US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: March 4, 2021
Comment Deadline: April 2, 2021
Corps Action ID Number: SAW-2020-00632

The Wilmington District, Corps of Engineers (Corps) received an application from Mulberry Farms – Madison LLC (applicant) seeking Department of the Army authorization to impact 2,243 linear feet of streams (0.1622 acres) and 0.108 acres of wetlands associated with the development of The School of Wholeness and Enlightenment (SOWE), a proposed residential education and training center near the Town of Marshall in Madison County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at:
https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/

Applicant:
Mulberry Farm- Madison LLC
Mr. Richard Kelly
1126 Upper Thomas Branch Road
Marshall, NC 28753

AGENT (if applicable):
ClearWater Environmental Consultants
Mr. Clement Riddle
145 7th Avenue West, Suite B
Hendersonville, NC 28792

Authority

The Corps evaluates this application and decides whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of the following Statutory Authorities:

☒ Section 404 of the Clean Water Act (33 U.S.C. 1344)

☐ Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

☐ Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

Location

Location Description: From the Town of Marshall, NC, travel west on US-25/70 16 miles. Turn Right on Upper Thomas Branch Road and continue to the project site at the end of the State Road.

Project Area (acres): approximately 448
Nearest Town: Marshall
Nearest Waterway: Thomas Branch & Hopewell Branch
River Basin: French Broad
Latitude and Longitude: 35.865203 N; -82.725897 W

Existing Site Conditions

The project area land cover consists of forest, agricultural pasture, and open water. A few residential lots and farm infrastructure buildings exist on the site. The surrounding area is primarily used for forest, agricultural, and residential purposes.

Applicant's Stated Purpose

The development (SOWE) will be a residential education and training center. Ecosystem enhancements support the overall mission of SOWE, which is to provide a supportive environment where individuals can work on self-improvement based on an enlightened and harmonious relationship with the Earth. SOWE is including solar photovoltaic, geothermal, rainwater harvesting, and innovative stormwater management approaches to the infrastructure as examples of sustainable and regenerative technologies.

Project Description

The site will be utilized for the School of Wholeness and Enlightenment (SOWE) which will include 76 cabins, two school buildings, a horticultural building, an event center, a dining hall, a gym, a wholeness center, four staff houses, and an administrative building. The proposed road network will require minimal crossing impacts to streams and wetlands. Several existing culverts are proposed for removal and restoration. Beaver Dam Analog (BDA) structures will be constructed to enhance aquatic habitat on site. An overall site impact plan is shown in Figure 5a. A grading and impact plans for the BDAs is shown in Figures 5b and 5c, with BDA structure and stream modification details in Figures 5d and 5e.

Typical earthmoving equipment will be used to construct stream crossings and BDA structures.

Streams proposed for ecosystem enhancement utilizing BDA features have degraded channel and riparian functions. The quality of these aquatic resources is diminished due to factors such as homogenous stream bed structures, weakly established, invasive, or absent woody plant buffer, and entrenched channels with underutilized capacity for

floodwater retention and attenuation. We expect the introduction of these BDA features to reduce slope gradient, thereby reducing sediment transport capacity, diversifying bed sediments, and increasing ground water recharge. Enhanced flood storage capacity will be achieved by creating a highly accessible and topographically diverse floodplain, resulting in flattening and elongation of storm hydrographs. Through these fluvial processes, BDA features will create a heterogenous stream-wetland complex. Fluctuating surface water and groundwater levels within wetland complexes will promote nutrient transformation and assimilation, consequently improving freshwater habitat conditions in the project area.

The hydraulic and geomorphic effects after BDA creation should proceed as follows:

1. Pond formation: the creeks are changed into a succession of channels, beaver ponds, vernal pools, and wetlands. The pool elevations are expected to fluctuate, controlling variables being local topography, seepage, rainfall, and evapotranspiration.
2. Wetland formation: due to the increased water level, wetlands will form around the BDA ponds, and on any hummocks that protrude out of the new water surface elevations.
3. Ground water level: the rise in water surface elevation caused by the BDA will generate a local increase of the ground water level. The increased wetted area leads to an increase in ground water recharge and dampening of seasonal flow variations.

The impact of beaver dam construction has been widely considered in the literature, providing evidence that the introduction of BDA stream-wetland heterogeneity creates the following effects:

1. Retention: beaver ponds and wetlands retain water during rainfall events and can therefore reduce the peak flow during flood events.
2. Drought Resilience: In times of drought, it is not uncommon for headwater streams to run dry. Beaver streams have been shown to keep small headwater streams flowing that would otherwise run dry. This is attributed to the increased storage of water as groundwater. The last period of “exceptional drought” in Madison County was in 2007-2009, and prior to that, in 2001 and prior to that in 1985-1989.
3. Stream Power: stream energy is dissipated at the site of the beaver dam; the seepage and overflow of water through cracks in the dam structure enhance the development of a more complex local channel network and changes in main channel morphometry, most notable is the longitudinal profile, but plan-form evolution is also expected to naturally evolve.
4. Deposition: the processes of silting and sediment storage dominate in the area of impoundment, attenuating the sediment yield from the catchment.
5. Sediment Sorting: the sorting of fluvial sediments changes; coarser sediments accumulate in pond heads, while finer sediments accumulate in the main pond body.

6. Carbon Storage: increase in the storage and decomposition of organic matter in BDA ponds.
7. Aquatic Ecosystem: this resilient fluvial system created by the BDAs, combined with riparian vegetation and the availability of organic matter, will allow for an expanded and diverse population of the functional feeding groups (scrapers, shredders, gatherers, filterers, etc.).

Proposed Wetland Impacts Inventory

Wetland impact number Permanent (P) Temporary (T)	Type of impact	Type of wetland	Forested	Type of jurisdiction Corps (404,10) or DWQ (401, other)	Area of impact (acres)
W1 - P	Fill	Bottomland Hardwood Forest	No	Corps	0.003
W2 – P	Fill	Bottomland Hardwood Forest	No	Corps	0.02
W3 - P	Fill	Bottomland Hardwood Forest	No	Corps	0.002
W4 - P	Fill	Bottomland Hardwood Forest	No	Corps	0.004
W5 - P	Fill BDA HB4	Bottomland Hardwood Forest	Yes	Corps	0.011
W6 - P	*Other BDA HB4	Bottomland Hardwood Forest	Yes	Corps	0.018
W7 - P	Fill BDA TB4a	Bottomland Hardwood Forest	No	Corps	0.002
W8 - P	*Other BDA TB4A	Bottomland Hardwood Forest	No	Corps	0.013
W9 - P	*Other BDA TB6	Bottomland Hardwood Forest	No	Corps	0.035
Notes: Impact quantities designated as “other” represent the maximum possible extent of inundation from the BDA structure. Proposed typical impact conditions will consist of a dynamic stream/wetland complex occurring on a gradient from open water to channel flow, within the area indicated.				Total	0.108

Proposed Stream Impacts Inventory

Stream impact number Permanent (P) or Temporary (T)	Type of impact	Stream name	Perennial (PER) or intermittent (INT)?	Type of Jurisdiction	Average stream width (feet)	Impact length (linear feet)	Impact area (acres)
S1 – P	Culvert	Thomas Branch	PER	Corps	6	30	0.004
S2 - P	Culvert	UT Hopewell Branch	PER	Corps	4	10	0.001
S3 - T	Culvert Removal	UT to Thomas Branch	PER	Corps	2	74	0.003
S4 - T	Culvert Removal	UT to Thomas Branch	PER	Corps	2	27	0.001
S5 - T	Culvert Removal	UT to Thomas Branch	PER	Corps	2	29	0.001
S6 - T	Culvert Removal	UT to Thomas Branch	PER	Corps	2	118	0.005
S7 - T	Culvert Removal	UT to Thomas Branch	PER	Corps	2	20	0.001
S8 - P	Fill (BDA HB4)	Hopewell Branch	PER	Corps	3	19	0.001
S9 – P	*Other (BDA HB4)	Hopewell Branch	PER	Corps	3	158	0.011
S10 – P	Fill (BDA TB1)	Thomas Branch	PER	Corps	3	23	0.002
S11 – P	*Other (BDA TB1)	Thomas Branch	PER	Corps	3	227	0.016
S12 – P	Fill (BDA TB2)	Thomas Branch	PER	Corps	3	27	0.002
S13 – P	*Other (BDA TB2)	Thomas Branch	PER	Corps	3	69	0.0048
S14 – P	*Other (BDA TB2)	UT Thomas Branch	PER	Corps	3	90	0.0062
S15- P	Fill (BDA TB3A)	Thomas Branch	PER	Corps	3	30	0.002
S16 – P	*Other (BDA TB3A)	Thomas Branch	PER	Corps	3	76	0.005
S17 - P	Fill (BDA TB3B)	UT Thomas Branch	PER	Corps	3	23	0.002

Stream impact number Permanent (P) or Temporary (T)	Type of impact	Stream name	Perennial (PER) or intermittent (INT)?	Type of jurisdiction	Average stream width (feet)	Impact length (linear feet)	Impact area (acres)
S18 – P	*Other (BDA TB3B)	UT Thomas Branch	PER	Corps	3	109	0.008
S19 – P	Fill (BDA TB4A)	Thomas Branch	PER	Corps	3	30	0.002
S20 - P	*Other (BDA TB 4A)	Thomas Branch	PER	Corps	3	141	0.0097
S21 - P	*Other (BDA TB4A)	UT Thomas Branch	PER	Corps	3	204	0.014
S22 – P	Fill (BDA TB4B)	UT Thomas Branch	PER	Corps	3	16	0.001
S23 – P	*Other (BDA TB4B	UT Thomas Branch	PER	Corps	3	96	0.007
S24 – P	Fill (BDA TB5A)	Thomas Branch	PER	Corps	3	16	0.001
S25 – P	*Other (BDA TB5A)	Thomas Branch	PER	Corps	3	74	0.005
S26 – P	Fill (BDA TB5B)	UT Thomas Branch	PER	Corps	3	16	0.001
S27- P	*Other (BDA TB5B)	UT Thomas Branch	PER	Corps	3	59	0.004
S28 - P	Fill (BDA TB6)	UT Thomas Branch	PER	Corps	3	23	0.002
S29 - P	*Other (BDA TB6)	UT Thomas Branch	PER	Corps	3	169	0.012
S30 - P	Stream Enhancement	Thomas Branch	PER	Corps	5	240	0.0275
Notes: Impact quantities designated as “other” represent the maximum possible extent of inundation from the BDA structure. Proposed typical impact conditions will consist of a dynamic stream/wetland complex occurring on a gradient from open water to channel flow, within the area indicated.					Total	2,243	0.1622

Avoidance and Minimization

The applicant provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment: The project design avoids 95% of wetlands and 89% of streams on site. Bridge crossings are proposed for the majority of stream crossings to minimize impacts to streams. The placement of buildings and roads intentionally avoid impacts to wetlands and streams where possible. The majority of proposed impacts consist of proposed ecosystem enhancement.

Compensatory Mitigation

The applicant offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment: The applicant did not propose any compensatory mitigation to offset impacts.

Essential Fish Habitat

The Corps' determination is that the proposed project would not affect EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

☒ This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would not impact marine substrate, estuarine substrate, water columns, emergent wetlands, submerged aquatic vegetation, artificial reefs, and hardbottoms (see project description) utilized by various life stages of the following species: coastal migratory pelagics, corals, golden crab, shrimp, snapper grouper, spiny lobster, and Atlantic highly migratory species. Our initial determination is that the proposed action individual or cumulative adverse impact on EFH or fisheries managed by Fishery Management Councils and the National Marine Fisheries Service (NMFS). Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

☐ The Corps will consult under the Magnuson-Stevens Act and will not make a permit decision until the consultation process is complete.

☐ The Corps has initiated consultation the Magnuson-Stevens Act and will not make a permit decision until the consultation process is complete.

Cultural Resources

Pursuant to Section 106 of the National Historic Preservation Act of 1966, Appendix C of 33 CFR Part 325, and the 2005 Revised Interim Guidance for Implementing Appendix C, the District Engineer consulted district files and records and the latest published version of the National Register of Historic Places and initially determines that:

☐ Should historic properties, or properties eligible for inclusion in the National Register, be present within the Corps' permit area; the proposed activity requiring the DA permit (the undertaking) is a type of activity that will have no potential to cause an effect to an historic properties.

☒ No historic properties, nor properties eligible for inclusion in the National Register, are present within the Corps' permit area; therefore, there will be no historic properties affected. The Corps subsequently requests concurrence from the SHPO (or THPO).

☐ Properties ineligible for inclusion in the National Register are present within the Corps' permit area; there will be no historic properties affected by the proposed work. The Corps subsequently requests concurrence from the SHPO (or THPO).

☐ Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; however, the undertaking will have no adverse effect on these historic properties. The Corps subsequently requests concurrence from the SHPO (or THPO).

☐ Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; moreover, the undertaking may have an adverse effect on these historic properties. The Corps subsequently initiates consultation with the SHPO (or THPO).

☐ The proposed work takes place in an area known to have the potential for the presence of prehistoric and historic cultural resources; however, the area has not been formally surveyed for the presence of cultural resources. No sites eligible for inclusion in the National Register of Historic Places are known to be present in the vicinity of the proposed work. Additional work may be necessary to identify and assess any historic or prehistoric resources that may be present.

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-indentified permit area.

Endangered Species

Pursuant to the Endangered Species Act of 1973, the Corps reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information:

☐ The Corps determines that the proposed project would not affect federally listed endangered or threatened species or their formally designated critical habitat.

☐ The Corps determines that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat.

☐ By copy of this public notice, the Corps initiates consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.

☐ The Corps will consult under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.

☐ The Corps has initiated consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.

☐ The Corps determines that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat. Consultation has been completed for this type of activity and the effects of the proposed activity have been evaluated and/or authorized by the National Marine Fisheries Service (NMFS) in the South Atlantic Regional Biological Opinion or its associated documents, including 7(a)(2) & 7(d) analyses and Critical Habitat assessments. A copy of this public notice will be sent to the NMFS.

☒ The Corps is not aware of the presence of species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the project area. The Corps will make a final determination on the effects of the proposed project upon additional review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

Other Required Authorizations

The Corps forwards this notice and all applicable application materials to the appropriate State agencies for review.

North Carolina Division of Water Resources (NCDWR):

☐ The applicant did not provide or satisfy all 9 elements required for a complete 401 certification request. Therefore, the 401 Certification process has not started. The Corps will generally not make a final permit decision until the NCDWR issues, denies, or waives the state Certification as required by Section 401 of the Clean Water Act (PL 92-500).

☒ The Corps will generally not make a final permit decision until the NCDWR issues, denies, or waives the state Certification as required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice, combined with the appropriate application fee, at the NCDWR Central Office in

Raleigh constitutes initial receipt of an application for a 401 Certification. Unless NCDWR is granted a time review extension, a waiver will be deemed to occur if the NCDWR fails to act on this request for certification within sixty days of the date of this public notice. Additional information regarding the 401 Certification may be reviewed at the NCDWR Central Office, 401 and Buffer Permitting Unit, 512 North Salisbury Street, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for a 401 Certification should do so, in writing, by July 1, 2021 to:

NCDWR Central Office
Attention: Mr. Paul Wojowski, 401 and Buffer Permitting Unit
(USPS mailing address): 1617 Mail Service Center, Raleigh, NC 27699-1617

Or,

(physical address): 512 North Salisbury Street, Raleigh, North Carolina 27604

North Carolina Division of Coastal Management (NCDCM):

☐ The application did not include a certification that the proposed work complies with and would be conducted in a manner that is consistent with the approved North Carolina Coastal Zone Management Program. Pursuant to 33 CFR 325.2(b)(2) the Corps cannot issue a Department of Army (DA) permit for the proposed work until the applicant submits such a certification to the Corps and the NCDCM, and the NCDCM notifies the Corps that it concurs with the applicant's consistency certification. As the application did not include the consistency certification, the Corps will request, upon receipt,, concurrence or objection from the NCDCM.

☒ Based upon all available information, the Corps determines that this application for a Department of Army (DA) permit does not involve an activity which would affect the coastal zone, which is defined by the Coastal Zone Management (CZM) Act (16 U.S.C. § 1453).

Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation,

water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidated State Viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing will be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

The Corps of Engineers, Wilmington District will receive written comments pertinent to the proposed work, as outlined above, until 5pm, April 2, 2021. Comments should be submitted to Ms. Brandee Boggs, Asheville Regulatory Field Office, 151 Patton Avenue, Room 208, Asheville, North Carolina 28801-5006, at (828) 271-7980, extension 4224.