January 28, 2025

MEMORANDUM FOR THE RECORD

From: Joe Barger
NEPA Coordinator

Subject: Categorical Exclusion
Record of Environmental Consideration

Project Title: Forest Biomaterials Innovation Center

Location: University of Maine
5737 Jenness Hall
Orono, ME 04469

The National Environmental Policy Act (NEPA) and associated implementing regulations (40 CFR Parts 1500-1508) require that all major actions by federal agencies be reviewed with respect to the environmental consequences on the human environment. The National Institute of Standards and Technology (NIST) is providing a congressionally directed funding grant for the construction of the Forest Biomaterials Innovation Center at the University of Maine. Consequently, NEPA and the associated implementing regulations apply to this project.

This memorandum provides a Record of Environmental Consideration and summarizes the determination that the Forest Biomaterials Innovation Center at the University of Maine has been found to be categorically excluded from any further environmental review under NEPA.

Description of the Action

The Forest Biomaterials Innovation Center (FBIC) project includes the construction of a 7,200 square foot (approximately 60’ x 120’) stand-alone building including a new sidewalk and loading dock area. The FBIC Building site is adjacent to (less than 20 feet from) the Process Development Center (PDC) and Jenness Hall on the University of Maine Campus in Orono, Maine. The Process Development Center is a 37,000 square foot facility that houses a pilot paper machine, commercial scale mechanical refiners, four 3,500-gallon processing tanks, and a

variety of other equipment. In addition to housing the PDC, Jenness Hall is a 3-story building consisting of classrooms, offices, laboratories, conference rooms and a lobby. Direct access between the new FBIC Building, the Process Development Center and Jenness Hall is required for the planned tasks to be accomplished efficiently.

The new FBIC Building will consist of a large, open space to accommodate new equipment that will allow innovative processing of forest fiber at a demonstration scale. The new FBIC Building will include a temperature and humidity-controlled room and a walk-in cold room for the storage of samples, along with a classroom for hosting students and professionals for training.

The purpose of the new FBIC Building is to enable researchers, entrepreneurs, and industry to demonstrate forest-based innovations and support sustainable products for a national circular economy. Forest biomaterials play an increasingly important role in the replacement of products typically made of plastics derived from fossil fuels. The activities that will be conducted in this building include technology demonstration, product testing, and hands-on training for students and industry.

This project will be accomplished in accordance with all applicable state and federal environmental and safety regulations. All applicable regulatory permitting will be obtained.

Specific Considerations of this Action and any Extraordinary Circumstances

- **Existing Site**

The proposed site for the new FBIC Building is located in the central portion of the University of Maine (UMaine) Campus in a highly developed area. The FBIC Building will be built on an existing grass lot and parking area adjacent to the existing Process Development Center, Jenness Hall and additional parking areas. No demolition will be required for this project.

- **Endangered Species and Critical Habitats**

Endangered and threatened species are known to exist in the area of the UMaine Campus; however, no critical habitats are anticipated on the project site. The site has been previously disturbed by the construction of adjacent buildings and parking areas.

- **Wetlands, Flooding Potential and Resilience**

The project site is located outside of FEMA 100- and 500-year flood hazard areas. The nearest flood zone is 2985 feet west of the project site at an elevation 35 feet below the project site. No future flood hazards, projected due to climate change, are anticipated.

A full delineation of wetlands on the UMaine Campus was completed in 2010. There are no wetlands on the project site. Wetlands have been identified directly east of the project site, but this area will not be impacted by this project.

- **Coastal Zones**

The UMaine Campus is located in a coastal zone and is permitted under the Site Location and Development (SLOD) Law. A SLOD application will be submitted for this project. Review of the SLOD application constitutes the State's consistency review for federally licensed, permitted or funded activities in the Coastal Zone in accordance with the Maine Coastal Program and the Federal Coastal Zone Management Act. This project will meet any findings of the SLOD review.

- **Stormwater**

This project will require a Maine Department of Environmental Protection Construction General Permit and a Stormwater Permit for construction and post-construction stormwater management procedures. Best Management Practices will be implemented to control runoff during construction and to provide quality and quantity treatment of runoff post construction. The project will meet State of Maine stormwater management rules.

- **Building Staffing/Utilities**

Staffing and student populations are not expected to increase significantly due to the operation of the new FBIC Building. Full staffing is estimated at 4 individuals.

Local roadways have capacity for a temporary increase in traffic during construction and for the ongoing traffic expected for staff and students. This project will displace some parking; however, a nearby parking lot was expanded in 2021 which will compensate for the loss of parking.

The following utilities have confirmed that there is capacity and availability to service the proposed FBIC Building:

- Water – Orono-Veazie Water District
- Wastewater – Orono Water Pollution Control Facility
- Electricity – University of Maine/Versant Power
- Natural Gas – Bangor Natural Gas_

- **Air Quality/Greenhouse Gas Emissions**

Greenhouse gas emissions are expected to increase due to the energy requirements of the FBIC Building; however, the increase is not expected to be significant.

Specific measures to be taken to enhance energy conservation and reduce greenhouse gas emissions include:

- LED light fixtures throughout,
- No general air conditioning for the building, and
- Additional energy conservation measures that will be identified in the final design.

- **Hazardous Materials**

A variety of chemicals will be used in the operation of the new FBIC Building. Hazardous materials will be used in accordance with the UMaine Chemical Hygiene Plan and hazardous wastes will be properly disposed through the existing UMaine system.

- **Historic/Cultural Significance**

No impacts are expected to historic properties. The Maine Historic Preservation Officer concurred with this via NIST letter on 1-8-25 (attached).

- **Environmental Justice**

Due to the location of this project on the UMaine Campus, no disproportional adverse human health or environmental impacts to overburdened or underserved communities, including minority, Tribal, or low-income populations are expected.

Effects of the Action

No significant adverse impacts on the environment are expected from this action.

Categorical Exclusion

The activities associated with this project fall within the criteria of the following Department of Commerce Categorical Exclusion (CATEX):

DOC A–2, New construction upon or improvement of land where all of the following conditions are met:

(a) The site is in a developed area and/or a previously disturbed site,

(b) The structure and proposed use are compatible with applicable Federal, Tribal, State, and local planning and zoning standards and consistent with Federally approved State coastal management programs,

(c) The proposed use will not substantially increase the number of motor vehicles at the facility or in the area,

(d) The site and scale of construction or improvement are consistent with those of existing, adjacent, or nearby buildings, and

(e) The construction or improvement will not result in uses that exceed existing support infrastructure capacities (roads, sewer, water, parking, *etc.*). This CE does not apply

where the project must be submitted to the National Capital Planning Commission (NCPC) for review and NCPC determines that it does not have an applicable Categorical Exclusion. DOC is not a major land managing agency in the Federal government. Department activities involving new construction or improvements of land typically involve single buildings and supporting infrastructure in a single locality. Any potential for environmental impacts would be of a small scale and confined to more localized impacts.

The proposed project meets the criteria of CATEX A-2 as follows:

(a) The proposed site has been disturbed by previous nearby construction of buildings.

(b) Located on the campus of the University of Maine, the project is compatible with applicable Federal, Tribal, State, and local planning and zoning standards.

(c) Increases in the number of motor vehicles at the facility or in the area are not expected to be significant.

(d) The proposed new building will not will not result in uses that exceed existing infrastructure capacities. The project does not require review by the NCPC.

The proposed activity: Forest Biomaterials Innovation Center at the University of Maine is categorically excluded from the need for further environmental review under NEPA. Any changes to the above project will require additional NEPA review.

JOSEPH BARGER Digitally signed by JOSEPH BARGER Date: 2025.01.28 08:55:55 -05'00'

1/28/2025

Joe Barger
NIST NEPA Coordinator

Date

ROBERT VAUGHN Digitally signed by ROBERT VAUGHN Date: 2025.01.28 10:46:21 -05'00'

Robert C. Vaughn
NIST Chief Facilities Management Officer

Date

Attachment A
State Historic Preservation Officer Correspondence

NIST OFFICE OF FACILITIES & PROPERTY MANAGEMENT

20 December 2024

Mr. Kirk F. Mohney,
State Historic Preservation Officer
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, Maine, 04333-0065

Re: Forest Biomaterials Innovation Center
at the University of Maine, Orono, ME

Dear Mr. Mohney:

The National Institute of Standards and Technology (NIST), an agency of the U.S. Department of Commerce in accordance with the National Historic Preservation Act of 1966 (as Amended) and its implementing regulations 36 CFR 800 is notifying you that it is administering a grant for the design and construction of the above noted project in accordance with the terms of the Consolidated Appropriations Act of 2024 [Public Law 118-142]. Thus, the Forest Biomaterials Innovation Center (the Center) constitutes an Undertaking as defined by 36 CFR 800.16(y). The proposed 7,200 square foot Center is to be located adjacent to the existing Process Development Center, a wing that was added to Jenness Hall in 1989. Furthermore, Jenness Hall, the PDC Wing and the proposed Center are located well outside the University of Maine's NRHP historic district, to the northwest of the Flagstaff and Long Road intersection (see attached Campus Map). Therefore, because the proposed new building is situated in a part of the campus that is outside the viewshed of the NRHP historic district, NIST has therefore determined that the Undertaking does not have the potential to cause effects on historic properties as defined within by 36 CFR 800.3 (a) (1).

The attached application materials from the University fully describe the nature of the project with narrative as well as graphic materials including a map of the NRHP historic district in relation to Jenness Hall. With no changes to the character defining features nor to the setting, feeling, association and placement of the campus' listed historic properties, NIST has determined that the Undertaking does not have the potential to cause effects to historic properties and seeks your concurrence on this finding. To do so, kindly sign below and return a copy of this note for my records.

In advance, thank you.

Phillip W. Neuberg

Phillip W. Neuberg, FAIA
Federal Historic Preservation Officer

Concurrence:

Kirk F. Mohney 1/8/25

Kirk Mohney, SHPO Date

Attachments: 1) Project Narrative
2) University of Maine, Orono Historic District Campus Map