NEW YORK STATE | Adirondack Park Agency

MICHAEL HOPMEIER – UNCONVENTIAL CONCEPTS INC PULSIFER LOGGING LLC

P2021-0276

November 13, 2025

Presentation Overview

Staff Recommendation → Proceed to an adjudicatory hearing

- Jurisdiction
- Conclusions of Law
- Project Location
- Brief History of the Property & Project Application History
- Existing Conditions
- Proposed Project
- Potential Project Impacts
- Public Comment & Review by Others
- Staff Recommendation, Hearing Criteria, and Hearing Issues

Proposed Project

- Construction and operation of a howitzer testing range for testing the internal ballistics of cannon barrels.

- APA Act § 809
  - Class B Regional Project
  - 810(2)(c)(16) – Application states this is a “commercial use.” Involves less than twenty-five hundred square feet of floor space.

Conclusions of Law

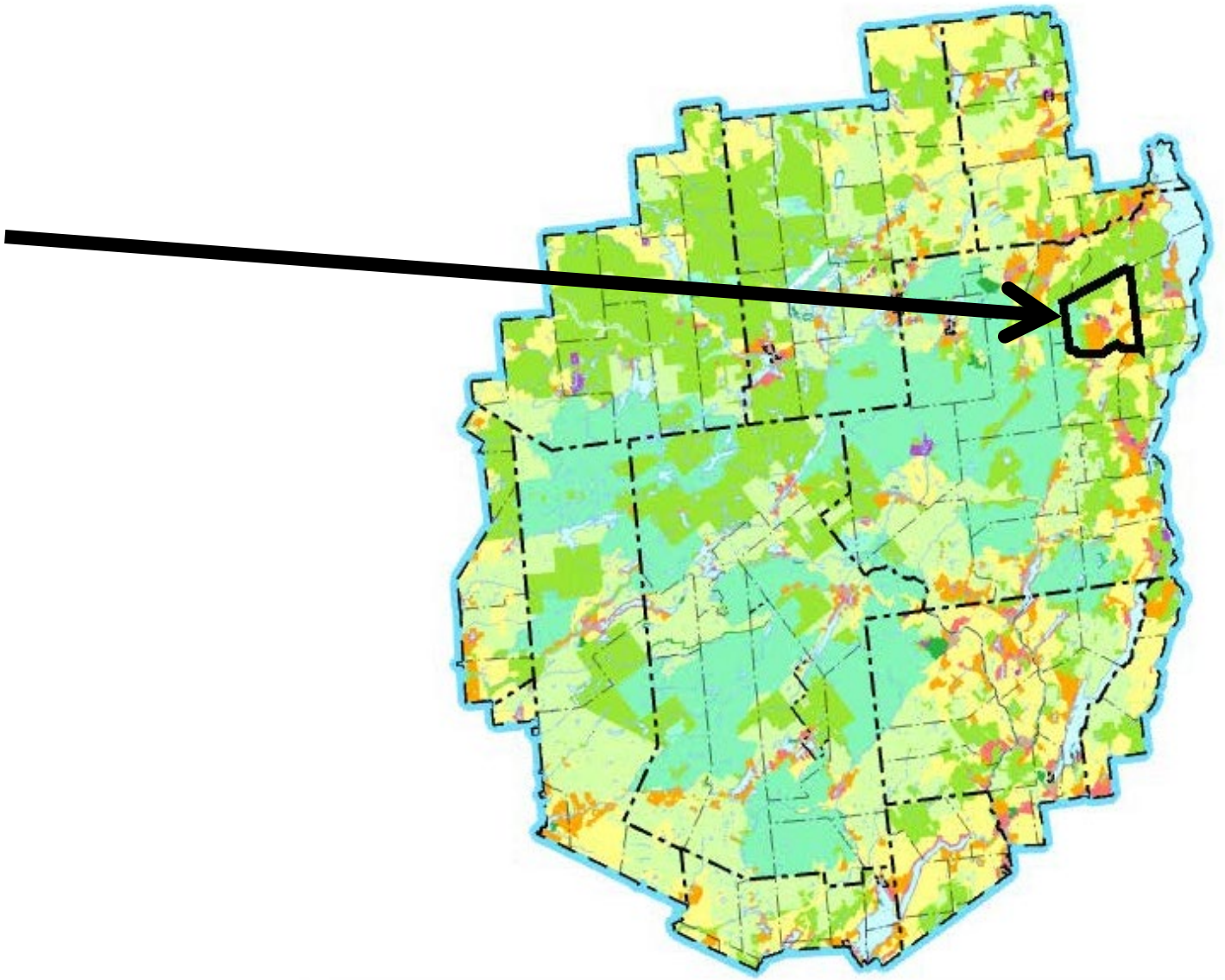
- To issue a permit, the Agency must find that the development authorized is:
  - Consistent with land use and development plan
  - Compatible with character description and purposes, policies, and objectives of each land use area
  - No undue adverse impact on resources of the Park
  - Consistent with overall intensity guidelines
  - Complies with shoreline restrictions

Staff Recommendation: Proceed to an adjudicatory hearing

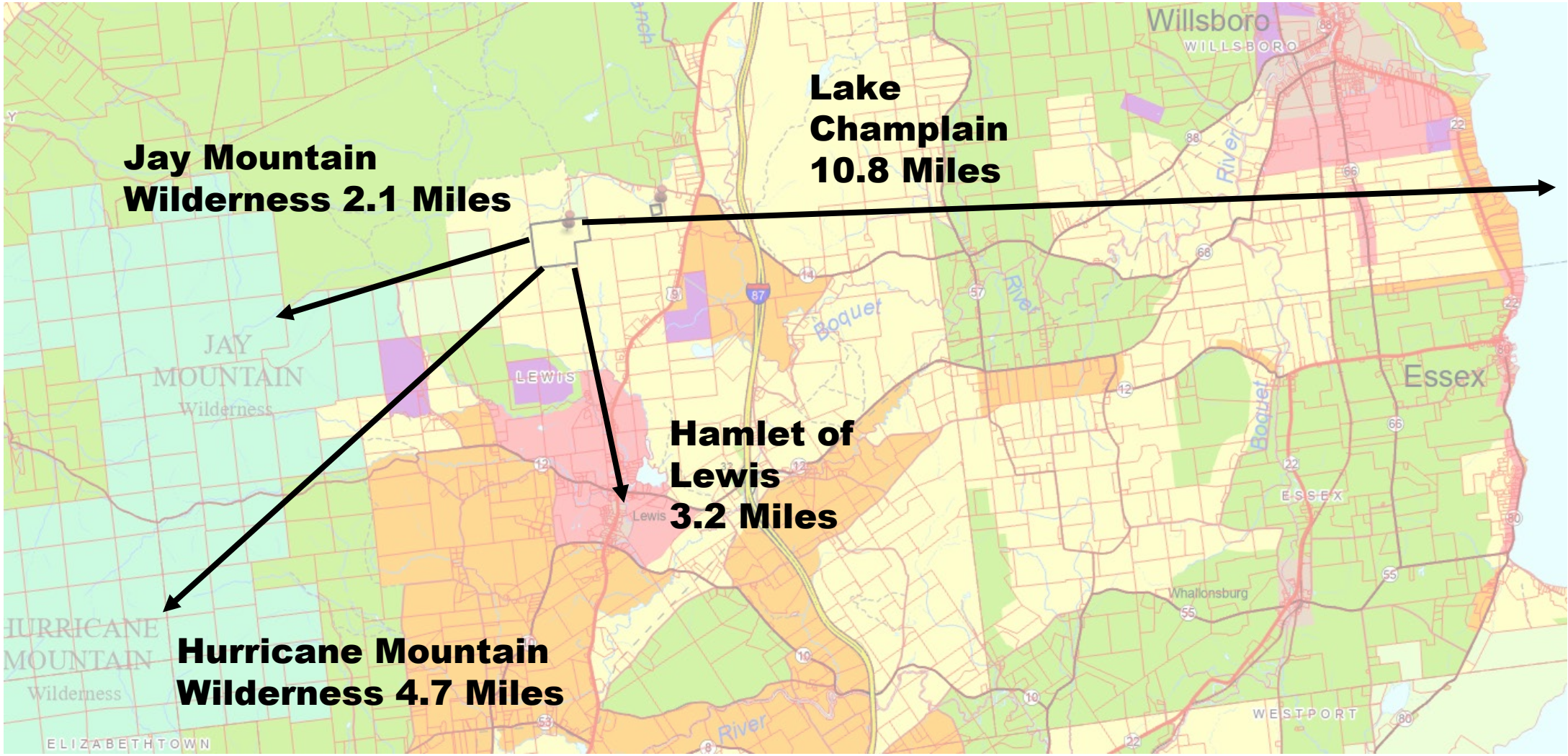
Project Location

Project Location

Town of Lewis,
Essex County



Project Location

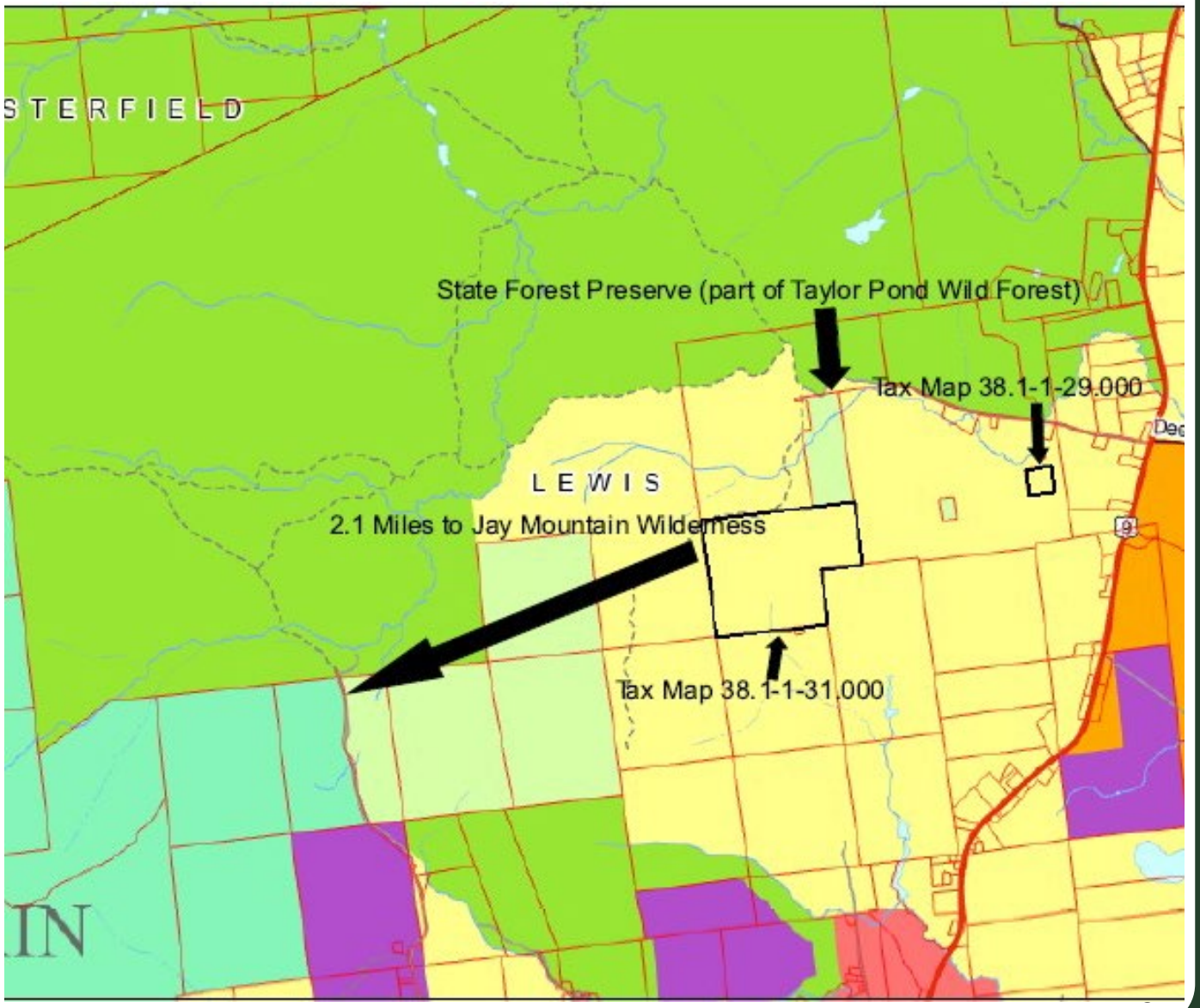


Project Location

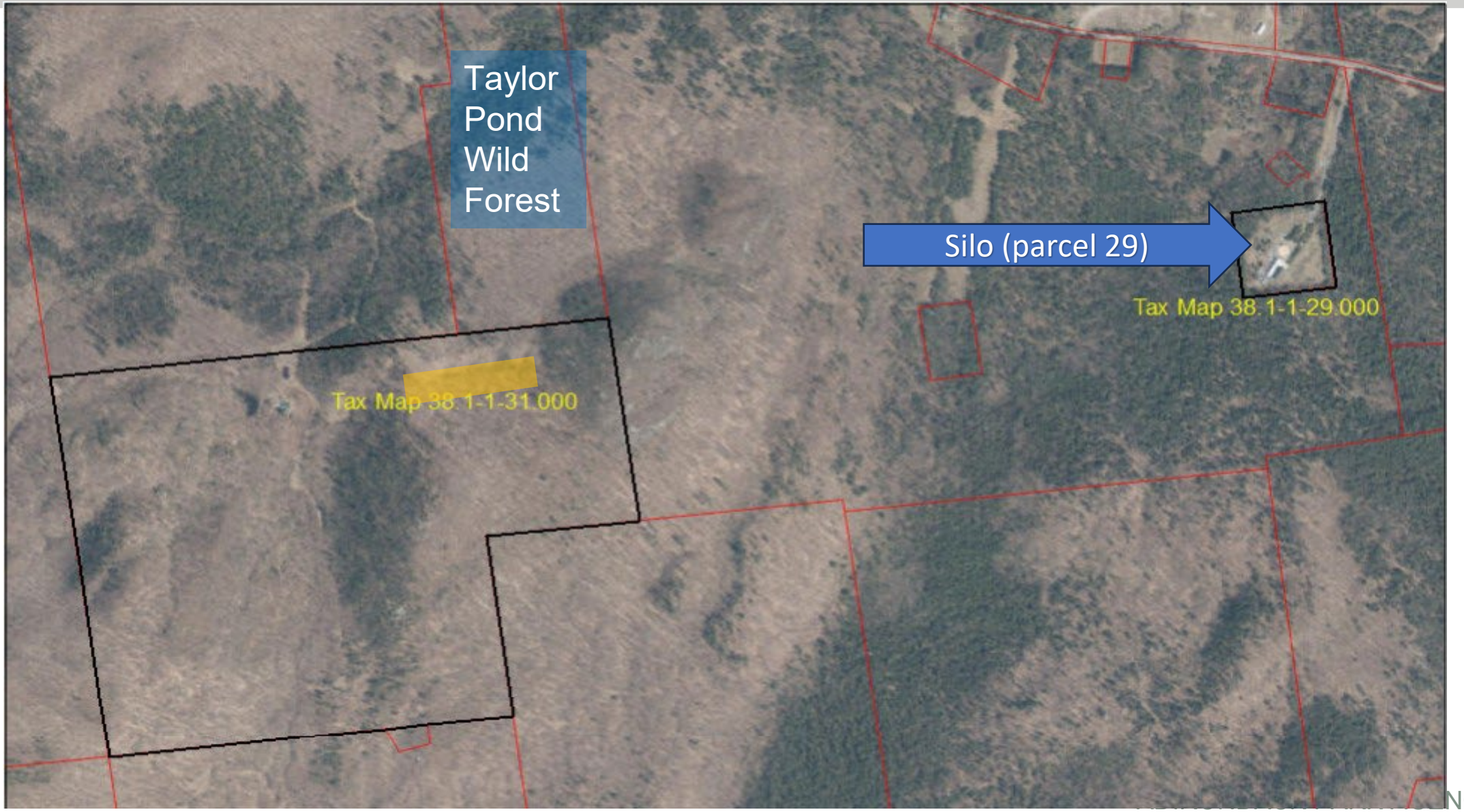
Land Use Area Map

- **Tax Map 38.1-1-29.000**
  8.26 Acres
  Owner – Diversified
  Upstate Enterprises, LLC
  (Michael Hopmeier)

- **Tax Map 38.1-1-31.000**
  197 Acres
  Owner- Pulsifer Logging LLC



Project Location



Brief History of the Property and Project Application

Brief History and Project Application

- In 1962 the US Government constructed 12 Atlas F Missile Silos in upstate NY. The site located on Lot 29 was decommissioned in 1965.
- In 2015 Diversified Upstate Enterprises LLC (Unconventional Concepts Inc) purchased Lot 29, 87 Hale Hill Lane, Lewis NY
- September 22, 2021 – APA issued jurisdictional determination J2021-0870 stating permit is required for proposed project.
- November 19, 2021 – Sponsor submitted application for a commercial use consisting of a shooting range for use in supporting research and development operations.

Brief History and Project Application

- **2021 to 2025: Six Notices of Incomplete Permit Application**
- **February 2024 - Applicant appealed 5th NIPA to the Agency Board**
- **May 2024 - APA Board unanimously denied appeal and upheld the 5th NIPA**
- **September 26, 2025 - Application deemed complete and under review**
- **October 1 to October 30 - Public Comment Period**

Existing Conditions

Existing Conditions

87 Hale Hill Lane
(Lewis NY)
Parcel 29.000

Existing Conditions

Hale Hill Lane Pictures

Existing Conditions

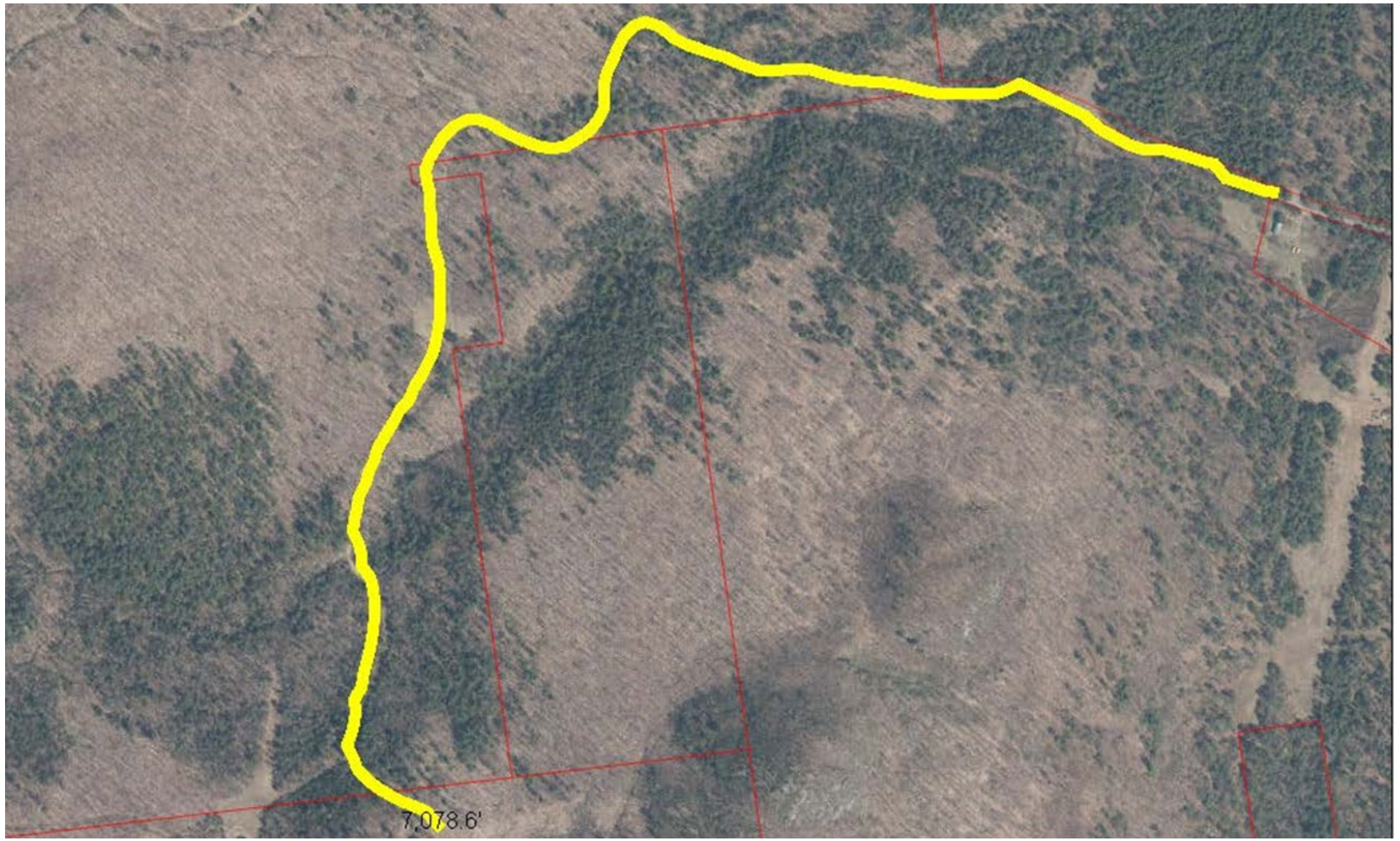
Access road to proposed weapons testing range.

Existing Conditions

View looking back towards Route 9

Existing Conditions

Approximate Course of Private Road



Existing Conditions

Private Access Road

Existing Conditions

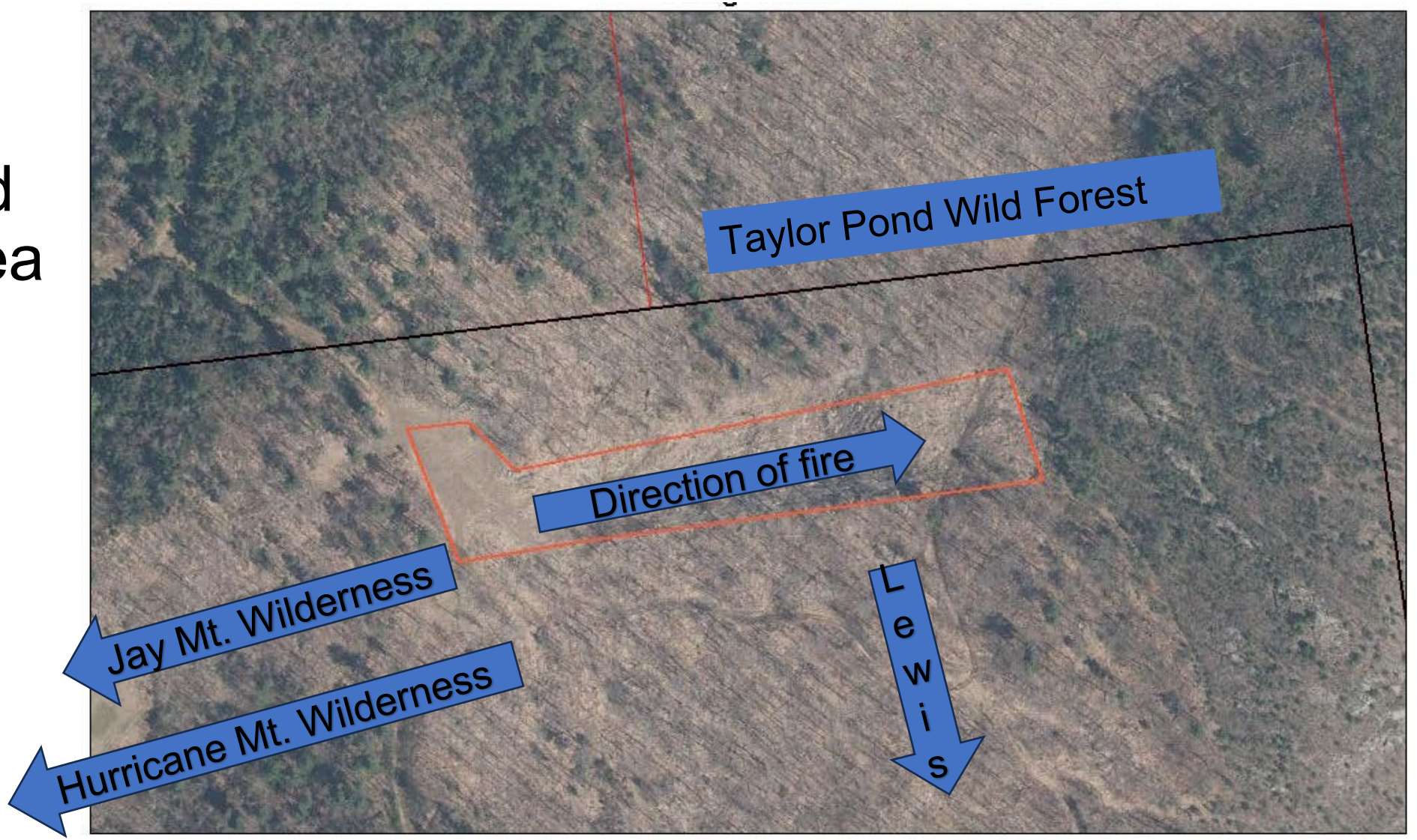
1.3-mile existing private drive

Existing Conditions

Proposed howitzer test range area

Existing Conditions

Proposed testing area



Existing Conditions

Existing Conditions

Proposed Project

Proposed Project

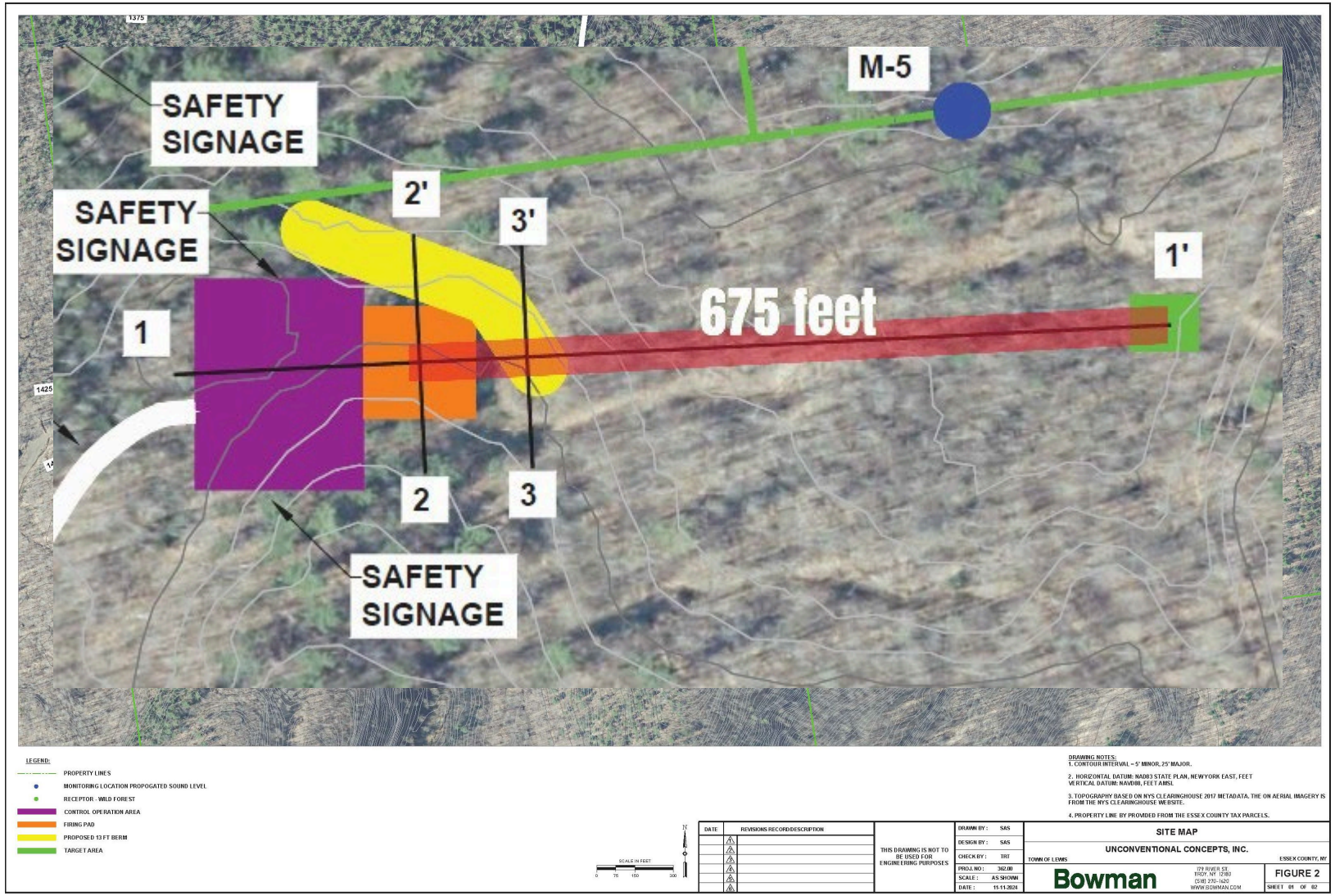
- Applicant proposes to construct and operate a howitzer testing range for testing the internal ballistics of cannon barrels for a 5-year period.
- Applicant proposes to install a 100-foot by 100-foot gravel pad at the western side of the clearing on Parcel 31.000.
- Applicant proposes to place a kinetic energy-absorbing system (soft catch system) at the eastern side of the range to fire the projectiles into. The soft catch system will be an 8-foot by 8-foot by 40-foot long metal shipping container or similar filled with sand and other material to stop the projectiles.

Proposed Project

- Install a 13 foot-tall earthen berm between the firing pad and the soft catch system to help mitigate noise.
- All testing equipment would be portable and placed temporarily on or near the gravel pad as needed per test. Equipment includes the gun system, instrumentation trailers, field repair and maintenance systems, and a mobile power supply.
- All equipment would be stored on Parcel 29 when not in use.

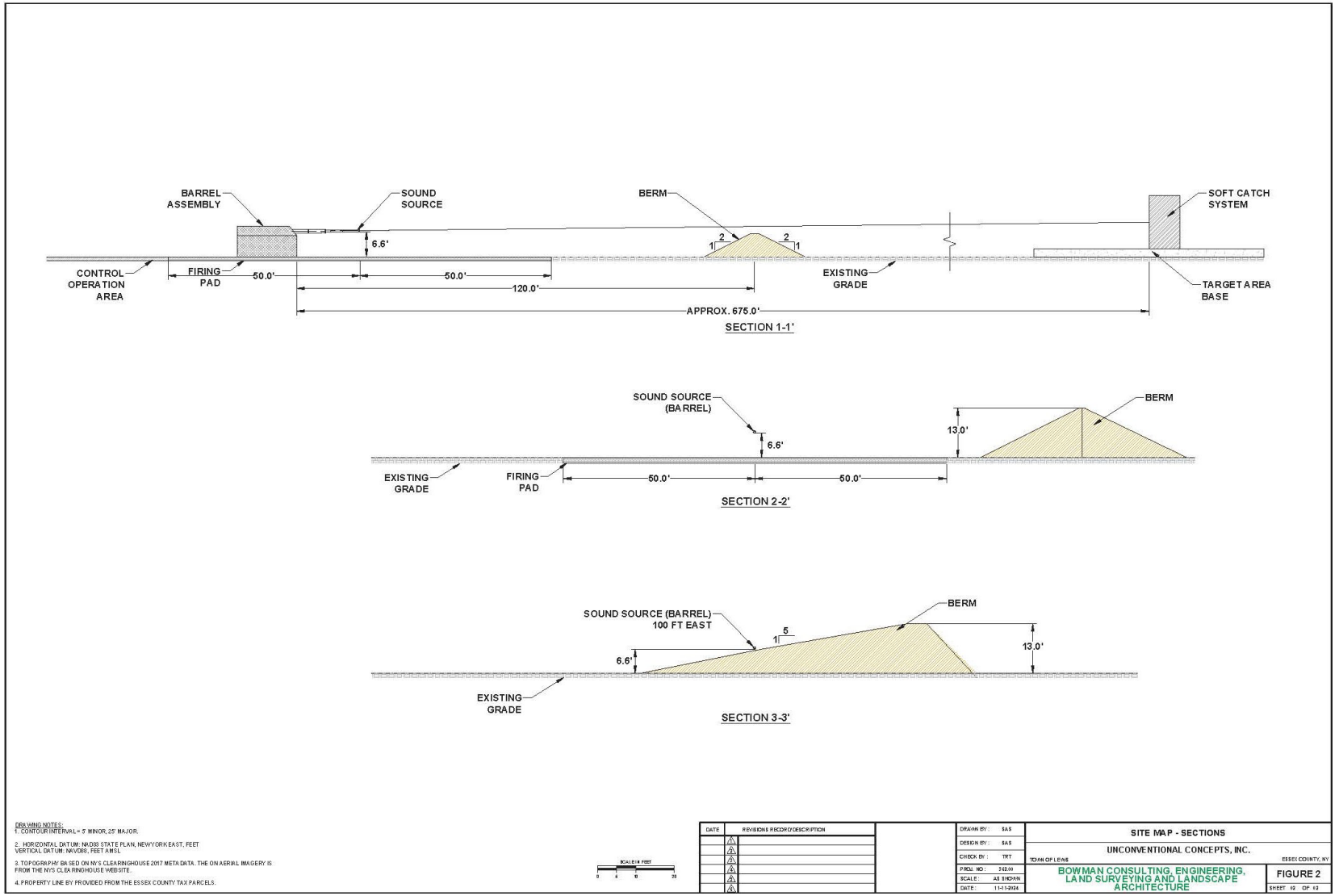
Proposed Project

Site Plan



Proposed Project

Elevation View of Range, Berm, and Soft Catch System



Proposed Project

Proposed Testing Schedule

- Testing proposed to occur year-round.
- Shots fired Monday through Friday, between 10 AM and 4 PM.
- Maximum of two shots per day.
- Shots fired a maximum of 3 consecutive days per week.
- 30 shots per year.
- Testing over a 5-year period.
- Haul truck to transport the barrel assembly to and from the firing pad.

Proposed Project

Range Safety & Security

- Tax Map 38.1-1-31.000 is posted as private property and accessed through a locked gate and private road.
- Two additional concentric rings of signs proposed to surround the range area.
- Range safety officer proposed to monitor the test range by direct line-of sight observation.
- Surveillance and security systems
- Coordination and communication with local law enforcement.
- Notification plan for area residents: Town of Lewis will be notified 7 days prior with testing schedule. All landowners within 2-mile radius notified by mail 7 days prior.

Proposed Project

Range Safety Continued

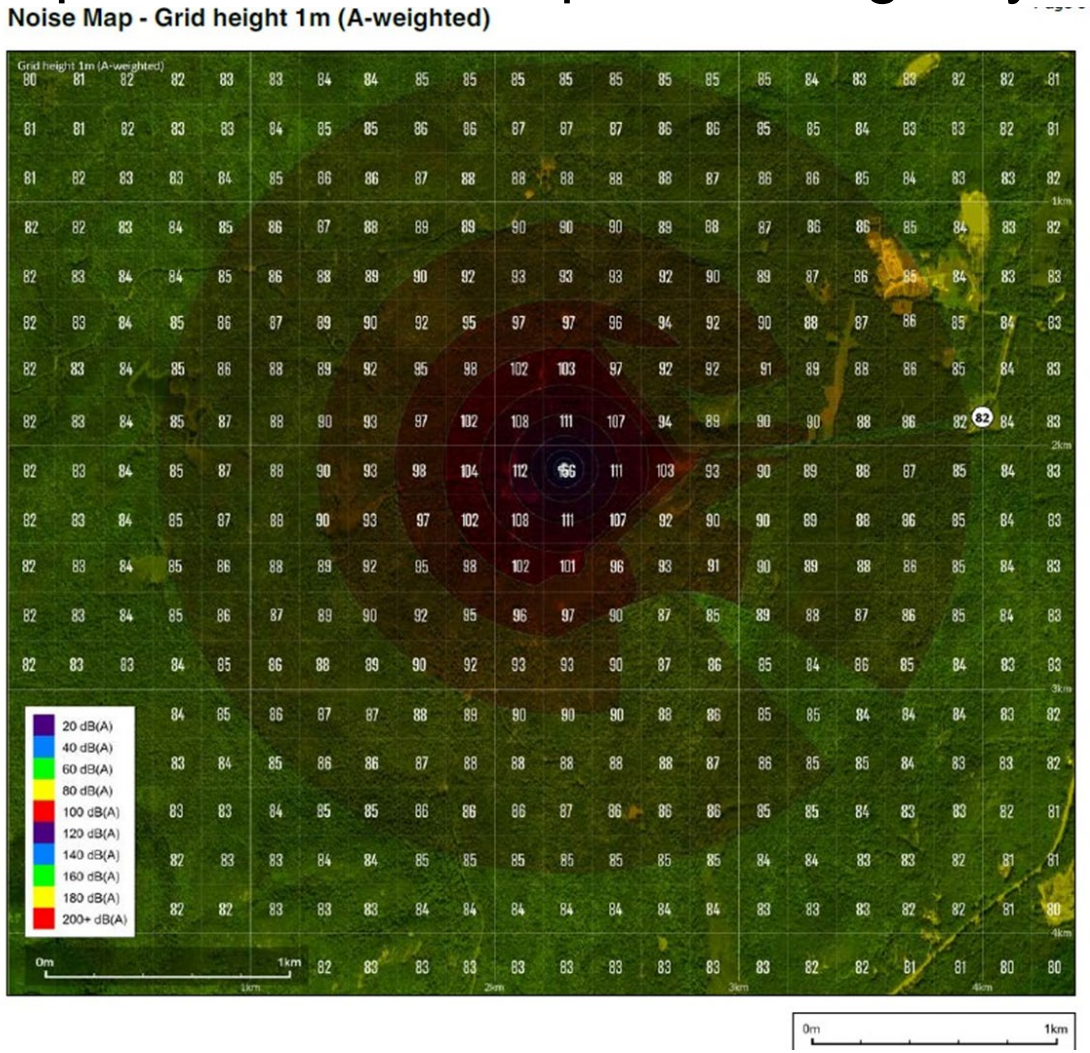
- The applicant states that:
  - The proposed firing range is not a training range; it is a specialized range to support research, development, and experimentation, so US Army Corps of Engineers Range Design Guide regarding human health, safety and the environment does not apply.
  - All operations will be in accordance with either approved and designated Army protocols or based on best engineering and technical judgement.
  - Given the novel nature of the testing and instrumentation used, a boilerplate standard safety plan cannot be developed.

Therefore, questions remain regarding the health and safety impacts relating to the howitzer testing range, and the operation, storage and transport of military equipment outside of a designated military-controlled area.

Assessing Potential Noise Impacts

Assessing Potential Noise Impacts

dBmap.net map submitted in response to Agency second NIPA



Assessing Potential Noise Impacts

SOUND STUDY

UNCONVENTIONAL CONCEPTS, INC.

APA PROJECT #2021-0276

NEW YORK STATE OF OPPORTUNITY. Adirondack Park Agency
RECEIVED
Date: July 10, 2025

Prepared for:
Unconventional Concepts, Inc.
620 Herndon Parkway, Suite 120A
Herndon, VA 20170

Prepared by:

Bowman Consulting, Engineering, Land Surveying and Landscape Architecture

179 River Street
Troy, New York 12180
(518) 270-1620

I, Trevor Thomas, a licensed Professional Engineer in the State of New York, hereby certify that the work represented in the document is accurate, in conformance with applicable codes at the time of submission and has been prepared in conformance with normal and customary standards of practice and with a view to the safeguarding of life, health, property and public welfare.

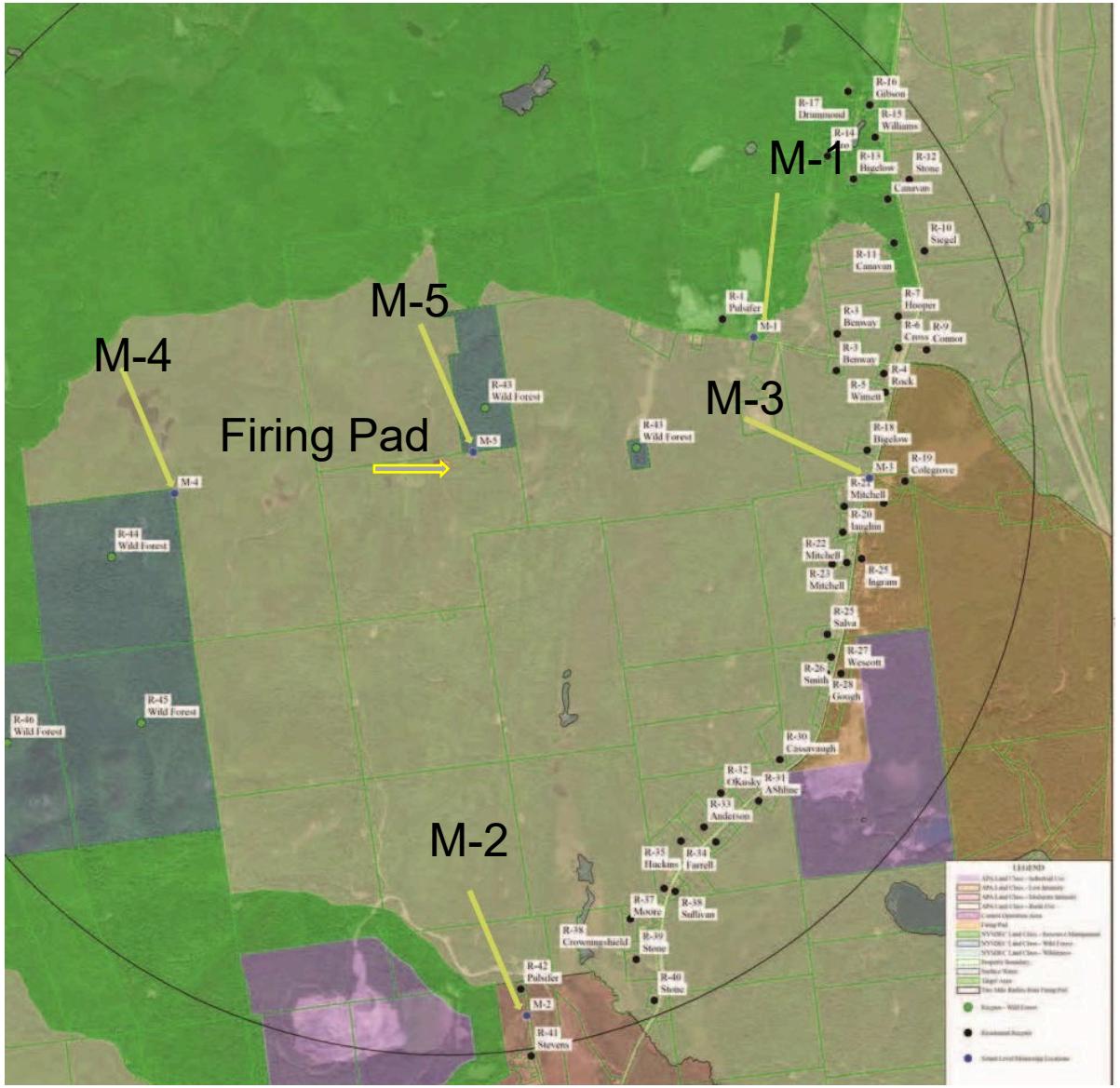
Date:

November 2024

Bowman Consulting
Sound Study

Assessing Potential Noise Impacts

Monitoring Locations



Assessing Potential Noise Impacts

Modeled Impulse Sound Levels Provided by Applicant:

- The applicant submitted a modeled noise analysis for a proposed 155mm howitzer test in response to staff's request
- Modeled sound levels at receptors from impulse events
- The modeled data is derived from a Norwegian artillery study, applied to the project site
- Industry-standard calibration determined a sound power level to be 180.8 dB (or 163.2 dBA) at the barrel

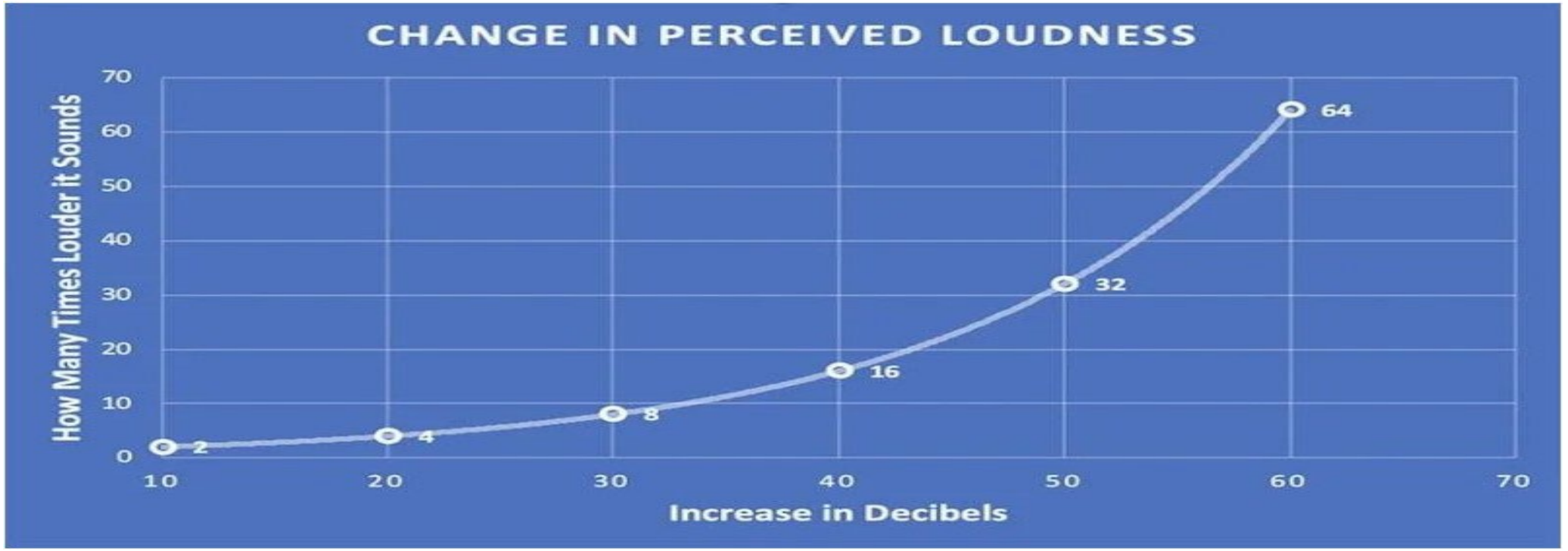
Assessing Potential Noise Impacts

Modeled Impulse Sound Levels Provided by Applicant (continued):

- Applicant indicates that the model incorporates terrain and atmospheric conditions
- No on-site verification possible
- No independent validation was performed.
- Results suggest potential for high impulse levels at receptors

Assessing Potential Noise Impacts

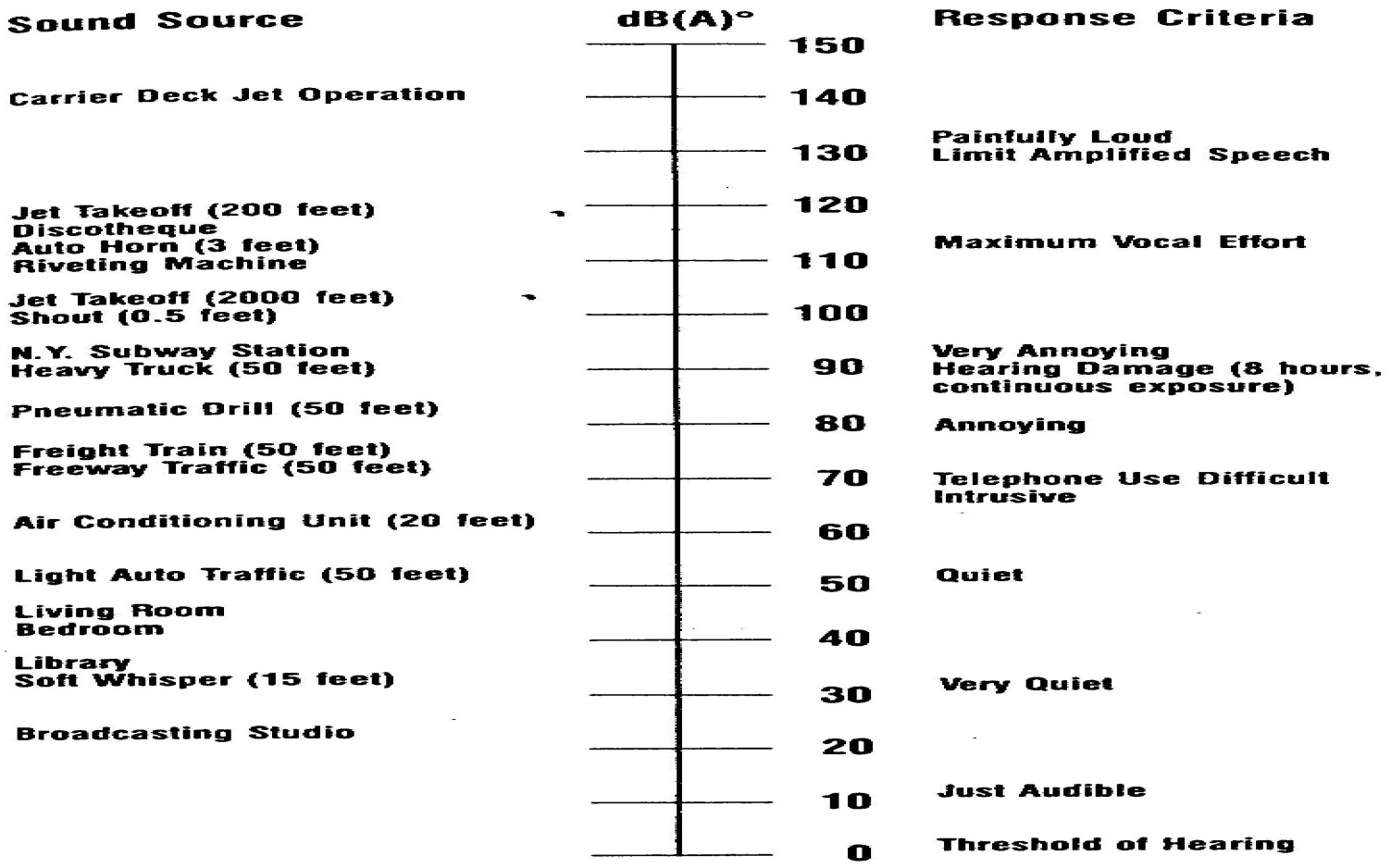
- dB = sound intensity
- dB(A) = how loud perceived by the human ear
- decibels are on a logarithmic scale



Assessing Potential Noise Impacts

163.2 dB(a) at the barrel of a 155mm howitzer

NYSDEC Guidance – Table E



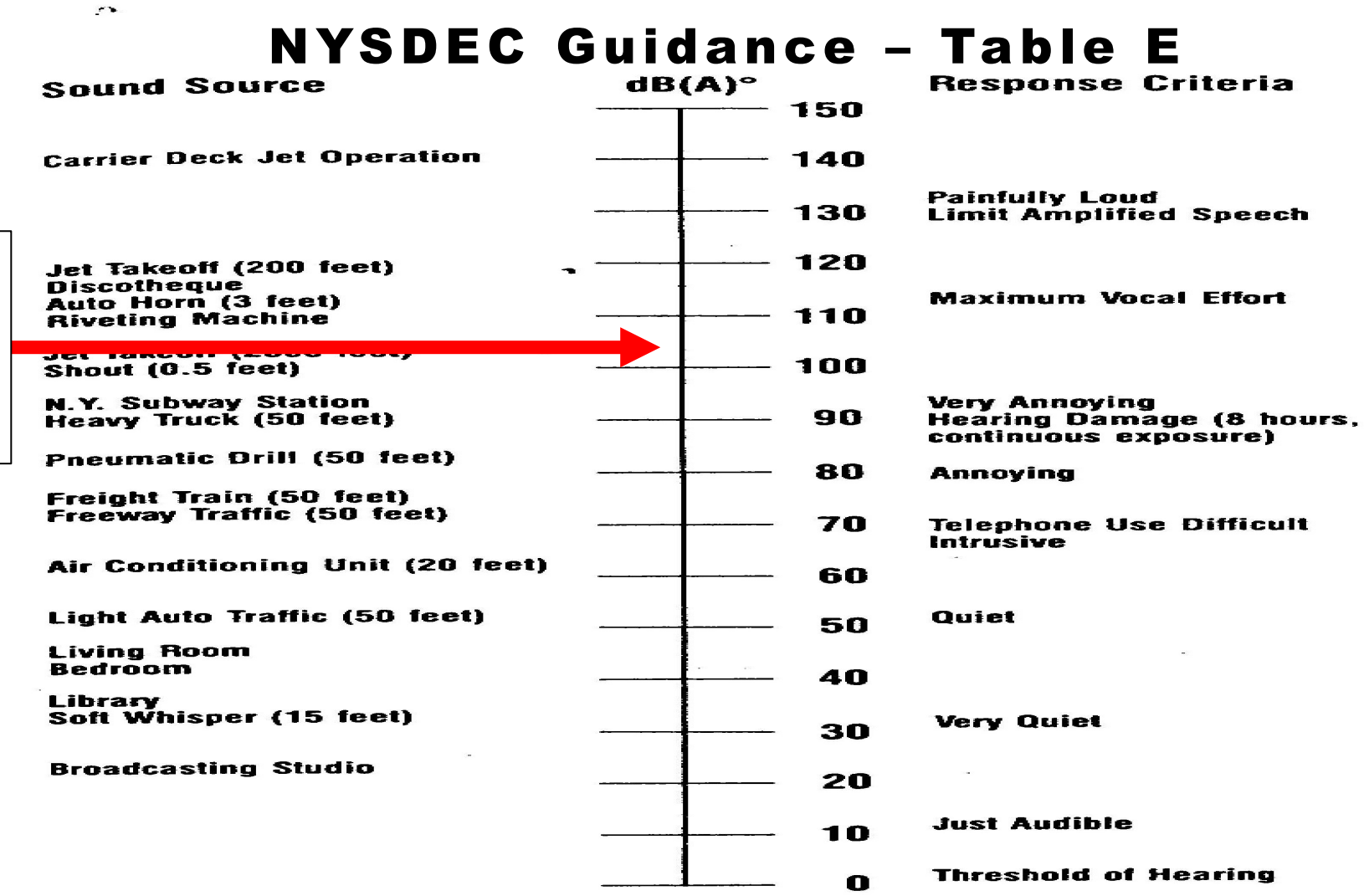
Assessing Potential Noise Impacts

Table 4a: 155 mm Howitzer (Sound Source) Modeled Impulse Sound Levels

Monitoring Location	155 mm Howitzer (Sound Source) Without Sound Mitigation Berm		155 mm Howitzer (Sound Source) With Sound Mitigation Berm	
	Modeled Impulse Sound Level dB	Modeled Impulse Sound Level dB(A)	Modeled Impulse Sound Level dB	Modeled Impulse Sound Level dB(A)
M-1	105	75	99	67
M-2	101	71	101	71
M-3	103	73	103	73
M-4	107	79	107	79
M-5	130	107	124	100
Wild Forest Property Corner (R-46)	132	111	127	102

Assessing Potential Noise Impacts

102 dB(a) at the closest point of State-owned lands.



Assessing Potential Noise Impacts

NYSDEC Guidance – Table D

Table C
PROJECTED NOISE LEVELS

Noise Source	Measurements	1,000 feet	2,000 feet	3,000 feet
Primary and secondary crusher	89 dB(A) at 100 ft	69.0 dB(A)	63.0 dB(A)	59.5 dB(A)
Hitachi 501 shovel loading	92 dB(A) at 50 ft	66.0 dB(A)	60.0 dB(A)	56.5 dB(A)
Euclid R-50 pit truck loaded	90 dB(A) at 50 ft	64.0 dB(A)	58.0 dB(A)	54.4 dB(A)
Caterpillar 988 loader	80 dB(A) at 300 ft	69.5 dB(A)	63.5 dB(A)	60.0 dB(A)

(The Aggregate Handbook, 1991)

Table D
Common Equipment Sound Levels

EQUIPMENT	DECIBEL LEVEL	DISTANCE in feet
Augered earth drill	80	50
Backhoe	83-86	50
Cement mixer	63-71	50
Chain saw cutting trees	75-81	50
Compressor	67	50
Garbage Truck	71-83	50
Jackhammer	82	50
Paving breaker	82	50
Wood Chipper	89	50
Bulldozer	80	50
Grader	85	50
Truck	91	50
Generator	78	50
Rock drill	98	50

(excerpt and derived from Cowan, 1994)

Chainsaw 75-81 dB

Truck 91 dB

Assessing Potential Noise Impacts

NYSDEC Guidance:

“Evaluation of Sound Characteristics

(4) Sharp and Startling Noise - These high frequency and high intensity noises can be extremely annoying. When initially evaluating the effects of noise from an operation, pay particular attention to noises that can be particularly annoying.”

Assessing Potential Noise Impacts

Applicant's Modeled Ambient Sound Increases

Table 4b: Tuesday, December 20, 2022, Howitzer Modeled Sound Level Summary

Monitoring Location	Recorded Ambient dB(A) Leq	155 mm Howitzer (Sound Source)			155 mm Howitzer (Sound Source) With Sound Mitigation Berm		
		Modeled Impulse Sound Level dB(A)	Modeled Ambient dB(A) Leq	Change from Recorded Ambient dB(A)	Modeled Impulse Sound Level dB(A)	Modeled Ambient dB(A) Leq	Change from Recorded Ambient dB(A)
M-1	57.2	75	57.2	0	67	57.2	0
M-2	42.5	71	42.8	0.3	71	42.8	0.3
M-3	59.6	73	59.6	0	73	59.6	0
M-4	39.1	79	41.9	2.8	79	41.9	2.8
M-5	37.2	107	66.7	29.5	100	59.7	22.5

Table 4c: Wednesday, December 21, 2022, Howitzer Modeled Sound Level Summary

Monitoring Location	Recorded Ambient dB(A) Leq	155 mm Howitzer			155 mm Howitzer (Sound Source) With Sound Mitigation Berm		
		Modeled Impulse Sound Level dB(A)	Modeled Ambient dB(A) Leq	Change from Recorded Ambient dB(A)	Modeled Impulse Sound Level dB(A)	Modeled Ambient dB(A) Leq	Change from Recorded Ambient dB(A)
M-1	56.7	75	56.8	0.1	67	56.7	0
M-2	40.8	71	41.2	0.4	71	41.2	0.4
M-3	61.2	73	61.2	0	73	61.2	0
M-4	40.9	79	42.9	2	79	42.9	2
M-5	34.7	107	66.7	32	100	59.7	25

Assessing Potential Noise Impacts

NYSDEC Guidance

Table B

HUMAN REACTION TO INCREASES IN SOUND PRESSURE LEVEL

Increase in Sound Pressure (dB)	Human Reaction
Under 5	Unnoticed to tolerable
5 - 10	Intrusive
10 - 15	Very noticeable
15 - 20	Objectionable
Over 20	Very objectionable to intolerable

(Down and Stocks - 1978)

Assessing Potential Wildlife Impacts

Assessing Potential Wildlife Impacts

Available literature indicates that:

- Military ballistics facilities produce recurrent, high-intensity impulsive sounds (>127 dB)
- These sounds can propagate into surrounding habitats, raising concerns for resident and migratory wildlife
- Scientific evidence shows that exposure to such intensities causes measurable harm to wildlife populations, health and ecosystem function
- Acute impulsive noise (sudden blasts) is especially disruptive compared to chronic continuous noise
- Areas supporting breeding, nesting, or migration are most vulnerable

Assessing Potential Wildlife Impacts

Wildlife – Documented Biological Effects

- **Auditory Damage**
  - Birds show permanent hearing loss near 125 dB impulses (Dooling & Popper 2007)
  - Small mammals experience rapid cochlear damage beyond this level (Hamernik 1987)
  - Even brief exposure causes temporary deafness (~95-120dBA range; Penn State NoiseQuest)
- **Behavioral and Psychological Stress**
  - Military-style impulses trigger panic-flight in ungulates, sharply increasing energy use and risk of injury (Weisenberger 1996)
  - Chronic exposure elevates stress hormones, surpresses immunity, and reduces reproductive success (Kight & Swaddle 2011)
- **Reproduction and Development**
  - Songbirds: smaller clutches, nest abandonment (Halfwerk 2011)
  - Amphibians: larval survival declines above 120 dB (Caorsi 2017)
- **Ecosystem Effects**
  - Persistent impulsive noise can displace seed-dispersing birds, reducing tree recruitment (Francis 2009)
  - Predator detection ranges for carnivores shrink by up to 70% under 120-125 dB (Barber 2010)
  - Effects cascade through food webs and habitat structure, reducing long-term resilience

Assessing Potential Wildlife Impacts

Wildlife – Key Takeaways:

- >125 dB impulse levels exceed known thresholds for harm to terrestrial life
- Acute, unpredictable blasts produce stronger biological disturbance than continuous noise
- Documented impacts span hearing damage, stress physiology, reproductive failure, and ecosystem change

While scientific literature indicates that impulse noise above 125 dB can cause harm, we don't know the effects for this project site. Project-specific data and mitigation evaluation are needed before a finding can be made under the APA Act.

Assessing Potential Pollutant Impacts

Assessing Potential Pollutant Impacts

- Response to 1st Notice of Incomplete Permit Application (received December 21, 2021)
  - "No lead or potential contaminants will be used [in the proposed testing area]"
- Response to 6th Notice of Incomplete Permit Application (received September 11, 2025)
  - "…there are no solvents, lubricants, coatings or other products that are applied to the inside or outside of the howitzer barrel nor used in the testing procedure."
- In a publicly available news article, dated August 19, 2022, the applicant is quoted acknowledging that lubricants (hexavalent chromium) used to coat gun barrels are "dangerous" and they are experimenting with more "environmentally friendly" coatings.

Responses received are conflicting with public statements by the applicant and the record does not provide sufficient detail to evaluate potential pollutants generated from the proposal.

Assessing Compatibility

Assessing Compatability

- APA Act §809(10)(b) requires that the project would be compatible with the character description and purposes, policies and objectives of the land use area wherein it is proposed to be located.
- APA Act § 805(3)(f) describes the character description in Rural Use Areas as being “generally compatible with the protection of the relatively intolerant natural resources and the preservation of open space.”
- The purpose of Rural Use Areas is defined “to provide for and encourage those rural land uses that are consistent and compatible with the relatively low tolerance of the areas’ natural resources and the preservation of the open spaces that are essential and basic to the unique character of the park.”

Because of uncertainties, including the accuracy of the modeled noise projections, potential off-site noise impacts to wildlife and adjoining land uses, limited pollutant information, and health and safety concerns, staff cannot determine whether this project is compatible with the character and purposes of the Rural Use area without more information.

Public Comment & Review by Others

Public Comment & Review by Others

- **Public Notice**
  - **Notice of Application Receipt** sent on 11/24/21, 3/10/22 (Revised with project description and expanded notification area)
  - **Notice of 5th NIPA Appeal Hearing** sent on 5/7/24
  - **Project Application Completion Notice** sent on 10/1/25

- **Comment Letters from Oct. 1 to Oct. 30 during Comment Period**
  - Over 1,400 comment letters received.
  - 19 in favor of the project.
  - 1,385 against the project.

Public Comment & Review by Others

Issues included:

- Noise pollution
- Quality of life
- Impacts to wildlife
- Proposal is not compatible with the values of the Adirondack Park
- Pollution or soil/water contamination
- Safety

Public Comment & Review by Others

Review by others:

- Town of Lewis
  - No land use controls
- NYS Department of Environmental Conservation
  - No review required
- NYS Office of Parks, Recreation & Historic Preservation
  - No adverse impact on historic resources.

Staff Recommendation: Proceed to Hearing

Staff Recommendation

Proceed to an Adjudicatory Hearing

- Based on the current information provided, staff cannot recommend the findings or determinations required for approval pursuant to APA Act § 809
- Under APA law when substantive and substantial issues exist relating to findings or determinations the agency is required to make, the agency may hold an adjudicatory hearing to fully develop the record.
- This process allows the admission and development of testimony, including expert testimony, to create the record the Agency needs to make a final determination

Staff Recommendation: Hearing Criteria

Hearing Criteria (9 NYCRR 580.2)

- The following findings, referenced in the draft project order, address the applicable criteria of 9 NYCRR 580.2, which guide the Agency's determination whether to hold a public hearing.

- Based on this record, several criteria support the need for a hearing:
  - (1) Size and Complexity
  - (2) Public Interest
  - (3) Significant Issues for Approval
  - (4) Potential for Major Modifications or Conditions
  - (5) Assistance from a Hearing
  - (6) Extent of Public Involvement by Other Means

- Each of these are described fully in the proposed project order and summarized on the following slides.

Staff Recommendation: Hearing Criteria

- (1) Size and Complexity
  - Project is unique - Agency has never permitted a howitzer testing range, nor aware of any existing facility of this type in the Park
  - Potential impacts include:
    - Noise impacts
    - Potential discharges, residues, or other pollutants affecting air, land, and water resources
    - Disruption to native and migrating wildlife and their habitats
    - Impacts to adjoining and nearby land uses including: property values, community character and quality of life, health and safety impacts

Staff Recommendation: Hearing Criteria

- (2) Public Interest
  - Over 1,400 public comment letters received; majority raised concerns (19 in favor, remaining object)
  - 15 of the 44 residences located within 2-mile radius submitted comments, as well as other local residents, advocacy organizations, and media
  - Key Topics:
    - Inconsistencies in the application
    - Accuracy and reliability of the sound study
    - Noise impacts on humans and wildlife and land use compatibility
    - Potential pollutants
  - Broad scope of media coverage, engagement from stakeholders, adjoining landowners, and the public.

Staff Recommendation: Hearing Criteria

- (3) Significant Issues for Approval
  - Compatibility with the Adirondack Park Land Use and Development Plan. [APA Act § 809(10)(a)]
  - Compatibility with Rural Use character, purpose and goals described in APA Act § 805(3)(f). [APA Act § 809(10)(b)]
  - Potential undue adverse impacts to natural, scenic, ecological, wildlife, recreational, and open space resources of the Adirondack Park. [APA Act § 809(10)(e)]
  - Key areas of uncertainty:
    - Whether there are impacts to water, land, and air resources
    - Whether there are noise impacts
    - Whether there are impacts to critical resource areas and wildlife
    - Whether there are impacts to adjoining and nearby land uses

Staff Recommendation: Hearing Criteria

- (4) Potential for Major Modifications or Conditions
  - Based on current information available, staff are unaware of any modifications or conditions that would address potential impacts
  - More information could develop during a hearing that could support the approvability or deniability of the project and/or reveal conditions that could be imposed.

Staff Recommendation: Hearing Criteria

- (5) Assistance from a Hearing
  - Proposal raises unique issues and has the potential to affect the Park's resources
  - Obtain testimony and data on:
    - Noise, pollutants, wildlife impacts
    - Compatibility with Rural Use land use area and Adirondack Park Land Use Plan
    - Impacts to adjoining and nearby land uses – property values, community character, quality of life, and health/safety considerations
  - Address and resolve concerns about inconsistencies or the accuracy of the information received

Staff Recommendation: Hearing Criteria

- (6) Extent of Public Involvement by Other Means
  - Agency is unaware of other government approvals or public hearings required to permit the project
  - Hearing may be the only forum for public consideration and review of unique issues
  - A hearing provides key opportunity for transparency and involvement of stakeholders that would be beneficial to the public.

Staff Recommendation: Hearing Issues

- Issues to be considered at hearing.
- Fully outlined in proposed project order and summarized on the following slides

Staff Recommendation: Hearing Issues

- Issue #1 – Compatibility with the Adirondack Park Land Use and Development Plan.
  - Does the howitzer testing range align with the purposes of the Plan – the conservation, protection, preservation, development and use of the unique scenic, wildlife, recreational, open space, ecological, and natural resources?

- Issue #2 – Compatibility with the Rural Use Land Area Classification
  - Is the proposed use consistent with the character and objectives of Rural Use areas?
  - Should the proposal be treated as a commercial use, and if not, is it otherwise compatible?

Staff Recommendation: Hearing Issues

- Issue #3 – Potential for Undue Adverse Impacts on Park Resources
  - Whether the howitzer testing range involves any potential discharges, residues or other pollutants that may affect Park resources
  - Whether the howitzer testing range would have an undue adverse impacts to land resources within the Park
  - Whether the noise estimates for the proposed howitzer testing are accurate and complete, and whether the resulting sound from the howitzer testing range could cause an undue adverse impact to the Park's resources
  - Whether noise mitigation exists that would avoid undue impact to the Park's resources and if so, are they practical to implement

Staff Recommendation: Hearing Issues

- Issue #3 – Potential for Undue Adverse Impacts on Park Resources Continued

  - Whether the proposed howitzer testing range would have an undue adverse impact upon the wildlife resources of the Park
  - Whether the howitzer testing range could have health and safety impacts relating to the operation, storage, and transport of military equipment
  - Whether the howitzer testing range could impact nearby Wilderness and Wild Forest
  - Whether the howitzer testing range would have economic impact on adjoining and nearby land uses, such as property values

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