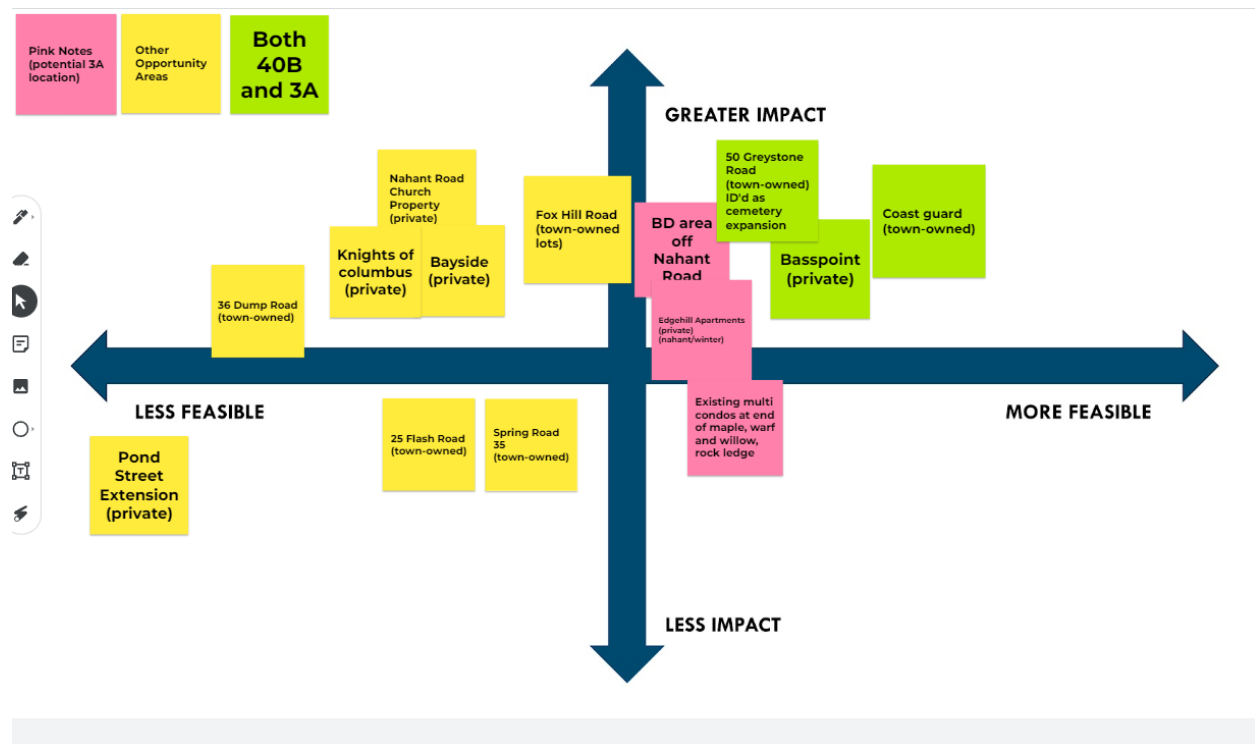


## Nahant HPP development constraints and opportunities maps

On April 13<sup>th</sup> the Nahant HPP housing-subcommittee met with the MAPC project team to discuss a preliminary list of HPP development opportunity sites and areas of interest to study further for potential 3A MBTA zoning. Some opportunity sites could also become areas for 3A zoning to be explored as this planning process continues to unfold. The committee discussed these sites and opportunity areas in terms of feasibility (anticipated development constraints) and impact (scale of Affordable Housing development) and the sites were evaluated through a google jamboard mapping activity. The results of this activity are shown in the figure below.

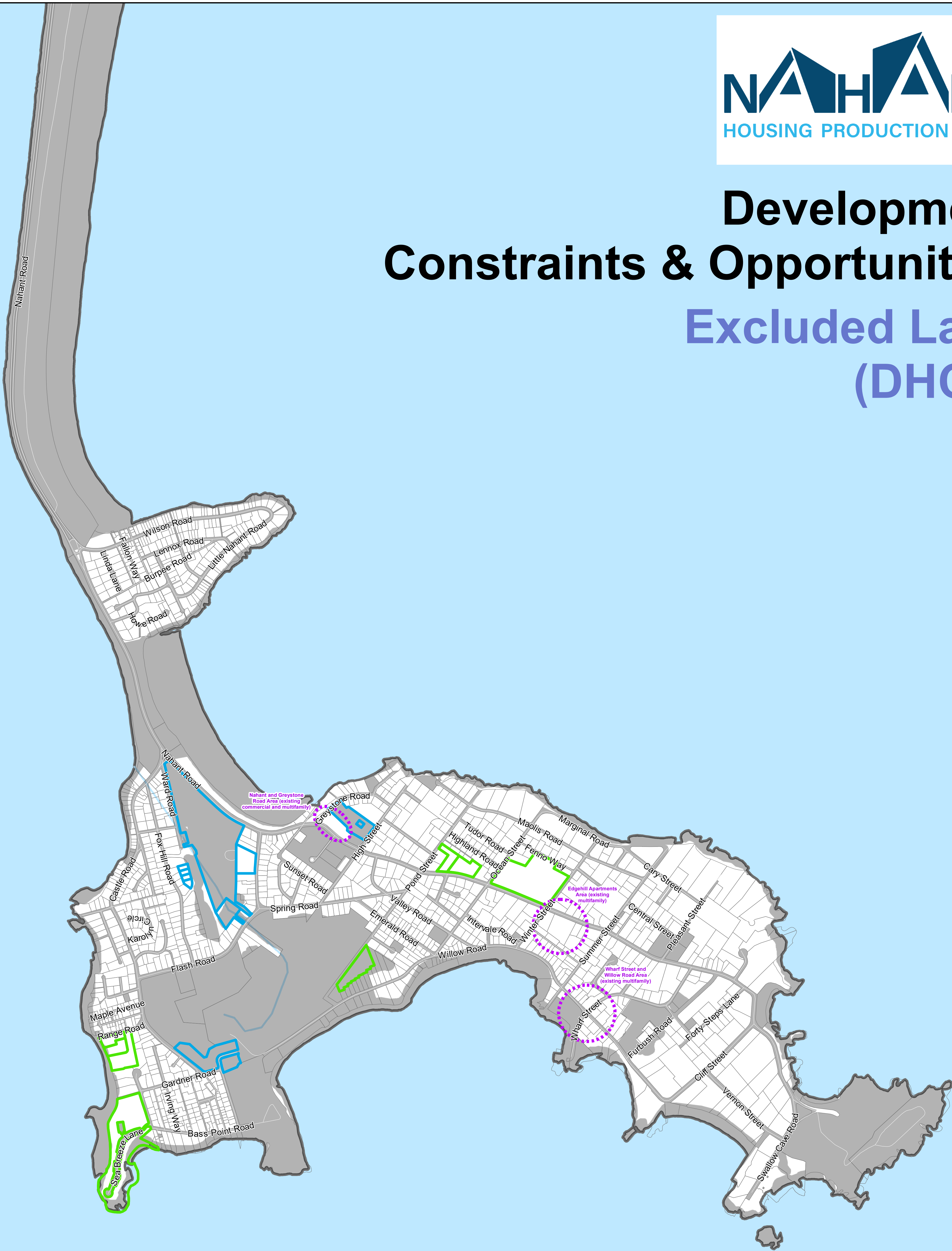
Figure 1 April 13<sup>th</sup> Committee Meeting - Nahant Opportunity Site Evaluation Jamboard



At the upcoming May 11<sup>th</sup> committee meeting, we aim to discuss these sites and areas again to narrow down a list that the committee would like to present for public input at the upcoming June forum. To inform this discussion, MAPC has prepared a series of maps illustrating development constraints that provide more information affecting the impact and feasibility of the development opportunity sites and areas of interest for 3A zoning. The following is a description of the data used in each map and a brief summary of themes we observe from the analysis.

# Development Constraints & Opportunities

## Excluded Land (DHCD)



- Excluded Land (DHCD)**
- Potential HPP Development Areas**
- Areas of Interest
  - Parcels
  - Publicly Owned
  - Privately Owned

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

0 0.2 0.4 Miles

Produced by: Metropolitan Area Planning Council

Data Sources: MAPC, MassGIS, MassDOT

May 2023



## Data

The excluded land map shows land designated by the Massachusetts Department of Housing and Community Development (DHCD) as being excluded from development consideration for complying with the Multifamily Zoning for MBTA Communities (3A) regulations. It displays the exact location of what land is excluded and may include an entire parcel or only parts of one.

NOTE: as explained below, publicly-owned land is assumed to be used for institutional purposes and is shown as excluded on this map, but Nahant may identify publicly-owned land that is not being used for institutional purposes that is determined to be a potential development opportunity and ask DHCD to qualify this land for 3A zoning. Any site, public or private, identified as a development opportunity in the Nahant HPP can be considered eligible for 3A zoning.

Much of the land in the map is excluded because of the land being publicly owned/purposed (Town Hall, Library, etc.), or because of another occurring natural or man-made constraint and includes public rights-of-way such as public roadways and flood zones and protected open space. These are the common themes that guide the excluded land decision-making, however, there are many reasons DHCD would exclude land.

Land becomes excluded because of one, or more of the seven reasons DHCD has defined in their 3A guidelines, using ownership references, use codes, use restrictions, and various land characteristics related to hydrology in the MassGIS system. These seven criteria are<sup>1</sup>:

1. All publicly-owned land, except for lots or portions of lots determined to be developable public land.
2. All rivers, streams, lakes, ponds, and other surface water bodies.
3. All wetland resource areas, together with a buffer zone around wetlands and waterbodies equivalent to the minimum setback required by Title 5 of the state environmental code.
4. Protected open space and recreational land that is legally protected in perpetuity (for example, land owned by a local land trust or subject to a conservation restriction), or that is likely to remain undeveloped because of functional or traditional use (for example, cemeteries).
5. All public rights-of-way and private rights-of-way.
6. Privately-owned land on which development is prohibited to protect private or public water supplies, including, but not limited to, Zone I wellhead protection areas and Zone A surface water supply protection areas.
7. Privately-owned land used for educational or institutional uses such as a hospital, prison, electric, water, wastewater or another utility, museum, private school, college, or university.

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<sup>1</sup> Excluded land criteria from the DHCD 3A guidelines at <https://www.mass.gov/info-details/section-3a-guidelines>

## **Nahant Context**

There are some common themes apparent when viewing this map. The dataset excludes the entire coastline from development, as is the causeway connecting Nahant with the neighboring mainland community: Lynn. Areas designated as protected open space are shown predominantly on the southeastern edge of Big Nahant. The excluded land shown on the map does not have the additional context of the reasons that DHCD made the land excluded, except for the publicly owned parcels identified as opportunity sites. Because of this, the other maps, particularly the flood zones and open space maps, should be used in decision-making to find out if any parcels with excluded land could be included. The data also shows lowlands prone to flooding as excluded. These include the compost/dump site and the Kelley Greens Golf Course; however other land may be excluded for reasons that would not impede residential development.

As noted earlier, DHCD will allow excluded land to be included for 3A districts as long as the HPP identifies this land as a part of a residential development opportunity.

## **Takeaways**

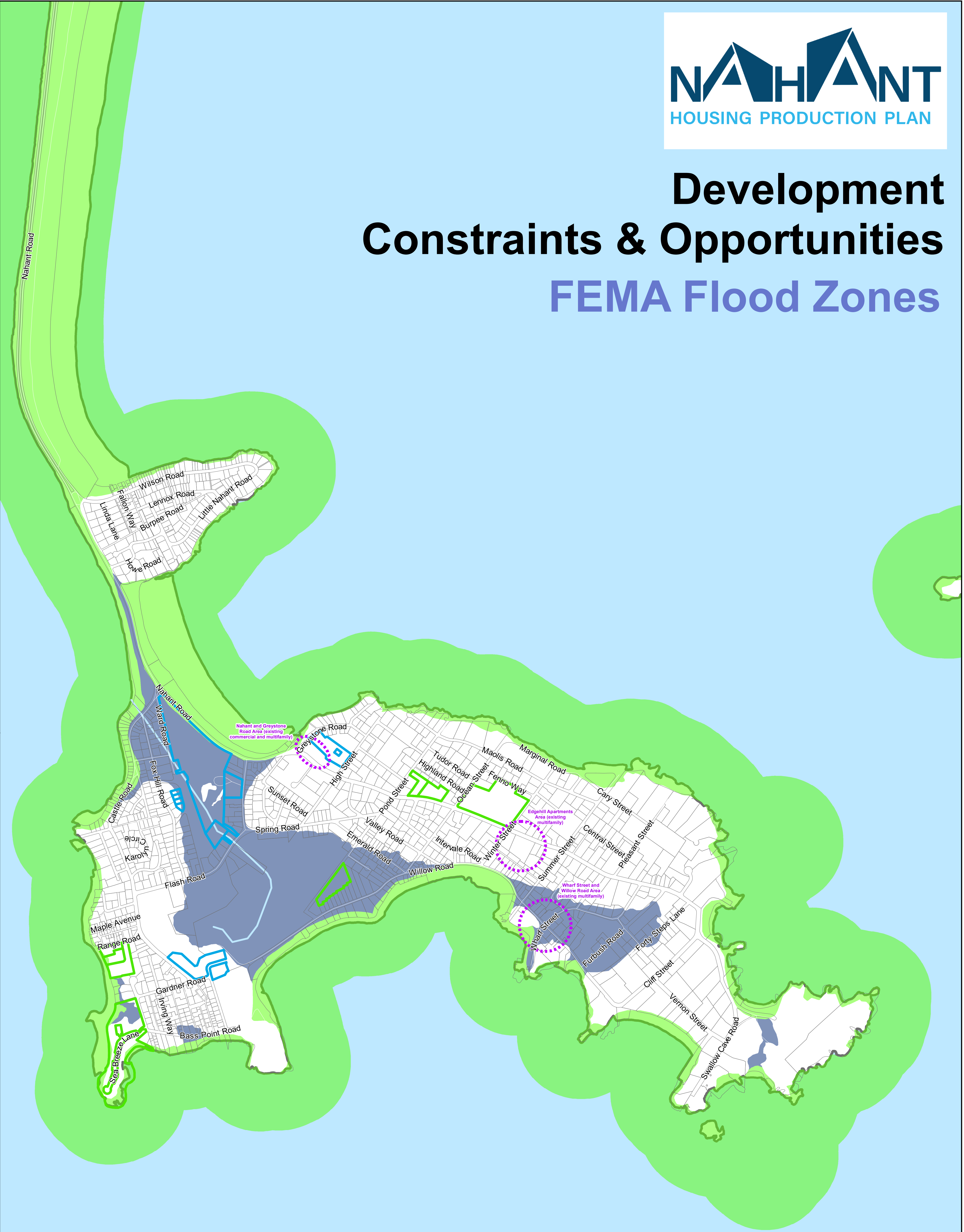
Even though some land shows as excluded according to DHCD's data, that does not mean that we should exclude it from our site selection. Nahant holds public land that could be developed or redeveloped for residential use. This includes the Coast Guard housing site as well as several other publicly-owned sites identified as potential development opportunities.

Land that is part of the flood zones, including the Kelley Greens Golf Course and the area around the dump/compost site, as well as the protected open space on the eastern end of Big Nahant has severe development constraints and shouldn't be considered as development opportunities.



# Development Constraints & Opportunities

## FEMA Flood Zones



### Flood Zones

- 1% Annual Chance of Flooding or Ponding
- High Risk Coastal Area

### Potential HPP Development Areas

- Publicly Owned
- Privately Owned

### Areas of Interest

- Parcels

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0 0.2 0.4 Miles

Produced by: Metropolitan Area Planning Council

Data Sources: MAPC, MassGIS, MassDOT

May 2023



## **Data**

The Federal Emergency Management Agency (FEMA) provides flood zone data to understand potential severe weather impacts on the community. It maps two important pieces of data. The first is the flood zone with a 1% annual chance of flooding or ponding, which means for any area within this zone there is statistically a 1% chance that in any given year, the area will flood. These are “100-year flood zones”. The second piece of data mapped is the “High-Risk Coastal Areas”, areas that will have fast-moving water and waves greater than three feet during a flood event. FEMA also refers to these areas as “V zones”.

## **Nahant Context**

There are five distinct areas shown within the flood zone. The most prominent include a substantial portion of the western part of Big Nahant, ranging from the causeway, through the compost/dump site, south to encompass the Kelley Greens Golf Course and many nearby parcels. The second zone is lowlands further east, containing parcels between Summer Street to the west, Forty Steps Land to the East, and Wharf Street running north and south. A portion of the undeveloped land on the Bass Point Apartments site and a nearby flood zone on Bass Point Road will be important to note when considering development options; while the fifth site is at the southeastern side of Big Nahant and is undevelopable open space.

All of Nahant’s coast and the causeway are part of the “High-Risk Coastal Area”, where the waters during a flood will be hazardous.

## **Takeaways**

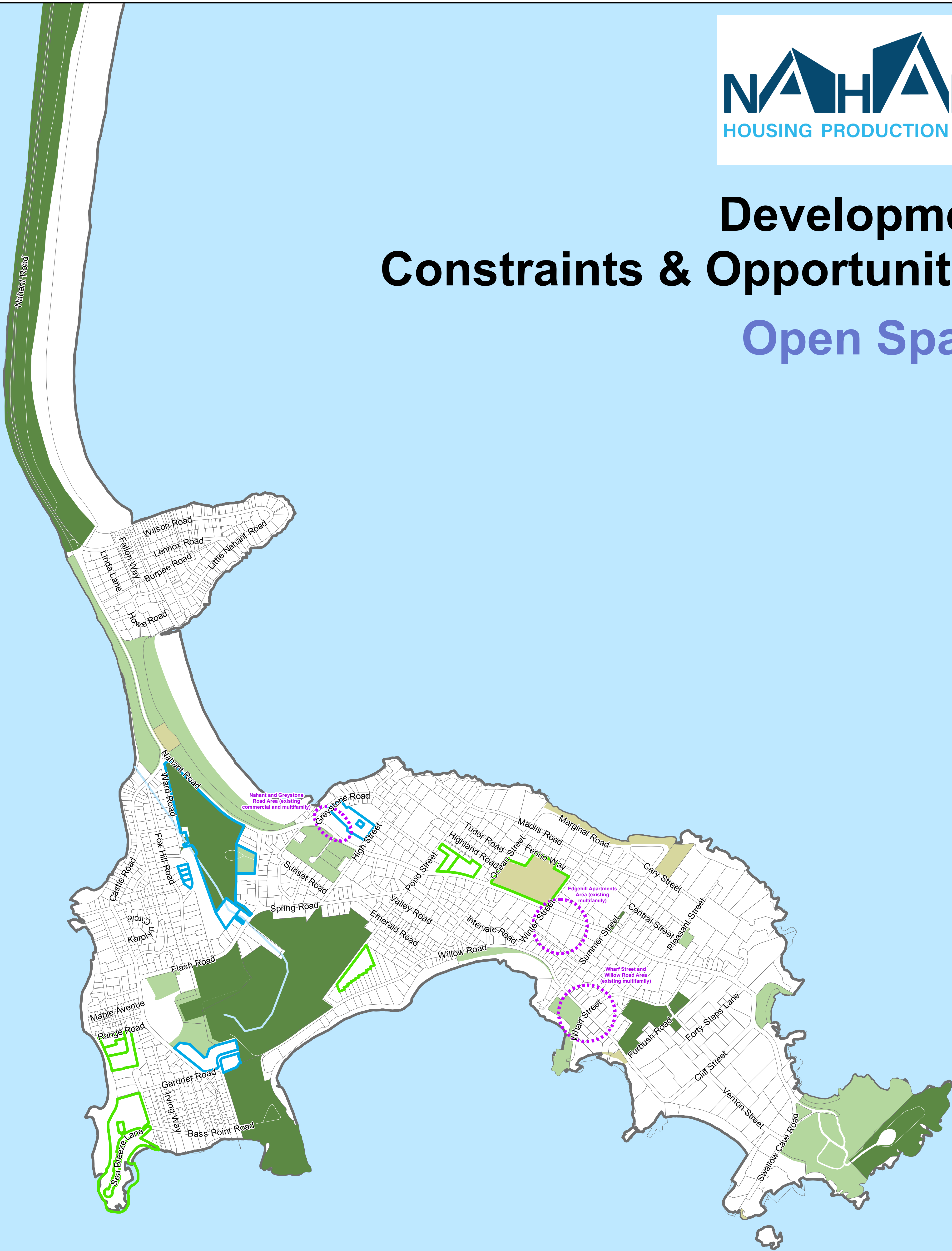
The data described on this map closely aligns with the previous Excluded Land map, showing that while some land is excluded because of government ownership, the vast majority of land is excluded because it is a high-risk coastal area or because it is prone to flooding. Areas that are prone to flooding are challenging to develop but may not be impossible based on the percentage of the parcel that is flood-prone when put in other development constraints. For example, the Knights of Columbus site near Range Road on the western side of Big Nahant has high coastal risk, but only a small portion of the parcel is affected, and the parcel would make a suitable candidate for residential development.

We recommend the committee not consider parcels where most of the parcels are at high risk for flooding until the committee has exhausted other options.



# Development Constraints & Opportunities

## Open Space



- |                       |  |                   |
|-----------------------|--|-------------------|
| Permanently Protected | <b>Potential HPP Development Areas</b> | Areas of Interest |
| Limited Protection    | Publicly Owned                         | Parcels           |
| No Protection         | Privately Owned                        |                   |

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

0 0.2 0.4 Miles

Produced by: Metropolitan Area Planning Council

Data Sources: MAPC, MassGIS, MassDOT

May 2023



## **Data**

This map shows the open space dataset that contains three different levels of open space protection. Permanently protected open space is restricted to be open space permanently either through a deed restriction or another government issued document. Land designated as open space with limited protection does not have any official deed restriction but has either a temporary easement on the property which prevents development, or a current use that makes redeveloping the property unlikely. Unprotected open space has neither and may be subject to redevelopment.

## **Nahant Context**

All permanently protected open space is not part of consideration for future development. Like many other constraints, these areas include the causeway, the area around the compost / dump site, the area around the golf course, and the area around the southeastern edge of Big Nahant, where space near and around the Northeastern Marine Science Center is located. The parcel near Nahant Road and Ocean Street is the Nahant Country Club Estate property. This site is unprotected open space and is identified as a potential housing development opportunity.

## **Takeaways**

The committee should remove any land that is listed as permanently protected open space from consideration unless the committee strongly feels that there could be an error in this designation. These parcels are likely to be deed-restricted open space, and changing that would be a challenge, especially when we consider that much of the permanently protected open space is also areas prone to flooding and sea-level rise.

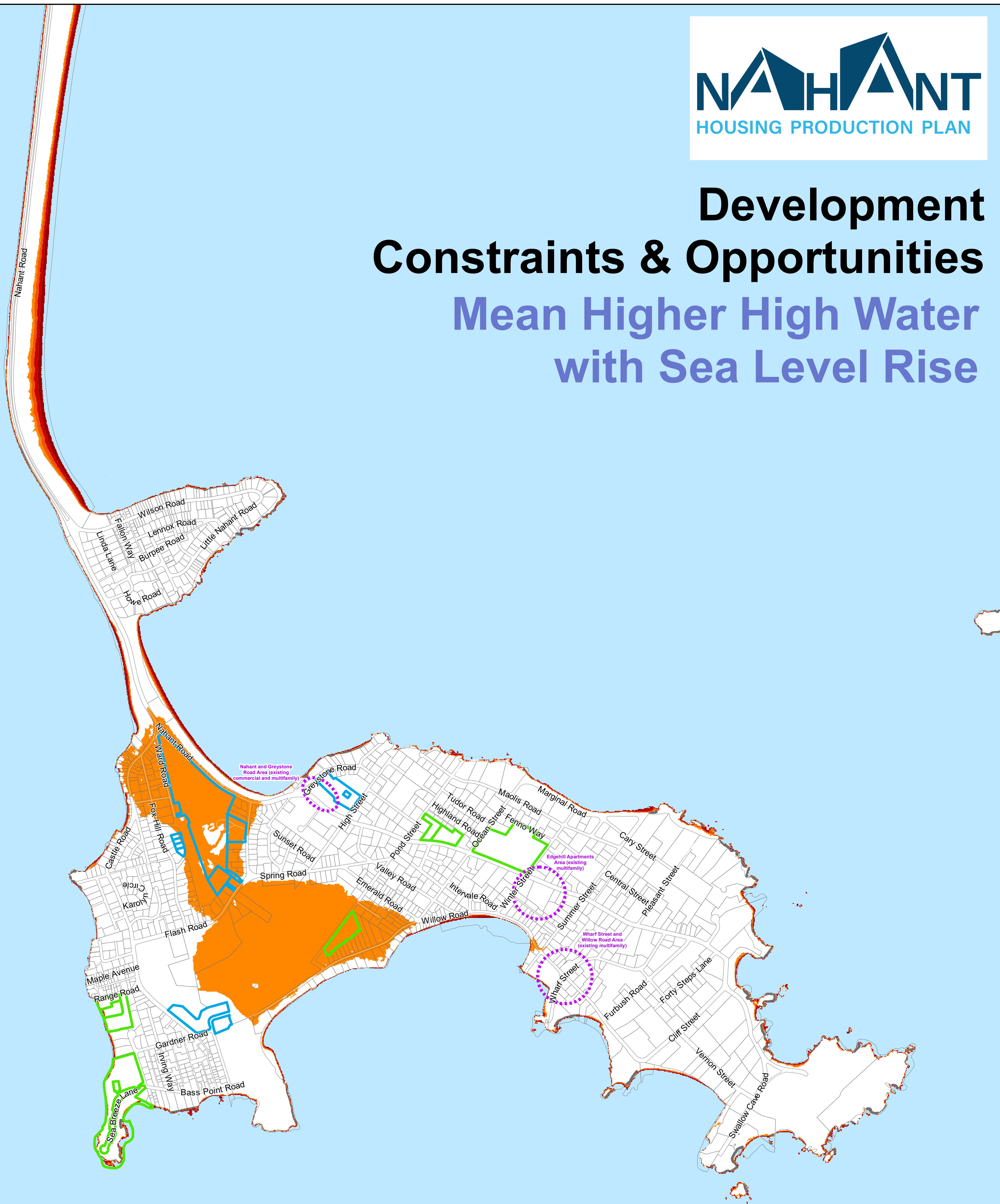
Like permanently protected open space, the committee should remove any sites that have limited protection from consideration. This land is primarily the Northeastern Marine Science Center, the causeway, and other land that is not likely to be developed or is highly prone to flooding.

Of the parcels that have no open space protection, there is only one parcel that is neither coastal nor along the causeway, and that is the Country Club Estate property near Nahant Road and Ocean Street. The Town and MAPC have identified this site as a potential residential redevelopment site and this area could also be a strong candidate for potential 3A zoning.



# Development Constraints & Opportunities

## Mean Higher High Water with Sea Level Rise



Mean Higher High Water (MHHW)  
MHHW + 1 ft Sea Level Rise  
MHHW + 2 ft Sea Level Rise  
MHHW + 3 ft Sea Level Rise  
MHHW + 4 ft Sea Level Rise (2070)

Parcels  
Areas of Interest

#### Potential HPP Development Areas

Publicly Owned  
Privately Owned

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

0 0.2 0.4 Miles

Produced by: Metropolitan Area Planning Council

Data Sources: MAPC, MassGIS, MassDOT, NOAA

May 2023



## **Data**

The sea level impacts dataset from the Commonwealth of Massachusetts shows what likely impacts sea level rise will have on a community because of climate change. Mapped is the current average height of the water at high tide, the “Mean Higher High Water (MHHW)”, alongside potential increases in that mean of up to four feet. We chose four feet for map symbology as the 2070 sea level rise data indicates there could be an estimated increase of up to 4.2ft in sea level rise by 2070<sup>2</sup>.

## **Nahant Context**

The sea level data shows that by 2070, areas of Nahant that will be substantially affected will not be limited to the coastal and causeway areas of town. Rising waters will drastically affect a substantial portion of the western part of Big Nahant ranging from the causeway entrance to the southern coast of Nahant past the Kelley Greens Golf Course.

## **Takeaways**

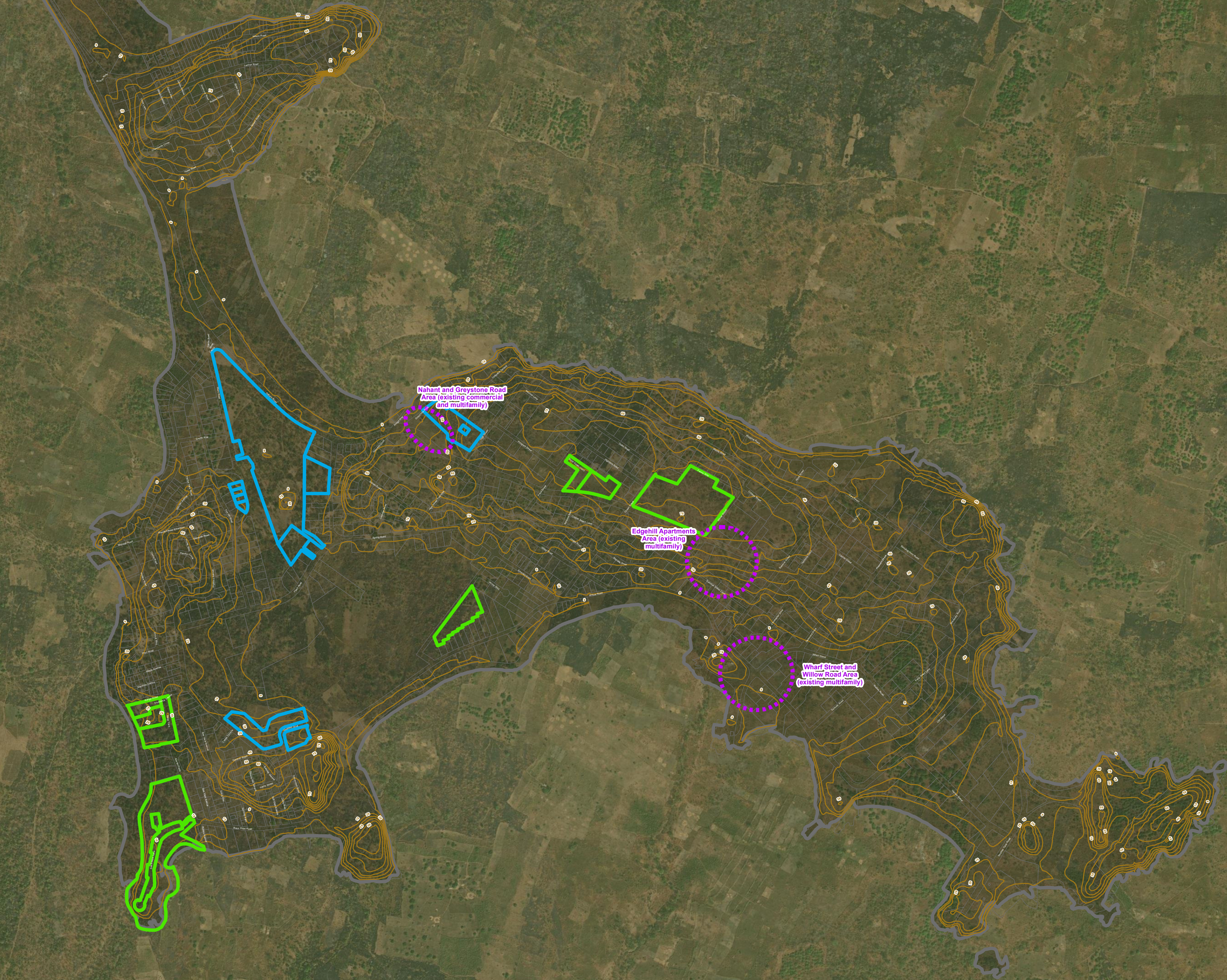
This map largely reinforces what the flood-zone map shows: that areas around the dump/compost site and the Kelley Greens Golf Course are not suitable for development in the long-term and the short term. We recommend the committee avoid parcels that will likely be under water by 2070 for residential redevelopment considerations.

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<sup>2</sup> From the Massachusetts Bureau of Environmental Health <https://www.mass.gov/info-details/sea-level-rise>



Development  
Constraints & Opportunities  
Elevations



Topography (3m countour)

Areas of Interest

Parcels

Potential HPP Development Areas

Publicly Owned

Privately Owned

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Produced by: Metropolitan Area Planning Council

Data Sources: MAPC, MassGIS, MassDOT

May 2023

00.20.4 Miles

MAPC

dcrc

Sources: Esri, Maxar, Earthstar, GeoGraphics, and the GIS User Community

Document Path: K:\SG Land Use\Planning Projects by Municipality\Nahant\Nahant HPP and 3A - 2022\Data & GIS\GIS\Nahant Development Constraints - Topography.mxd



## **Data**

The topographical map shows contour lines displaying the elevation above sea level. This information is important to consider for Nahant, a geographically small community with substantial elevation changes that could impact development feasibility in certain areas. MAPC mapped the contour lines with labels noting the number of feet above sea level.

## **Nahant Context**

Areas with steep elevation, especially those on the western portion of Big Nahant and the eastern portion of Little Nahant, will probably cause challenges for multifamily development and should be taken into consideration when prioritizing development opportunities. An area with steep slopes may be cost-prohibitive, or otherwise difficult, to develop certain multifamily building types on, but this doesn't necessarily mean development is not possible.

## **Takeaways**

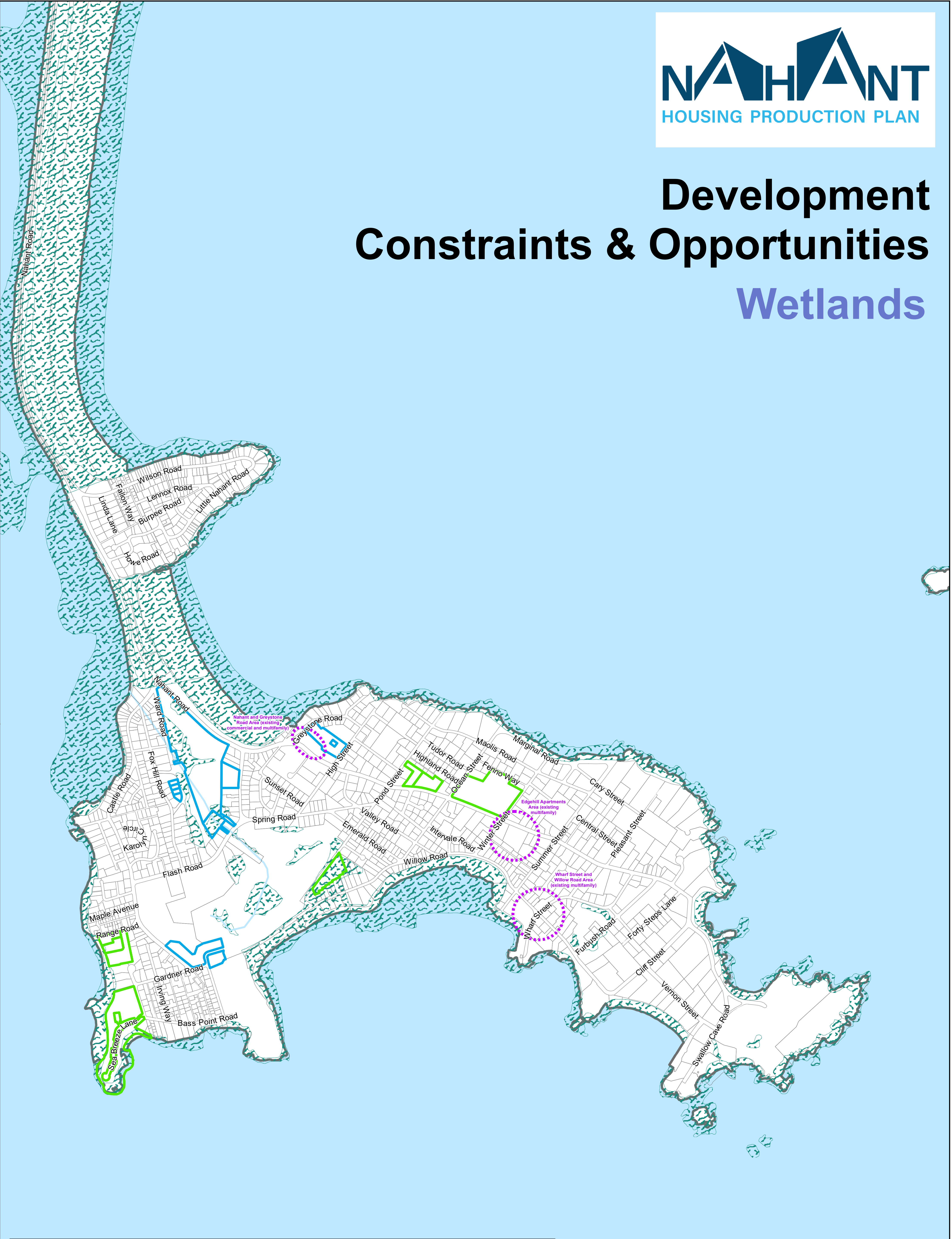
This map is challenging to read in a word document because of its level of detail and should be examined from a PDF so a zoomed in view is possible. The closer contour lines are together, the steeper the slope is at that location. The coast guard site and cemetery expansion site have some elevation changes that may affect development opportunities, but they do not appear to be severe or all encompassing. Areas of interest around the cemetery expansion site where the housing authority property is and the Edgehill Apartments both appear to have elevation changes as well.

The committee should use their institutional knowledge of Nahant's topography to consider how these grade changes might impact the feasibility of multifamily development and what type and scale of development would be more feasible. This means the committee should examine these maps not from a perspective of "multifamily should or shouldn't go there", but instead "what type of multifamily housing is best suited for development given these challenges".



# Development Constraints & Opportunities

## Wetlands



Wetlands

Areas of Interest

Parcels

Potential HPP Development Areas

Publicly Owned

Privately Owned

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

Produced by: Metropolitan Area Planning Council

Data Sources: MAPC, MassGIS, MassDOT

May 2023

0 0.2 0.4 Miles





## **Data**

While there are many ways to define wetlands, they're typically areas that are saturated with groundwater. The data shows exact locations and may only cover certain portions of a parcel. These areas are often near sea level and offer substantial benefits for controlling floods and increasing biodiversity in a region. Wetlands present a myriad of development challenges, and likely intersect with other development constraints such as flood zones.

## **Nahant Context**

In Nahant, wetlands cover the entire coast and the causeway. The southern edge of Big Nahant shows abundant wetlands on the north and south sides of Willow Road, as well as within the Kelley Greens Golf Course and around the dump/compost site further north near Nahant Road and Ward Road.

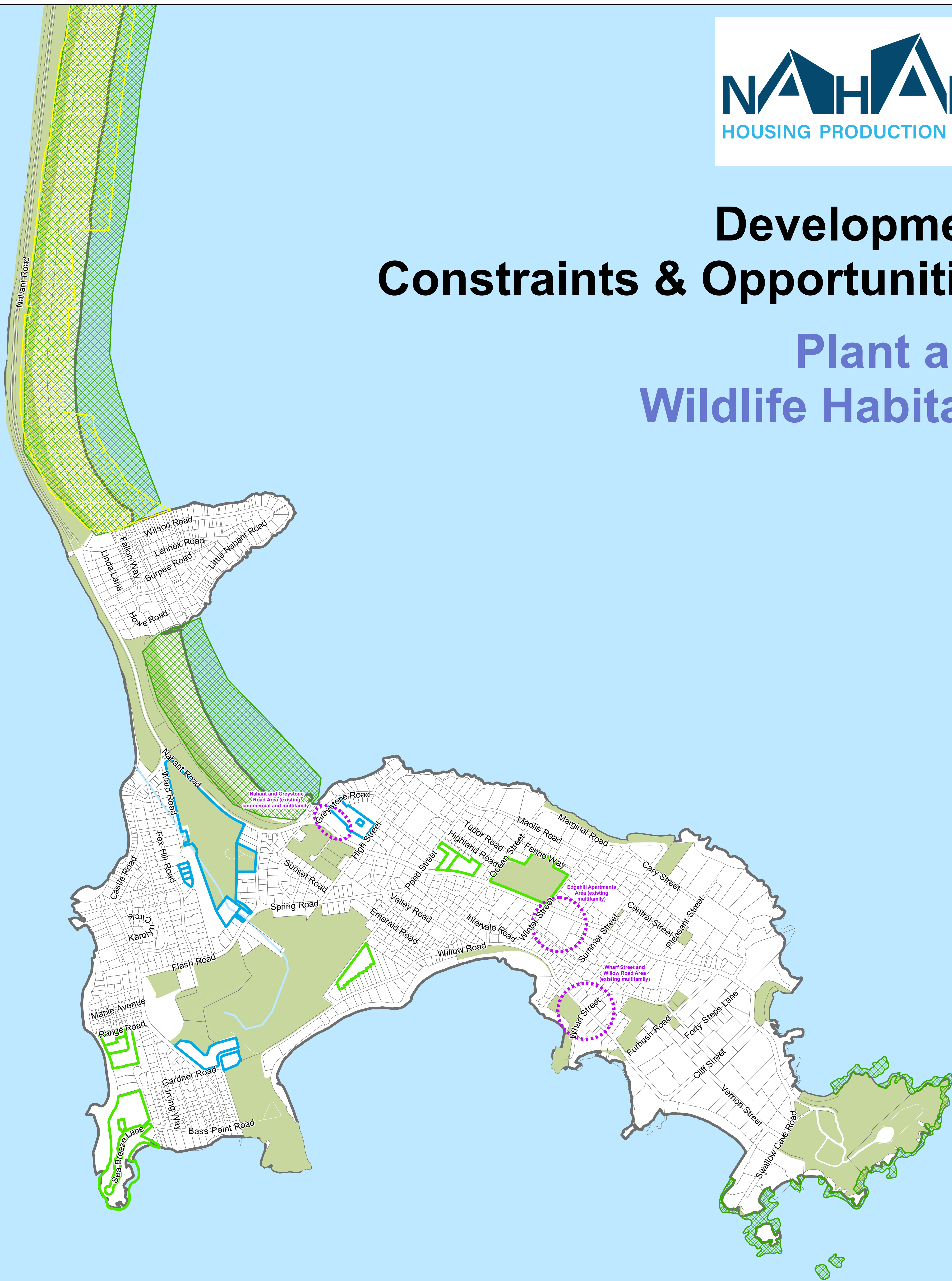
## **Takeaways**

As the committee decides on potential development sites, wetlands should be considered a substantial development constraint. This doesn't necessarily mean development isn't possible depending on the specific circumstances of the site, but it does indicate development will be more challenging. If a parcel is next to a wetland parcel at a lower elevation, the concerns are not as great.



# Development Constraints & Opportunities

## Plant and Wildlife Habitats



- BioMap2 Core Habitat
- Priority Habitats of Rare Species
- Open Space
- Parcels

- Areas of Interest
- Potential HPP Development Areas**
- Publicly Owned
- Privately Owned

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0 0.2 0.4 Miles

Produced by: Metropolitan Area Planning Council

Data Sources: MAPC, MassGIS, MassDOT

May 2023





## Data

We represent wildlife habitats in two different datasets that help identify places that are of substantial importance to protecting the State's biodiversity in the context of global climate change. These data are:

1. **Core habitat:** “areas critical for the long-term persistence of rare species, exemplary natural communities, and resilient ecosystems.
2. **Priority habitats of rare species:** “based on the known geographical extent of habitat for all state-listed rare species, both plants and animals, and is codified under the Massachusetts Endangered Species Act (MESA). Habitat alteration within Priority Habitats may result in a take of a state-listed species and is subject to regulatory review by the Natural Heritage & Endangered Species Program.”<sup>3</sup>

Nahant's open space is shown in a previous map that provides additional context.

## Nahant Context

Endangered plants and animals are important considerations when selecting development locations in any cause. For housing opportunity considerations in the Nahant HPP, it's unlikely that there will be any concerns about encroaching on any core or priority habitats. These areas are limited to parts of the coast where there is existing protected open space or floodways that would largely prevent development regardless of the presence of sensitive species habitat.

## Takeaways

The committee should know how all residential development could impact both the core habitat and the priority habitats of rare species; however, these concerns do not appear to be a hinderance to residential development or redevelopment in Nahant. The areas shown on the map do not lend themselves to development opportunities for a variety of other reasons, including protected open space and flood concerns. All potential HPP development site locations and areas of interest should avoid these areas completely, and doing so should not affect site location choices.

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<sup>3</sup> Regulatory Maps: Priority & Estimated Habitats <https://www.mass.gov/service-details/regulatory-maps-priority-estimated-habitats>