



March 15, 2021

Pembroke Zoning Board of Appeals
100 Center St
Pembroke MA 02359

Attn: Sabrina Chilcott, Assistant Town Manager
schilcott@townofpembrokemass.org

RE: River Marsh Village – Water Street, Pembroke

Dear Members of the Zoning Board of Appeals:

The North and South Rivers Watershed Association (NSRWA) is a nonprofit grassroots environmental organization that has been protecting the North and South Rivers and their watershed since 1970. With over 1,700 members we are a strong voice for the protection of these irreplaceable natural and recreational resources on the South Shore and we strongly object to the proposed 56-unit River Marsh Village development at 274 Water Street in Pembroke.

We realize that affordable housing is a priority for our Commonwealth, but this kind of intensive dense development should not be placed on lands that are environmentally sensitive and unique.

This parcel is of regional importance because of its proximity to the North River which has exceptional recreational values and special designation as an environmentally sensitive area. More specifically:

The North River is the Only State Scenic Protected River

In 1978 the North River Protective Order was passed making the North River the only Scenic Protected River in the state of Massachusetts. The aim of the state [Protective Order](#) is to protect public and private property, wildlife, fresh and saltwater fisheries, and irreplaceable wild, scenic and recreational river resources. The Order protects the North River, as well as parts of associated tributaries in the towns of Scituate, Marshfield, Pembroke, Norwell, Hanover, and Hanson within 300 feet of the banks of the North River and is the only one of its kind. A portion of the proposed 68-unit development lies within the Protected Corridor and all of it directly abuts the Protected Corridor.

The North River is a Federal National Natural Landmark

In 1977 the North and South Rivers were designated as a National Natural Landmark by the Department of the Interior, as “possessing national significance in illustrating the natural character of the United States.” The National Natural Landmarks Program recognizes and encourages the conservation of sites that contain outstanding biological and geological resources. Sites are designated by the Secretary of the Interior for their condition, illustrative character, rarity, diversity, and value to science and education. The National Park Service administers the program and works cooperatively

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with landowners, managers and partners to promote conservation and appreciation of our nation's natural heritage.

Significant State and Local Investments Have Been Made to Save Land Along the North River

The North and South Rivers Watershed Association, in partnership with the 5 towns that abut the river, local land trusts and with state funding support, have worked to protect significant tracts of land along the North River either through purchase of open space or through conservation restrictions on private lands. In the past decade alone over 250 acres of lands abutting the North River have been saved, much of it up and downstream of this proposed development, to create a permanent regional greenway along the North River for the public to enjoy and to protect its unique natural and historic resources. Millions of public tax dollars have been invested to acquire as much property to protect the North River as possible to prevent the kind of ecological damage that this kind of intense development could have.

Stormwater and Wastewater Will Directly Impact Wetlands and the North River

The significant stormwater and wastewater generated from this proposed development will impact the health of the North River and potentially damage its water quality. The proposal, as conceptualized, indicates no effort to decrease the footprint of the development in order to minimize impacts to the sensitive wetland resources on the site. In fact, it maximizes pavement and buildings on every piece of available upland on the site and fills in wetlands.

Both the wastewater and stormwater treatment systems directly abut sensitive wetland areas adjacent to the North River and FEMA mapped AE Flood Zones. The wastewater treatment system that will treat approximately 15,000 gallons of wastewater per day, requires crossing and filling a wetland and a USGS delineated stream that drains directly into the North River. Sixty-two percent of the site is wetland that directly drains into the North River. It is likely, given the wetlands on site, that the groundwater elevations are high. This will make it potentially challenging to safely infiltrate the high volumes of wastewater and stormwater that this dense development will create without contaminating the water that drains into the North River. The development is also located in the headwaters of the North River, so contributions from the site could impact the entire North River corridor.

Proposed Stormwater Management System Comments

The following outlines our specific concerns regarding the proposed stormwater management system.

- The proposal includes a conventional drainage system – dense development with closed drainage system that discharges to a single infiltration basin in the rear of the site adjacent to the river. There is no attempt to employ low impact development/green infrastructure techniques to the project, which would decentralize the stormwater system and allow the development to reflect the natural hydrologic conditions as required by the MassDEP Stormwater Management Standards. There are significant opportunities to incorporate LID including reducing the impervious footprint, disconnection of roof drains, decentralizing the closed drainage system, and incorporating bioretention and porous pavement into the project.



- From the Natural Resources Conservation Service soil mapping, the on-site soils appear to be favorable for infiltration throughout the upland areas of the site. Integration of these additional systems will reduce the size of the basin that is in the lowest portion of the site and encroaches upon the resource areas
- On-site soil testing should be performed to confirm soil texture and estimated seasonal high groundwater elevation. The engineer is currently utilizing test pit data that is over 20 years old. The design documentation should be updated to confirm that the proposed design will meet the offset requirement for the infiltration basin and clarify the infiltration rate.
- The Applicant should confirm that they are using Atlas 14 rainfall data for the drainage analysis. SCS rainfall data is historical and does not allow the stormwater system to be sized based on current precipitation patterns.
- The Stormwater Report is missing the following information as required under the MassDEP Stormwater Management Standards:
 - Water quality calculations
 - Groundwater recharge calculations
 - Mounding calculations (if less than 4 foot offset to GW)
 - Closed drainage calculations
 - MassDEP Stormwater Checklist
 - LTPPP and O&M Plan
 - Illicit Discharge Statement

Wetland/Scenic Resource Areas

The following outlines specific concerns regarding potential impacts to wetlands and scenic resource areas:

- Project is partially located within North River Scenic Corridor. This includes the proposed infiltration basin and part of the recreational trail. We ask for this to be removed from the Scenic Corridor to maintain the public's scenic views from the river. And that there be an analysis of how this project will look from the point of view of public using the river. All attempts should be made to reduce impacts to the scenic vista from the North River for the public.
- Wetland resources include a Certified Vernal Pool abutting the site. The project may impact hydrology towards vernal pool/upper wetland. This should be analyzed by the Applicant to confirm the project will not negatively impact the vernal pool.
- In 2017, when the project was first proposed, an examination using Massachusetts GIS online mapping of natural resources showed that the majority of property, including the proposed development, was within mapped Natural Heritage and Endangered Species Priority Habitat. Since that time, the NHESP program removed this area, not because there was a study done to investigate whether the endangered species was still using this site, but because there had not been any documentation of that species on this site for over 25 years. We request that the site be assessed for the species to see if it no longer uses the site.



- The Applicant should confirm if the Project requires submittal for MEPA review. It appears that the proposed impervious areas, including pavement, gravel roads with compacted subbase, and roofs, will approximate five (5) acres which is a MEPA threshold.
- The Applicant is filling in wetlands to access upland for wastewater disposal. The Applicant should examine if there is an alternative to filling in wetlands and provide an alternatives analysis that does not involve filling in wetlands.
- Additional detail is needed for wetland crossing to determine the impacts to the jurisdictional resource areas. This includes a larger scale plan of the crossing to clarify the crossing type, associated grading and retaining wall construction, erosion and sediment controls, limit of work, and intended construction sequencing.

For these reasons and more we believe the density of this development is completely inappropriate at this site. The North River is a unique national, state and regional natural, scenic, cultural and recreational resource enjoyed by thousands of citizens on the South Shore and is worthy of protection. This is truly a special place with unique character and sensitive resources, and is a highly treasured regional asset. The density of the development proposed threatens to undermine the scenic quality, wildlife habitat, water quality, and environmental health of this unique natural resource.

Sincerely,

A handwritten signature in black ink that reads 'Samantha Woods'.

Samantha Woods
Executive Director, North and South Rivers Watershed Association

CC: North River Commission
Paul Jahnige, Mass Dept of Conservation and Recreation
NSRWA Board of Directors