near subsurface water supply infrastructure. The applicant should identify and assess other risk factors that may increase the likelihood of induced seismicity resulting from gelled propane hydraulic fracturing.

These potential significant adverse environmental impacts should be assessed in the dSEIS.

Conclusion:

The proposed action may result in one or more significant adverse impacts to the environment, and therefore a dSEIS must be prepared. Accordingly, DEC hereby issues this positive declaration. DEC will be conducting public scoping, which will include a public comment period. Tioga Energy is responsible for preparing a draft scope and the Department will announce a public review of the draft scope in the Department's Environmental Notice Bulletin (http://www.dec.ny.gov/enb/enb.html). Following the public comment period on the draft scope, the Department will prepare a final scope pursuant to which Tioga Energy will develop the dSEIS. The Department will publish the availability of the dSEIS for public comment in the Environmental Notice Bulletin once the Department determines that the dSEIS is adequate for public review.

Contact:

Catherine Dickert, Director
New York State Department of Environmental Conservation
Division of Mineral Resources
625 Broadway
Albany, NY 12233