July 17, 2025

MEMORANDUM FOR THE RECORD

From: Joe Barger
NEPA Coordinator
National Institute of Standards and Technology

Subject: **Finding of No Significant Impact**

Project: Expansion of the Jackson Estuarine Laboratory

Location: University of New Hampshire
Adams Point Road, Durham New Hampshire

The National Environmental Policy Act (NEPA) and associated implementing regulations (40 CFR Parts 1500-1508) require that all major federal actions be reviewed with respect to their environmental consequences. The National Institute of Standards and Technology (NIST) is providing a congressionally directed funding grant for the Expansion of the Jackson Estuarine Laboratory which is owned and operated by the University of New Hampshire (UNH) in Durham, New Hampshire. Consequently, NEPA and the associated implementing regulations apply to this project.

An Environmental Assessment (EA) was prepared by the grant recipient (UNH) for this project and provided for public review. The EA (Environmental Assessment: Jackson Estuarine Laboratory, July 2025, Tighe & Bond) is incorporated by reference. This memorandum summarizes the impacts identified and the mitigation proposed in the EA and documents a finding of no significant environmental impact (FONSI) for the Expansion of the Jackson Estuarine Laboratory, University of New Hampshire, Durham, New Hampshire.

Description of the Action

The Jackson Estuarine Laboratory (JEL) was established at Adams Point, in Durham, New Hampshire in 1970. The land is owned by the New Hampshire Fish and Game Department (NHFG). The JEL is located on a small portion of land leased to the University of New Hampshire by the NHFG. The original lease agreement grants the University rights to

uninterrupted use and occupancy within the agreed tract of land for a period of ninety-nine (99) years from the original June 1967 agreement date (until 2066).

This project includes the expansion and renovation of the JEL to provide:

- High bay space for boat and vehicle repairs, including a hoist system to lift and maneuver the boats and vehicles;
- Support space for dive equipment and tools;
- New showers and changing rooms for students and staff;
- Updated lab space and additional area for collaborative workspace;
- Additional parking and building access.

The expansion of the JEL will include an addition with approximately 5,100 square feet of floor space (3,100 square foot building footprint). The building expansion will be added to the western side of the existing building, The existing paved parking and access area on the south side of the building will be expanded approximately 40-feet in width; and an additional parking area (six spaces) will be added west of the proposed building addition.

The EA identifies the environmental impacts of the proposed action, as well as measures to mitigate impacts.

Impacts and Mitigation

This FONSI is predicated on the implementation of the mitigation measures discussed below:

Stormwater

Construction period activities will result in temporary disturbance of the soil. The project will avoid and minimize erosion and sedimentation within the project area and will prevent migration of soil beyond the perimeter of the project area by utilizing appropriate erosion and sedimentation Best Management Practices (BMPs), including the use of silt fence and/or silt sock, inlet protection barriers, and construction management techniques, such as limiting disturbance areas.

Under contemporary best practices, and as requested by the New Hampshire Fish and Game Department, all manufactured erosion control products proposed will not contain plastic, multifilament or monofilament polypropylene netting or mesh with an opening size greater than 1/8 inches.

The project design will result in a net increase of approximately 8,500 square feet of impervious surfaces on the site. Design features are incorporated to manage stormwater runoff to the extent practicable, to minimize the risk of erosion, sedimentation, and water quality degradation from

runoff of new impervious surfaces. The project includes proposed rain gardens designed to attenuate stormwater runoff from new impervious areas.

Air Quality

Short-term downstream impacts on air quality may occur during the construction period from emissions from fuel-burning engines (e.g., heavy equipment), which could temporarily increase the levels of some criteria pollutants, including Carbon Monoxide. To reduce the emission of criteria pollutants during the construction period, fuel-burning equipment run times would be minimized, engines would be properly maintained, and fugitive dust would be managed in accordance with appropriate construction BMPs.

Passive energy conservation measures that have been incorporated into the building design to minimize air emission resulting from energy use. Measures include continuous roof insulation 33% greater than building code requirement, exterior walls incorporating spray foam continuous insulation for air sealing and increasing the insulation value to 60% greater than building code. The slab-on-grade includes a vapor barrier with full continuous insulation of R-10. Active energy conservation measures include LED lighting, electric heat pump domestic water heater, hot water condensing gas boiler, and roof top energy recovery units.

Wastewater

The proposed building expansion will impact the septic tank located to the west of the existing building. This tank is proposed to be removed, and its associated downstream subsurface disposal field to be abandoned in place. The project proposes to direct septic flows from the building addition to an upgradient subsurface disposal system located west of the project area. The proposed usage is not anticipated to exceed the design capacity of this system. A new septic tank and pump chamber will be installed adjacent to the proposed addition that will receive flows from the building addition to be pumped to the subsurface disposal system.

Wetlands

The proposed project will not directly impact tidal or freshwater wetlands or streams. A small portion of the existing JEL building is located within 50-feet of the Highest Observed Tide Line (HOTL); however, the proposed expansion area extends in a landward direction and does not encroach into the remaining natural shoreline buffer area. The project will be designed to maintain existing resource buffer areas wherever possible, to preserve the self-sustaining ability of the buffer to provide habitat values and protect tidal environments from potential sources of pollution.

Invasive Species

Preventative measures will be taken to limit the potential introduction or spread of invasive or non-native species during the project, such as:

- Limiting disturbance to the work area under construction at that time;
- Avoiding unnecessary disturbance of existing invasive or non-native species;
- Not importing materials from sites where invasive species are known to occur;
- Stabilizing exposed soils to prevent the spread of invasive or non-native species; and
- Cleaning construction equipment prior to mobilization and demobilization.

Flooding

As proposed, the JEL building addition is positioned at a higher elevation than projected flood levels using a climate informed science approach, and the addition and appurtenant parking are located at least 6 feet above the current FEMA Flood Zone AE Base Flood Elevation.

Noise

The proposed project could temporarily alter the noise environment on and around Adams Point. Temporary construction activities could introduce short-term noise disturbances, potentially affecting local human and wildlife residents. Efforts will be made to minimize and mitigate potential noise impacts by limiting construction activities to occur during daylight hours. The contractor will be responsible for utilizing equipment that meets the current noise emissions standards.

Traffic

Construction activities (construction vehicles) associated with the proposed building addition may temporarily increase traffic. This could lead to short-term disruptions along Adams Point Road, including potential delays and limited access during peak construction periods. Recreation and pedestrian passage across Adams Point Road and in the vicinity of recreation trail crossings will require careful signage and protocol to prioritize public safety during construction. Close coordination between UNH and construction contractors will be important to minimize traffic impacts during construction, such as scheduling JEL deliveries and to inform staff and visitors of planned road closures or delays.

Hazardous Materials

A Phase I Environmental Site Assessment identified the following Recognized Environmental Conditions at the JEL site:

- Historic laboratory discharges to one or more septic systems;
- The potential for building potential vapor intrusion conditions (PVIC) associated with historic management of laboratory wastes/chemicals in building areas with poor floor condition and/or floor drains;
- Infrastructure integrity and risk of releases from former septic system plumbing, holding tanks, and septic tanks;
- Interior chemical and waste management procedures;

- Historical leaking underground storage tank (with records of regulatory action completed and file closed).

To better understand the risk for a PVIC at the subject property, additional sampling within the existing building footprint using vapor pins will be conducted prior to construction. Should sampling determine that there is significant risk for vapor intrusion within the existing footprint, an appropriate venting system will be retrofit into the building as part of this project. The new building addition will be proposed to have a vapor barrier and/or passive venting system to mitigate any potential for vapor intrusion into interior spaces.

Construction activities associated with the proposed building addition may impact septic system components (including tanks and piping) within the proposed building addition footprint and project area. Soil and groundwater may also be impacted by the removal or the septic system components. To mitigate the impact of these materials, construction documents will include Contractor requirements for removal, management, collection and disposal in accordance with local, state and federal rules and regulations, as applicable.

Historic and Cultural Resources

An assessment by UNH determined that this project may have an adverse effect on the historic qualities of the JEL. NIST and the New Hampshire Division of Historic Resources (NHDHR) agreed with the determination and requested that a Memorandum of Agreement (MOA) be developed and implemented to help mitigate potential adverse impacts to the significance of architectural resources.

The project was shared with potential consulting parties for input, including local and district historic associations, as well as various tribal nations. No response was received by NIST under a thirty-day response period. An MOA was developed by NIST and NHDHR with participation and input from UNH. The final MOA (attached to the EA) includes the installation of an interpretive exhibit in the interior of the main lobby of the proposed building addition.

Conclusion

NIST hereby adopts the EA prepared by the applicant for the proposed action described above. After reviewing the assessment and the supporting materials provided by the grant recipient, NIST finds that the EA properly documents the project's environmental impact.

In accordance with the National Environmental Policy Act and the Council on Environmental Quality regulations for implementing NEPA (40 CFR Parts 1500 through 1508), NIST has determined that, with the mitigation measures described above, the proposed action will have no

significant adverse impact on the quality of the human environment. As a result of this FONSI, an Environmental Impact Statement will not be prepared.

Approvals:

JOSEPH BARGER Digitally signed by JOSEPH BARGER Date: 2025.07.18 10:32:01 -04'00'

Joe Barger
NIST NEPA Coordinator

7/18/25
Date

ANDREW WRIGHT Digitally signed by ANDREW WRIGHT Date: 2025.07.22 08:49:08 -04'00'

Andrew Wright
NIST Chief Facilities Management Officer

Date