



A Woman Owned Business Enterprise

371 Hoes Lane, Suite 200, Piscataway, NJ 08854
Phone: 732-377-2040; Fax: 732-377-2044

June 28, 2022

Ms. Denise Grattan, Env. Analyst 2
NYSDEC Region 2
Division of Environmental Permits
47-40 21st Street, 1 Hunters Point Plaza
Long Island City, New York, NY 11101-5401

**Subject: Queens Fresh Meadows Facility
Response #1 to NOIA dated 6/8/2022: Batch 748223**

Re: [1] D. Grattan e-mails dated 6/ 9, 14, 21/ 2022
[2] NOIA ASF Permit Application dated 6/8/2022; Batch 748223

[3] Application for an Air State Facility Permit dated 5/23/2022
[4] Title V Air Permit ID#: 2-6306-00071/00003
Effective Date: 8/29/2017; Expiration Date: 8/28/2022

Dear Ms. Grattan:

This letter transmits two of the four items identified in the recent NOIA [references 1 and 2]. Attached are items 1 and 3 of that NOIA, respectively, a SEQR Full Environmental Assessment Form, Part 1 and a CLCPA analysis. These items are submitted to comply with your 6/30/2022 requested date for submission. The SEQR document is based on the EAF Mapper Summary.

We are working on preparing a draft Public Participation Plan [PPP] for review by the Department and will submit as soon as possible. In the interim, the attached documents can be reviewed.

Thank you for the guidance provided aiding in the preparation of these documents.

Very truly yours,
Terranext, LLC

Richard Rao
Regional Director – NE Operations

Attachments:

- 1 SEQR Full Environmental Assessment Form, Part 1 [FEAF Part 1]
- 2 CLCPA Analysis

cc:

Mr. Christopher Johnson, Chief Engineer, Queens Fresh Meadows. w/Attachments

Attachment 1

Queens Fresh Meadows

Facility ID# 2-6306-00071/00003

SEQR Full Environmental Assessment Form, Part 1

[FEAF Part 1]

**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 applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Replace Air Title V Permit with Air State Facility Permit		
Project Location (describe, and attach a general location map): Fresh Meadows is a neighborhood in the northeastern section of the New York City borough of Queens.		
Brief Description of Proposed Action (include purpose or need): The facility consists of a residential complex with 3,285 units situated on 150 acres in Flushing Queens. The buildings heat and potable hot water are provided by eight [8] boilers firing natural gas as the primary fuel and distillate #2 oil as the backup fuel. The facility operates its boilers under an Air Title V [ATV] permit, ID#2-6306-00071. The ATV expires in August 2022 and must be either renewed or replaced by another type air permit. The proposed action is to not renew the ATV and replace it with an Air State Facility [ASF] permit by limiting the annual NOx emission rate to less than 25 tons.		
Name of Applicant/Sponsor: Christopher Johnson	Telephone: 718-454-6700 ext.5544	E-Mail: ChristopherJ@cammebys.com
Address: 67-10 192nd Street		
City/PO: Fresh Meadows	State: New York	Zip Code: 11365
Project Contact (if not same as sponsor; give name and title/role):	Telephone:	E-Mail:
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Queens Fresh Meadows LLC	Telephone:	E-Mail:
Address: 188-02 64th Avenue		
City/PO: Fresh Meadows	State: New York	Zip Code: 11365

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 Counsel, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village Planning Board or Commission <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
e. County agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	New York State of Environmental Conservation [NYSDEC]	May 23, 2022
h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	US Environmental Protection Agency [USEPA]	May 23, 2022
i. Coastal Resources. i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?
R4, PC; Queens Community District 8, Council District 23

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

c. Is a zoning change requested as part of the proposed action? Yes No
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? District #26

b. What police or other public protection forces serve the project site?
Precinct #107

c. Which fire protection and emergency medical services serve the project site?
Engine 299 and Ladder 152 - Utopia Pkwy

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)? residential units [Qualification: proposed action is only air permit revision.]

b. a. Total acreage of the site of the proposed action? _____ 150 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? _____ 150 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 the proposed action be constructed in multiple phases? Yes No
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.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
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? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) Yes No
 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 the proposed action cause or result in disturbance to bottom sediments? Yes No

If Yes, describe: _____

iv. Will the 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), what is the 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): _____

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 a 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 the 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)

 None
 ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

 None
 iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

 Eight "small" boilers

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:
 • _____ 0 Tons/year (short tons) of Carbon Dioxide (CO₂)
 • _____ 0 Tons/year (short tons) of Nitrous Oxide (N₂O)
 • _____ 0 Tons/year (short tons) of Perfluorocarbons (PFCs)
 • _____ 0 Tons/year (short tons) of Sulfur Hexafluoride (SF₆)
 • _____ 0 Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs)
 • _____ 0 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 truck trips/day and type (e.g., semi trailers and dump trucks): _____

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 1/2 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:		ii. During Operations:	
• Monday - Friday:	_____ None	• Monday - Friday:	_____ 24 / 7
• Saturday:	_____ None	• Saturday:	_____ 24
• Sunday:	_____ None	• Sunday:	_____ 24
• Holidays:	_____ None	• Holidays:	_____ 24

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:

ii. Will the 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:

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 the 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 the 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 Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces			0
• Forested			0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			0
• Agricultural (includes active orchards, field, greenhouse etc.)			0
• Surface water features (lakes, ponds, streams, rivers, etc.)			0
• Wetlands (freshwater or tidal)			0
• Non-vegetated (bare rock, earth or fill)			0
• Other Describe: _____			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:
children's nursery school, children learning center, senior center

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): C241050
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? _____ N. A. 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: Not Applicable _____ %
 _____ %
 _____ %

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

e. Drainage status of project site soils: Well Drained: _____ 100 % of site
 Moderately Well Drained: _____ % of site
 Poorly Drained _____ % of site

f. Approximate proportion of proposed action site with slopes: 0-10%: _____ 100 % of site
 10-15%: _____ % of site
 15% or greater: _____ % 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: Sole Source Aquifer Names: Brooklyn-Queens SSA _____



m. Identify the predominant wildlife species that occupy or use the project site: _____
 None _____

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
 If Yes:
 i. Species and listing (endangered or threatened): _____

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
 If Yes:
 i. Species and listing: _____

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: _____

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: _____

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 the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State 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 five 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.

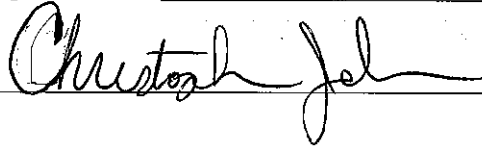
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

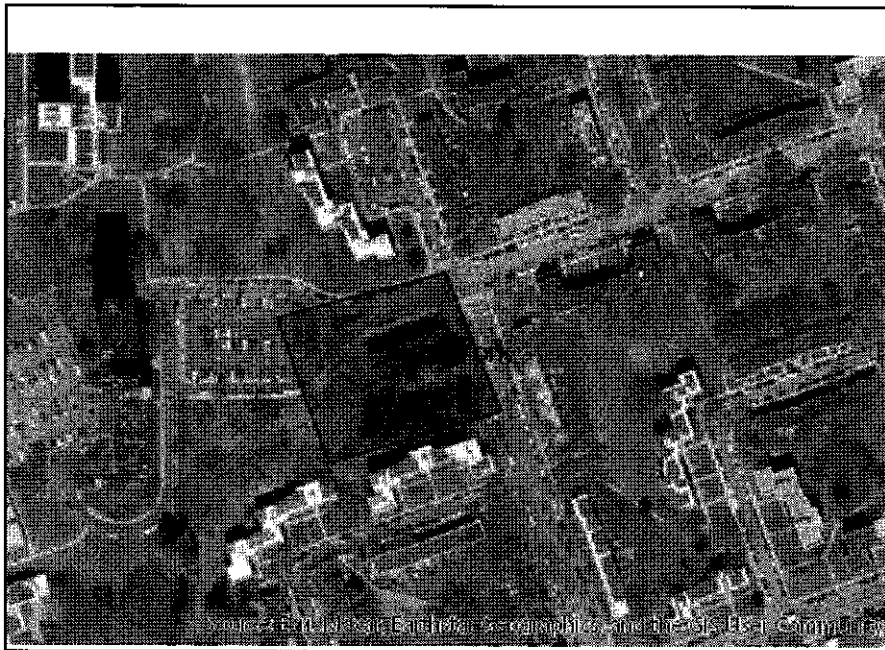
I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Christopher Johnson

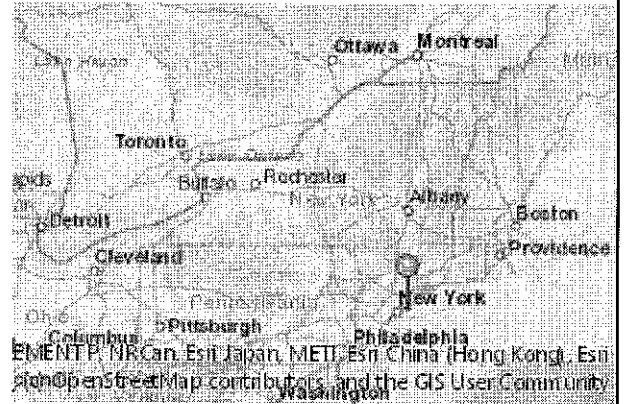
Date 06/24/2022

Signature 

Title Chief Engineer Power Plant



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	C241050
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Sole Source Aquifer Names:Brooklyn-Queens SSA
E.2.n. [Natural Communities]	No

E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

Attachment 2

Queens Fresh Meadows
Facility ID# 2-6306-00071/00003

CLCPA Analysis

**Queens Fresh Meadows
ASF Application
Application ID# 2-6306-00071/00004**

CLCPA Analysis

References:

- **NYSDEC NOIA Batch No. 748223 dated 6/8/2022**
- **NYSDEC E-mail dated 6/21/2022**
- **NYSDEC CP-49 / Climate Change and DEC Action**
- **NYSDEC DAR -21**

**By
Terranext, LLC
371 Hoes Lane, Suite 200
Piscataway, NJ 08854
732-377-2040
rrao@terranext.net**

CLCLA Analysis

INTRODUCTION

The Queens Fresh Meadows Facility [QFM], DEC ID# 2-6306-00071, currently operates it eight [8] boilers under a NYSDEC Air Title V permit [ATV], which expires 8/28/2022. The facility fires natural gas as its primary fuel with distillate #2-oil as a backup fuel. QFM has reviewed its annual fuel consumption for years 2011 through 2021. Based upon this review, it has been concluded that QFM qualifies to operate under an Air State Facility [ASF] permit instead of an ATV permit. QFM submitted an application for an ASF permit dated May 23, 2022.

In review of the ASF permit application, NYSDEC has issued a Notice of Incomplete Application [NOIA] dated June 8, 2022; and a clarification e-mail dated June 21, 2022. The NOIA with clarification demands that CLCPA¹ analysis be conducted and submitted to enable the application attain complete status. This document presents the CPCLA analysis for the QFM's ASF permit application.

6NYCRR Part 496 addresses Statewide Greenhouse Gas [GHG] emission limits. §496.4 (a) states the estimated level of statewide GHG emissions in 1990 as 409.48 million tons of carbon dioxide equivalent [CO_{2e}]. §496.4 (b) states the objective statewide GHG emission levels in years 2030 and 2050 as a percentage of the 1990 level, respectively, 60 percent and 15 percent; or 245.87 and 61.47 million tons of carbon dioxide equivalent [CO_{2e}].

NYSDEC DAR-21, Climate Leadership and Community Protection Act and Air Permit Applications [Draft] states that when issuing permits, Section 7 (2) of CLCPA requires all state agencies to consider “whether such decisions are inconsistent with, or will interfere with, the attainment of the statewide GHG emission limits...” It also states that:

- It is important that each CLCPA analysis include potential GHG emissions from each porting of the project.
- A permit renewal that does not include a significant modification and would not lead to an increase in actual or potential GHG emissions would in most circumstances be considered consistent with the CLCPA pending finalization of the scoping plan and future regulations.
- Calculations describing the project's direct GHG emissions on PTE and actual emissions bases, using appropriate emission factors such as those found in USEPA's AP-42, et cetera in units of CO_{2e} based on GWP-20 years are required.

¹ CLCPA – Climate Leadership and Community Protection Act

CLCLA Analysis

PROJECT SCOPE

The project scope is solely an application to operate the QFM facility under an ASF permit instead of an ATV permit. The project scope does not include additional emission sources, changes to the existing emission sources in terms of capacity or types of fuel usage. The designation of emission units, emission sources and emission points for the ASF permit is identical to the designations in the ATV permit.

The project scope consists of opting out of the ATV permit in accordance with 6NYCRR Part 201-7.1, emission capping in facility permits. The project essentially is the commitment of the QFM facility to limit annual NOx emissions to less than or a maximum of 24.9 tons [49,800 lbs.].

CLCPA ANALYSIS

The current ATV permit is associated with a NOx PTE rate of 198,120 lbs./yr.². The above project action will reduce the NOx PTE rate to 49,800 lbs. /yr. Table 1 of the ASF application lists the eight boiler capacities – four boilers rated at 16.7 million Btu heat input per hour and four boilers rated at 23.4 million Btu heat input per hour. Table 1 also lists the facility’s annual fuel consumption for the years 2011 through 2021 with associated capacity factor. Table 7 of the ASF application lists the annual fuel consumption as recorded in therms for natural gas and gallons for #2 oil with the associated annual NOx emission rates in tons per year. Tables 1 and 7 are included with this analysis. As shown by these tables:

1. The maximum annual NOx emission rate for rate during this eleven-year period is 15.7 tons. The average annual NOx emission rate is 13.7 tons.
2. The highest capacity factor for firing natural gas during this eleven-year period is 21 percent.

Table 9 presents the calculation of GHG emission rates associated with this project [application for a ASF permit] relative to the GHG emission rates associated with the ATV permit.

Calculation #1:

The ATV PTE NOx emission limit is 198,120 lbs. per year as reported in NYSDEC’s ATV Permit Review Report page 6. Utilizing USEPA AP-42 emission factor [E.F.] for NOx emissions, 100 lbs. per million SCF NG³, limits the annual natural gas fuel consumption under ATV at 1981.2 million SCF.

² NYSDEC Permit Review Report ID:2-6306-00071/00003, dated 8/29/2017, page 6 of 17.

³ Standard Cubic Feet Natural Gas; EPA AP-42 Table 1.4-1 NOx emission factor for small boilers

CLCLA Analysis

Calculation #2:

Utilizing the natural gas high heating value [NG HHV] of 1026 Btu per SCF NG and the maximum natural gas annual consumption from “calculation #1”, the total annual heat input is calculated at 2,032,711 million Btu. Utilizing the GHG emission factor for CO₂ for firing natural gas [kg CO₂ per million Btu] and converting from kg to pounds to metric tons, the annual GHG CO₂ emission rate is 107,856 metric tons [calculation 2.4]. The associated calculations for GHG CH₄ and N₂O are, respectively, 1 and 0.1 metric tons [calculations 2.5 and 2.6]. Utilizing the GWP-20 factors, the CO_{2e} for CO₂, CH₄, and N₂O emissions totals at 107,957 metric tons.

Calculation #1:

The ASF Permit PTE NOx emission limit is 49,800 lbs. per year as stated in NYSDEC’s Draft ASF Permit Working Copy dated 6/2/2022. Utilizing USEPA AP-42 emission factor [E.F.] for NOx emissions, 100 lbs. per million SCF NG⁴, limits the annual natural gas fuel consumption under ATV at 498 million SCF.

Calculation #2:

Utilizing the natural gas high heating value [NG HHV] of 1026 Btu per SCF NG and the maximum natural gas annual consumption from “calculation #1”, the total annual heat input is calculated at 510,948 million Btu. Utilizing the GHG emission factor for CO₂ for firing natural gas [kg CO₂ per million Btu] and converting from kg to pounds to metric tons, the annual GHG CO₂ emission rate is 27,111 metric tons [calculation 2.4]. The associated calculations for GHG CH₄ and N₂O are, respectively, 1 and 0.1 metric tons [calculations 2.5 and 2.6]. Utilizing the GWP-20 factors, the CO_{2e} for CO₂, CH₄, and N₂O emissions totals at 27,136 metric tons

The project [ASF Permit Application] is associated with a 75% reduction in PTE GHG emissions compared to renewing the current ATV permit.

The project GHG reduction, 75%, is almost twice NYS’s 40% reduction for year 2030 and is 10% less than NYS’s 85% reduction for year 2050.

The current ATV permit PTE GHG annual emission rate, 107957 metric tons, is 0.026% of NYS’s estimated GHG emissions for year 1990. The project’s [ASF permit application’s] PTE GHG annual rate, 27136 metric tons, is 0.011% of NYS’s objective annual GHG emission rate for year 2030.

Concerning year 2050, the boilers would be 50 years in operation. It is questionable if they would still be active.

⁴ Standard Cubic Feet Natural Gas; EPA AP-42 Table 1.4-1 NOx emission factor for small boilers

CLCLA Analysis

The average actual GHG emissions for the eleven-year period is presented in Table 9A. It is about 52% of the project's PTE GHG CO_{2e} rate.

It is concluded that this project, ASF permit application instead of ATV permit renewal, is in alignment with NYS's CLCPA objectives.

Attachments:

Table 1 of ASP Permit Application – Combustion Equipment Ratings

Table 7 of ASP Permit Application – Actual Annual Fuel Consumption
Years 2011 – 2021

Table 9 – ASF Permit Application CLCPA Analysis GHG PTE Emission Rates

Table 9A – ASF Permit Application CLCPA Analysis GHG Actual Rates

Table 1
Queens Fresh Meadows Facility
67-10 192nd St., Flushing, NY 11365

COMBUSTION EQUIPMENT RATINGS
Annual Fuel Consumption Rates

Fuel Oil and Gas Parameters (AP-42, Appendix A)

Natural Gas:	1,020	Btu/scf
Residual Oil:	150,000	Btu/gal
Distillate Oil:	140,000	Btu/gal
Diesel Oil:	138,500	Btu/gal
hp:	2,542.5	Btu/hr
kW:	1.341	hp

EQUIPMENT SOURCES

BOILERS			Heat Input	Natural Gas
	MBH (gas)	GPH (#2-oil)	X 10⁶ Btu/hr	SCFH
1	Cleaver Brooks MD7197	16,700	119.3	16.7
2	Cleaver Brooks MD7197	16,700	119.3	16.7
3	Cleaver Brooks MD7197	16,700	119.3	16.7
4	Cleaver Brooks MD7197	16,700	119.3	16.7
5	Cleaver Brooks MD3531	23,400	167.1	23.40
6	Cleaver Brooks MD3531	23,400	167.1	23.40
7	Cleaver Brooks MD3531	23,400	167.1	23.40
8	Cleaver Brooks MD3531	23,400	167.1	23.40
Total		160,400	1,146	160

X 10⁶ Btu/yr **X 10⁶ SCF/yr** **Oil- X10³ gal/yr**
 1377552941 1377.55 10036

Annual Fuel Consumption Rates		
Year	#2-Oil gallons	Nat'l Gas X 10 ⁶ SCF

Capacity Factor	
Nat'l Gas	#2 oil

2011	48916	264.3
2012	11685	243.0
2013	45636	231.4
2014	290763	255.4
2015	228088	268.8
2016	63616	273.2
2017	61145	250.4
2018	78361	281.9
2019	71460	286.8
2020	13898	198.9
2021	14308	285.5
Average	84352	258
Maximum	290763	286.8

19%	0.5%
18%	0.1%
17%	0.5%
19%	2.9%
20%	2.3%
20%	0.6%
18%	0.6%
20%	0.8%
21%	0.7%
14%	0.1%
21%	0.1%
19%	1%
21%	3%

**Table 7
Fresh Meadows
Actual Annual Fuel Consumption
Years: 2011 - 2021**

Facility ID# 2-6306-00071/00003

Year	Nat'l Gas		Btu 100000	Natural Gas: 1,020	Btu/scf	NOx		
	DKT 1	therm 10				Gas lbs./10 ⁶ 100	Oil SCF lbs./gal 0.02	
						NOx - tons/yr		
				#2-Oil		Gas	Oil	Total
Year	Therms	X10 ⁶ Btu	X 10 ⁶ SCF	Gallons				
2011	2696120	269612	264.3	48916	13.2	0.49	13.71	
2012	2474100	247410	242.6	11685	12.1	0.12	12.24	
2013	2359990	235999	231.4	45636	11.6	0.46	12.02	
2014	2604590	260459	255.4	290763	12.8	2.91	15.68	
2015	2742100	274210	268.8	228088	13.4	2.28	15.72	
2016	2786360	278636	273.2	63616	13.7	0.64	14.29	
2017	2553620	255362	250.4	61145	12.5	0.61	13.13	
2018	2875660	287566	281.9	78361	14.1	0.78	14.88	
2019	2925140	292514	286.8	71460	14.3	0.71	15.05	
2020	2029230	202923	198.9	13898	9.9	0.14	10.09	
2021	2912060	291206	285.5	14308	14.3	0.14	14.42	
Average	2632634	263263	258	84352	12.9	0.8	13.7	
Maximum	2925140	292514	286.8	290763	14.3	2.9	15.7	

**Table 9
Fresh Meadows
ASF Permit Application
CLCPA Analysis
GHG PTE Emission Rates**

Facility ID# 2-6306-00071/00003

1	Title V PTE NOx emission limit	lbs./yr	198120	Note 1	1	ASF Permit Appl. PTE NOx Limit	lbs./yr	49800	Note 1
1.1	NOx emission factor [EPA AP-42]	lbs./10 ⁶ SCF	100	Note 2	1.1	NOx emission factor [EPA AP-42]	lbs./10 ⁶ SCF	100	Note 2
1.2	Max. Nat'l Gas Annual consumption	10 ⁶ SCF /yr	1981.2		1.2	Max. Nat'l Gas Annual consumption	10 ⁶ SCF /yr	498	
2	GHG emissions annual rate				2	GHG emissions annual rate			
2.1	NG HHV	10 ⁶ Btu / scf	0.001026		2.1	NG HHV	10 ⁶ Btu / scf	0.001026	
2.2	NG Heat Input /yr	NG 10 ⁶ Btu/yr	2032711		2.2	NG Heat Input /yr	NG 10 ⁶ Btu/yr	510948	
2.3	E.F. CO ₂	kg CO ₂ per 10 ⁶ Btu	53.06	Note 3	2.3	E.F. CO ₂	kg CO ₂ per 10 ⁶ Btu	53.06	Note 3
2.4	CO ₂ Annual emission rate	kg CO ₂ per yr	107855656		2.4	CO ₂ Annual emission rate	kg CO ₂ per yr	27110901	
	kg to lbs.		2.2046			kg to lbs.		2.2046	
		lbs CO ₂ per yr	237778579.8				lbs CO ₂ per yr	59768692	
		lbs. to metric tons	2204.6				lbs. to metric tons	2204.6	
		metric tons CO ₂ per yr	107856				metric tons CO ₂ per yr	27111	
2.5	E.F. CH ₄	kg CH ₄ per 10 ⁶ Btu	0.001	Note 4	2.5	E.F. CH ₄	kg CH ₄ per 10 ⁶ Btu	0.001	Note 4
	CH ₄ Annual emission rate	kg CH ₄ per yr	2033			CH ₄ Annual emission rate	kg CH ₄ per yr	511	
		metric tons CH ₄ per yr	1				metric tons CH ₄ per yr	0.2	
2.6	E.F. N ₂ O	kg N ₂ O per 10 ⁶ Btu	0.0001	Note 4	2.6	E.F. N ₂ O	kg N ₂ O per 10 ⁶ Btu	0.0001	Note 4
	N ₂ O Annual emission rate	kg N ₂ O per yr	203.3			N ₂ O Annual emission rate	kg N ₂ O per yr	51.1	
		metric tons N ₂ O per yr	0.1				metric tons N ₂ O per yr	0.02	
2.7	Carbon dioxide equivalent value [CO _{2e}]				2.7	Carbon dioxide equivalent value [CO _{2e}]			
	GWP20			Note 5		GWP20			Note 5
	CO ₂		1			CO ₂		1	
	CH ₄		84			CH ₄		84	
	N ₂ O		264			N ₂ O		264	
	CO ₂	[CO _{2e}]	metric tons			CO ₂	[CO _{2e}]	metric tons	27111
	CH ₄	[CO _{2e}]	metric tons			CH ₄	[CO _{2e}]	metric tons	19
	N ₂ O	[CO _{2e}]	metric tons			N ₂ O	[CO _{2e}]	metric tons	6
	Total	[CO_{2e}]	metric tons			Total	[CO_{2e}]	metric tons	27136

GHG Emissions:		[CO_{2e}] metric tons
ATV Permit		107957
ASF Permit		27136
% Reduction - ASF Permit vs ATV Permit		-75%
1990 NYS		409480000
ATV Permit Percent		0.026%
2030 NYS		245870000
ASF Permit Percent		0.011%

- Notes:
- 1 NYSDEC ATV Permit Review Report page 6, or, NYSDEC Draft ASF Working Copy 6/2/2022; PC2
 - 2 EPA AP-42 Table 1.4-1 NOx Emission Factor, small boilers, uncontrolled
 - 3 40 CFR Part 98 Table C-1 updated 12/9/2016
 - 4 40 CFR Part 98 Table C-2 updated 12/9/2016
 - 5 NYSDEC Part 496.5

**Table 9A
Fresh Meadows
ASF Permit Application
CLCPA Analysis
GHG Average Actual Rate**

Facility ID# 2-6306-00071/00003

1	Title V PTE NOx emission limit	lbs./yr	198120	Note 1	1	ASF Permit Appl. PTE NOx Limit	lbs./yr	N. A.	Note 1
1.1	NOx emission factor [EPA AP-42]	lbs./10 ⁶ SCF	100	Note 2	1.1	NOx emission factor [EPA AP-42]	lbs./10 ⁶ SCF	100	Note 2
1.2	Max. Nat'l Gas Annual consumption	10 ⁶ SCF /yr	1981.2		1.2	Average Nat'l Gas Annual consumption - 2011-2021	10⁶ SCF /yr	258	Note 6
2	GHG emissions annual rate				2	GHG emissions annual rate			
2.1	NG HHV	10 ⁶ Btu / scf	0.001026		2.1	NG HHV	10 ⁶ Btu / scf	0.001026	
2.2	NG Heat Input /yr	NG 10 ⁶ Btu/yr	2032711		2.2	NG Heat Input /yr	NG 10 ⁶ Btu/yr	264853	
2.3	E.F. CO ₂	kg CO ₂ per 10 ⁶ Btu	53.06	Note 3	2.3	E.F. CO ₂	kg CO ₂ per 10 ⁶ Btu	53.06	Note 3
2.4	CO ₂ Annual emission rate	kg CO ₂ per yr	107855656		2.4	CO ₂ Annual emission rate	kg CO ₂ per yr	14053107	
	kg to lbs.		2.2046			kg to lbs.		2.2046	
		lbs CO ₂ per yr	237778579.8				lbs CO ₂ per yr	30981479	
		lbs. to metric tons	2204.6				lbs. to metric tons	2204.6	
		metric tons CO ₂ per yr	107856				metric tons CO ₂ per yr	14053	
2.5	E.F. CH ₄	kg CH ₄ per 10 ⁶ Btu	0.001	Note 4	2.5	E.F. CH ₄	kg CH ₄ per 10 ⁶ Btu	0.001	Note 4
	CH ₄ Annual emission rate	kg CH ₄ per yr	2033			CH ₄ Annual emission rate	kg CH ₄ per yr	265	
		metric tons CH ₄ per yr	1				metric tons CH ₄ per yr	0.1	
2.6	E.F. N ₂ O	kg N ₂ O per 10 ⁶ Btu	0.0001	Note 4	2.6	E.F. N ₂ O	kg N ₂ O per 10 ⁶ Btu	0.0001	Note 4
	N ₂ O Annual emission rate	kg N ₂ O per yr	203.3			N ₂ O Annual emission rate	kg N ₂ O per yr	26.5	
		metric tons N ₂ O per yr	0.1				metric tons N ₂ O per yr	0.01	
2.7	Carbon dioxide equivalent value [CO _{2e}]				2.7	Carbon dioxide equivalent value [CO _{2e}]			
	GWP20			Note 5		GWP20			Note 5
	CO ₂		1			CO ₂		1	
	CH ₄		84			CH ₄		84	
	N ₂ O		264			N ₂ O		264	
	CO ₂	[CO _{2e}]	metric tons			CO ₂	[CO _{2e}]	metric tons	14053
	CH ₄	[CO _{2e}]	metric tons			CH ₄	[CO _{2e}]	metric tons	10
	N ₂ O	[CO _{2e}]	metric tons			N ₂ O	[CO _{2e}]	metric tons	3
	Total	[CO_{2e}]	metric tons			Total	[CO_{2e}]	metric tons	14066

GHG Emissions:

ATV Permit	[CO_{2e}] metric tons	107957
ASF Permit		14066
% Reduction - ASF Permit vs ATV Permit		-87%
ASF Permit PTE		27136
ASF Permit Actual		14066
% Actual vs PTE		52%

Notes:

- 1 NYSDEC ATV Permit Review Report page 6, or, NYSDEC Draft ASF Working Copy 6/2/2022; PC2
- 2 EPA AP-42 Table 1.4-1 NOx Emission Factor, small boilers, uncontrolled
- 3 40 CFR Part 98 Table C-1 updated 12/9/2016
- 4 40 CFR Part 98 Table C-2 updated 12/9/2016
- 5 NYSDEC Part 496.5
- 6