New Site Design – 4HY0603B
RF Affidavit
Statement of Need

The undersigned hereby states the following in support of the application by T-Mobile, hereafter referred to as "Applicant', to install wireless communications broadcast/receive equipment at 101 Red Brook Road, Mashpee, MA hereinafter referred to as the "Site".

Currently, T-Mobile provides insufficient wireless communication service to the South of Mashpee particularly along Red Brook Road and surrounding commercial and residential areas. The proposed site will enable it to fulfill its objective of providing such service pursuant to its Federal Communications Commission ("FCC") license.

The wireless communications service that T-Mobile proposes to provide is part of an existing nationally based network and will include enhanced voice and data capabilities through the use of new Long Term Evolution technologies that is focused on high capacity and speed. The service will also provide an enhanced 911 capability so that emergency responders can pinpoint the location of callers within the service area.

The Red Brook Road and the surrounding areas is critical to T-Mobile's network because it is the main transportation route in the area connecting the towns of Mashpee, Seabrook and New Seabury. It is an area that T-Mobile provides insufficient wireless communication service. Accordingly, T-Mobile requires the proposed site at the height of 135 feet on the proposed location to effectively provide wireless communication service to the Town of Mashpee and surrounding areas pursuant to its FCC license.

Other Benefits

Wireless communication technology provides vital communications in "911" and other emergency situations and is used to promote efficient and effective personal, business, governmental and agricultural communications. These services have become established and accepted as an integral part of the nation's communications infrastructure and promote the public health, safety, morals, comfort and general welfare.

- The number of 911 calls placed by people using wireless phones has significantly increased in recent years. It is estimated that about 70 percent of 911 calls are placed from wireless phones, and that percentage is growing. For many Americans, the ability to call 911 for help in an emergency is one of the main reasons they own a wireless phone. (source: FCC webpage)

- Each day more than 350,000 9-11 calls are made on cell phones, which is over one half of all emergency calls that are placed.

- More than 60,000 9-1-1 calls are made on the Applicant's network every day

Regulatory Compliance and Safety

The Telecommunication Facility will continue to meet all applicable health and safety standards, as noted above. The Applicant is licensed and regulated by the Federal Communications Commission (FCC), which imposes strict health and safety standards governing construction requirements, technical standards, interference protection, power and height limitations, and radio frequency standards.

These standards are set by independent safety and standard groups such as the American National Standards Institute (ANSI) and the Institute of Electrical Electronics (IEEE). The Applicant will comply with these standards. T-Mobile also intends to comply with applicable FAA guidelines.

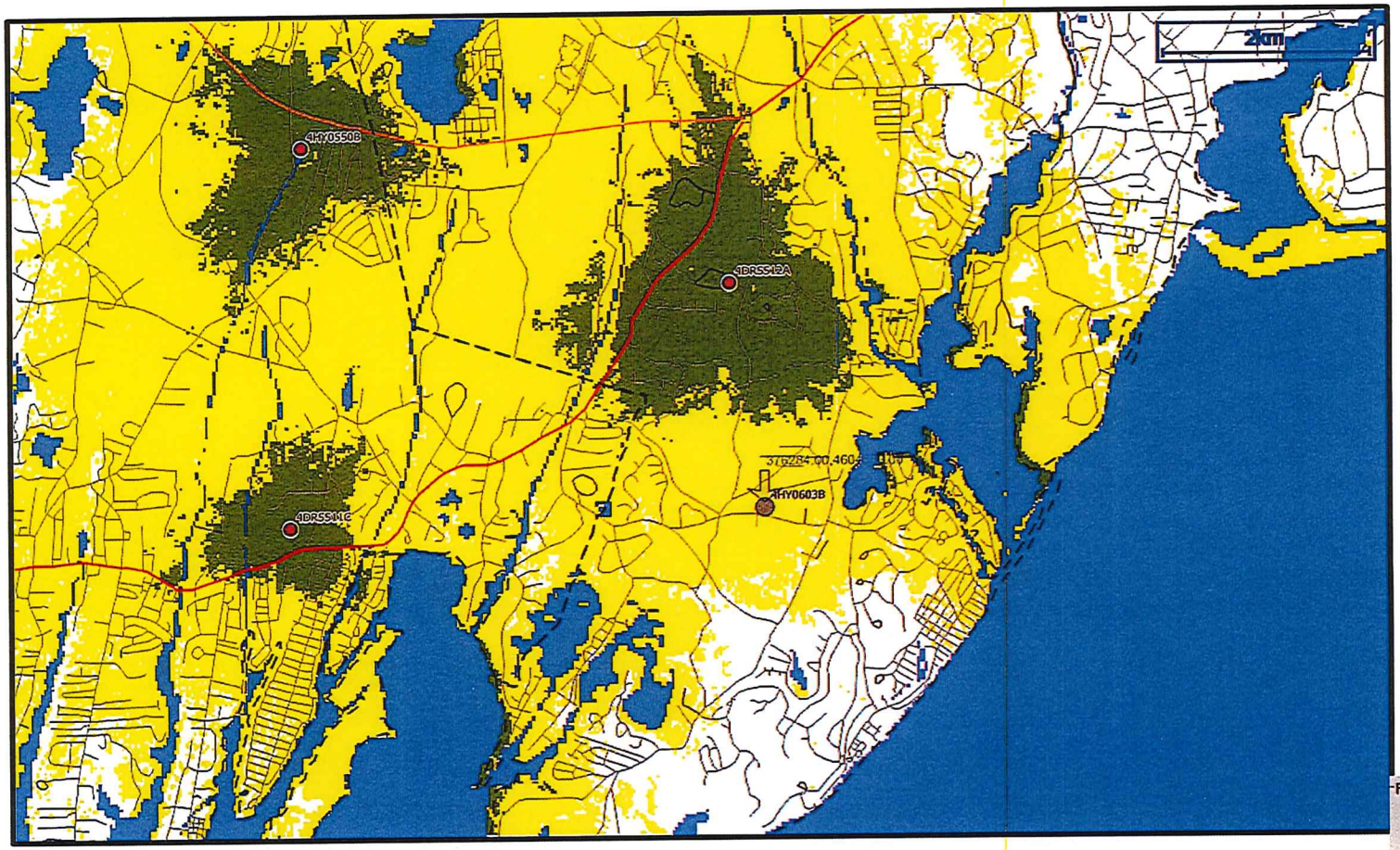
T-Mobile Radio Frequency Engineer

Richard Kariuki

Signature

5/1/18

Existing LTE 2100 MHz Coverage in Mashpee, MA



Existing T-Mobile On-Air Site

Propose T-Mobile Site

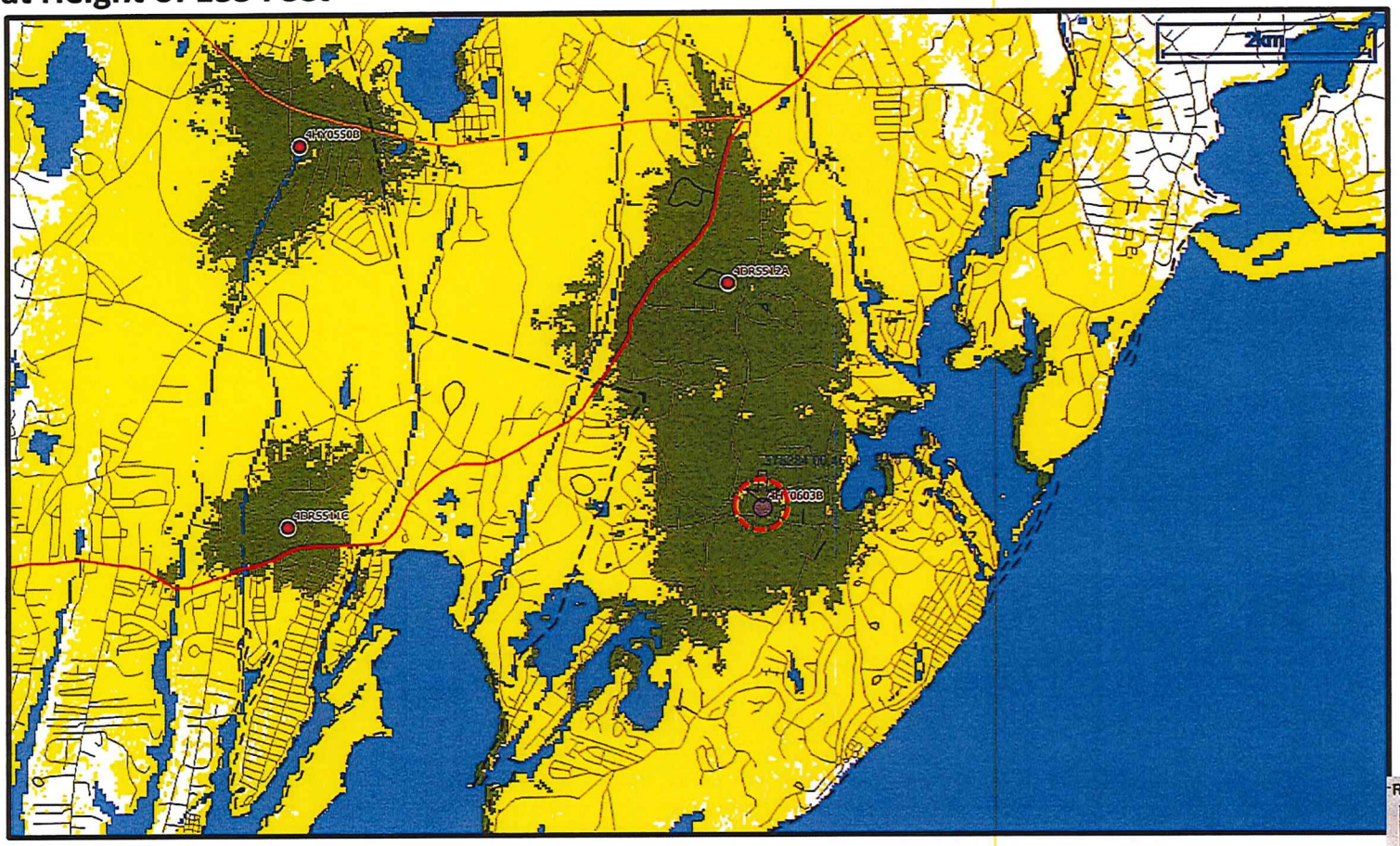
- Other_Road
  - Line
    - Line 1
- Primary_Road
  - Line
    - Line 1
- Secondary_Road
  - Line
    - Line 1
- Neighborhood_Road
  - Line
    - Line 1

Ranges

Minimum	Maximum	Label	Colour
-114	-97	In-Vehicle	
-97	0	In-Building	

5/1/18

Propose LTE 2100MHz Coverage with Primary Candidate at 101 Red Brook Road, Mashpee, MA at Height of 135 Feet



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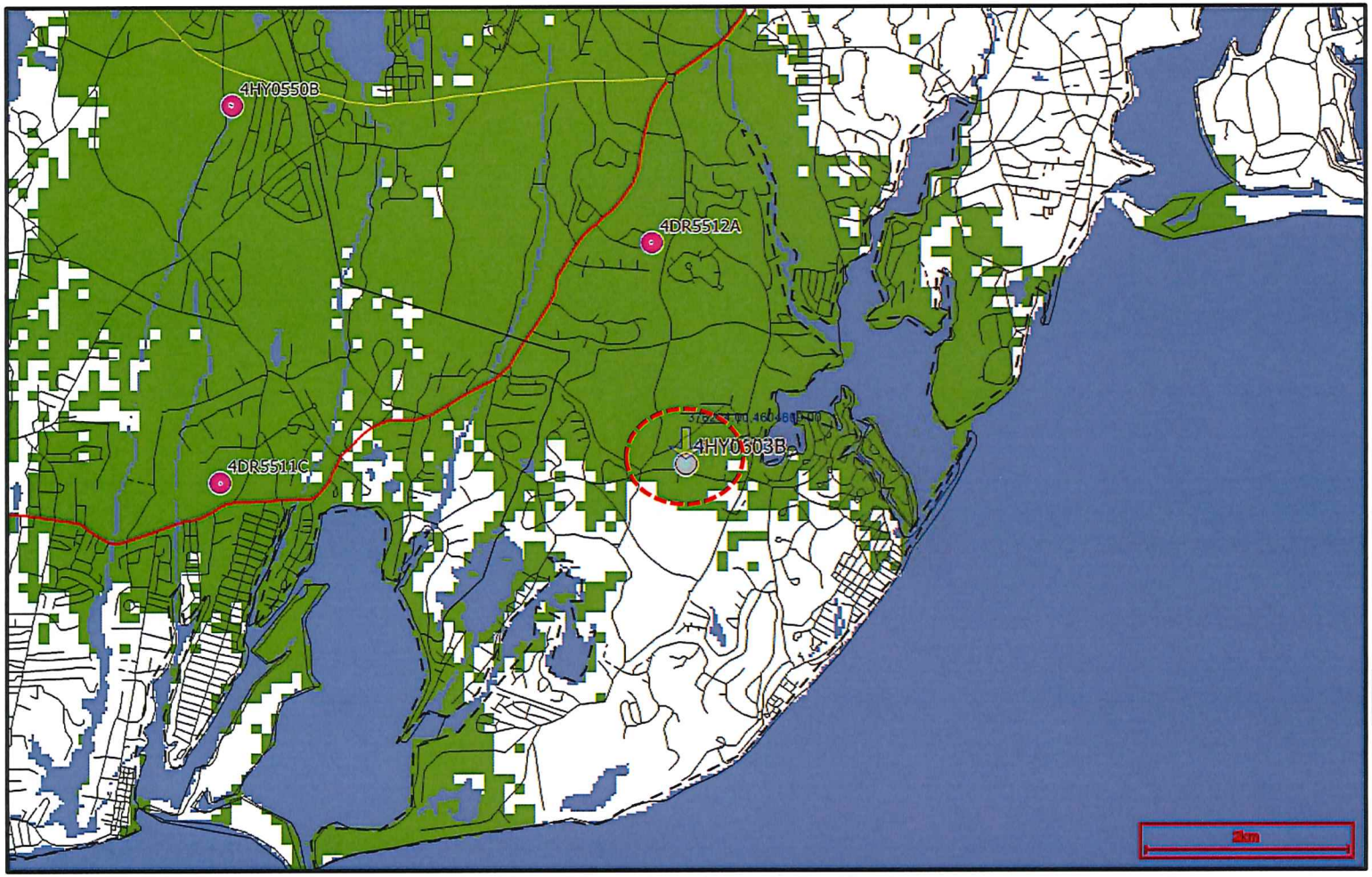
Ranges

Minimum	Maximum	Label	Colour
-114	-97	In-Vehicle	
-97	0	In-Building	

Existing LTE L700 MHz Coverage in Mashpee, MA



Existing T-Mobile On-Air Site

Propose T-Mobile Site

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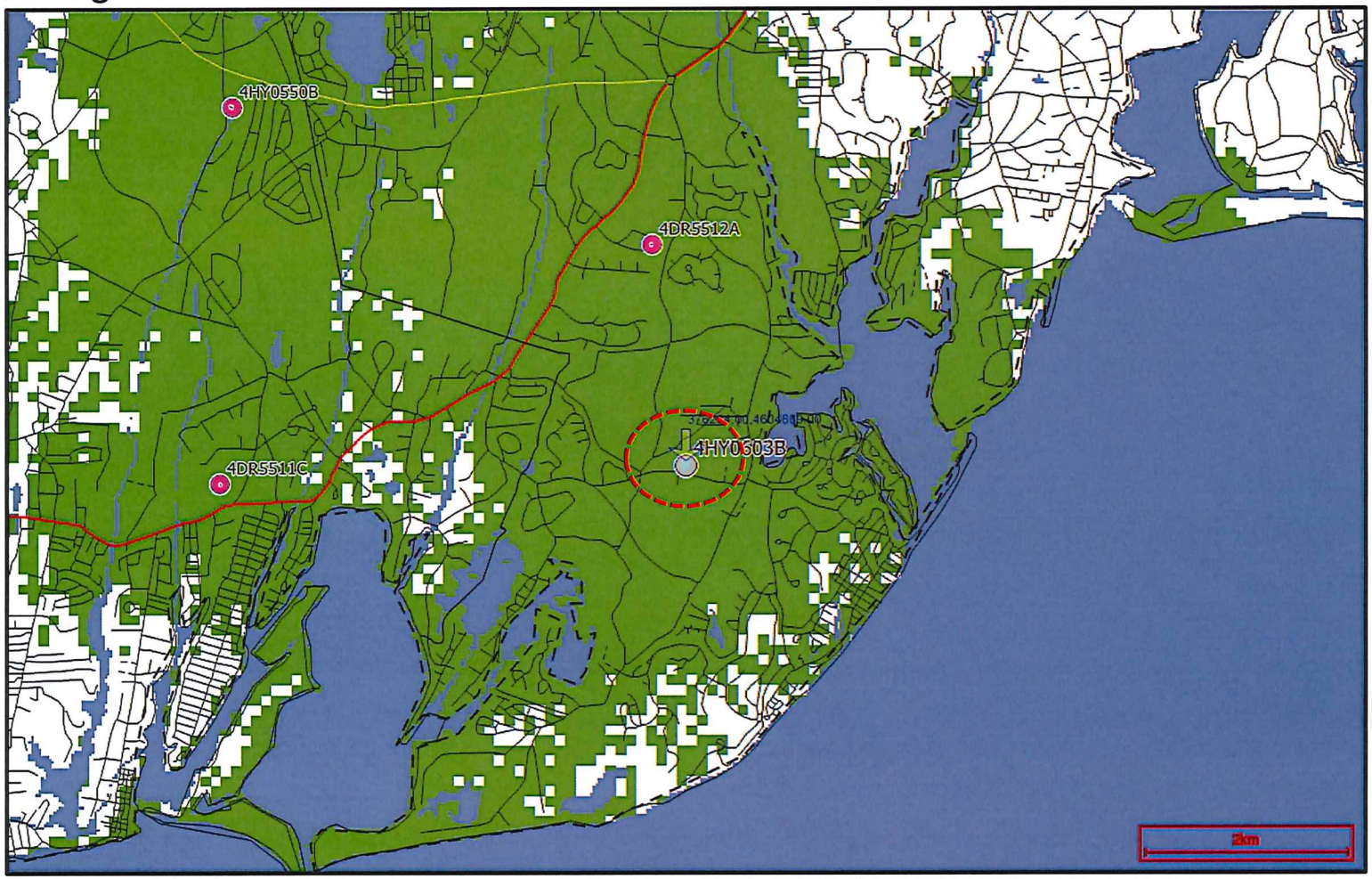
  - Line
    - Line 1
- Primary_Road
  - Line
    - Line 1
- Secondary_Road
  - Line
    - Line 1
- Neighborhood_Road
  - Line
    - Line 1

Minimum	Maximum	Label	Colour
-97	0	In-Building	

Propose LTE 700 MHz Coverage with Primary Candidate at 101 Red Brook Road, Mashpee, MA at Height of 135 Feet



Existing T-Mobile On-Air Site

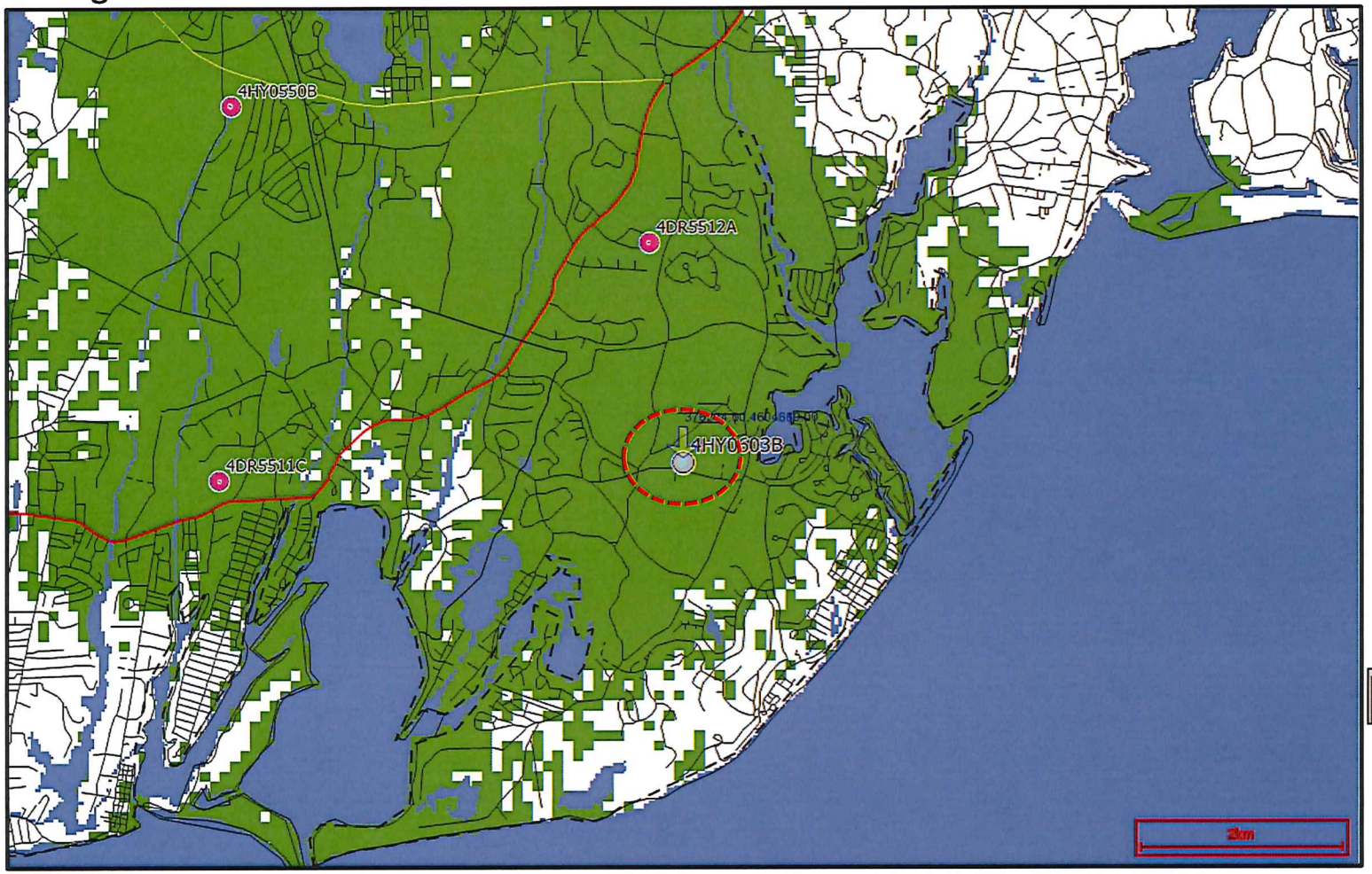
Propose T-Mobile Site

- Other_Road
  - Line
    - Line 1
- Primary_Road
  - Line
    - Line 1
- Secondary_Road
  - Line
    - Line 1
- Neighborhood_Road
  - Line
    - Line 1

Minimum	Maximum	Label	Colour
-97	0	In-Building	

9/5/18

Propose LTE 700 MHz Coverage with Primary Candidate at 101 Red Brook Road, Mashpee, MA at Height of 110 Feet



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- Secondary_Road
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    - Line 1
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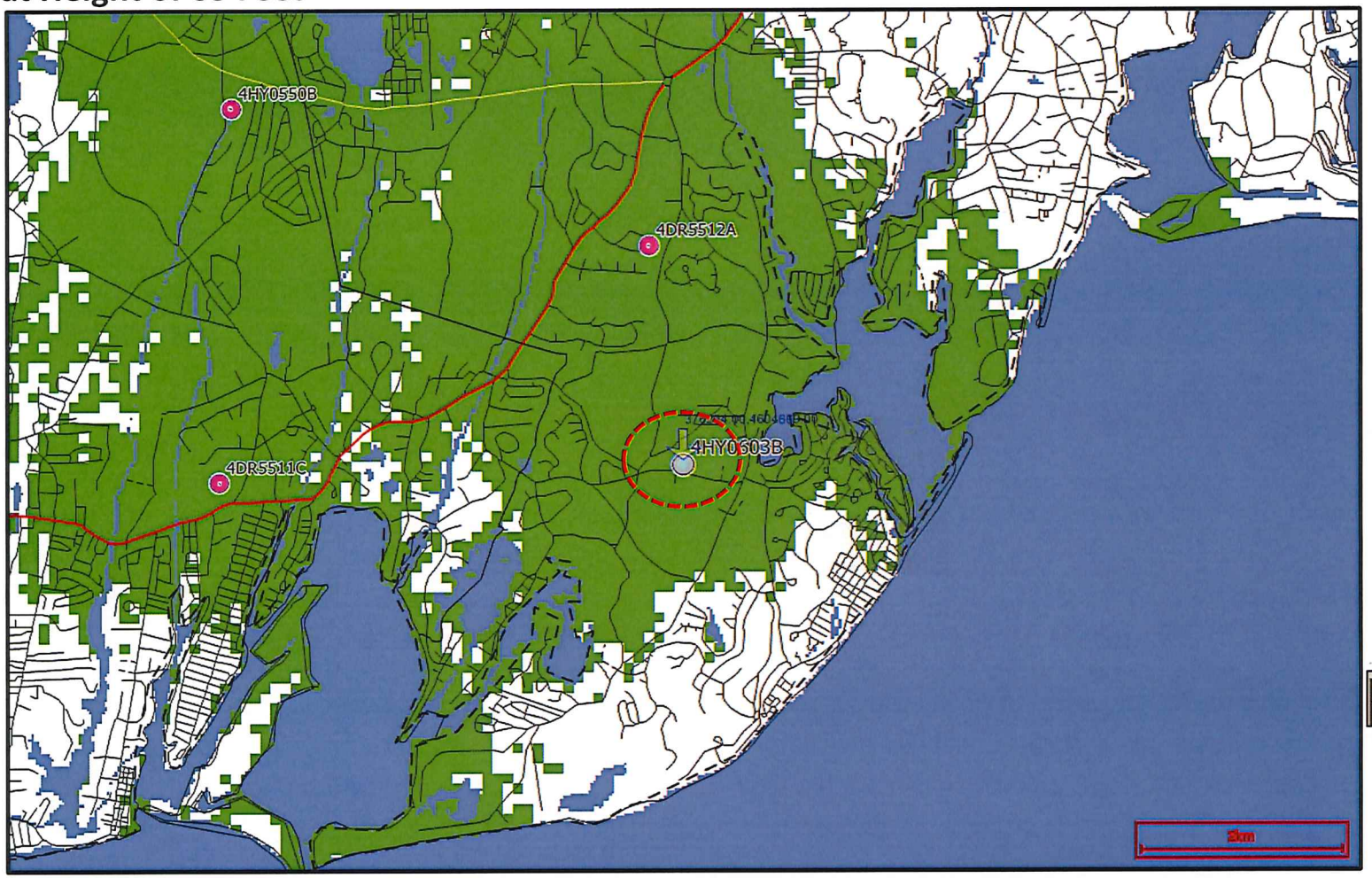
Minimum	Maximum	Label	Colour
-97	0	In-Building	

9/5/18

Propose LTE 700 MHz Coverage with Primary Candidate at 101 Red Brook Road, Mashpee, MA at Height of 85 Feet



Existing T-Mobile On-Air Site

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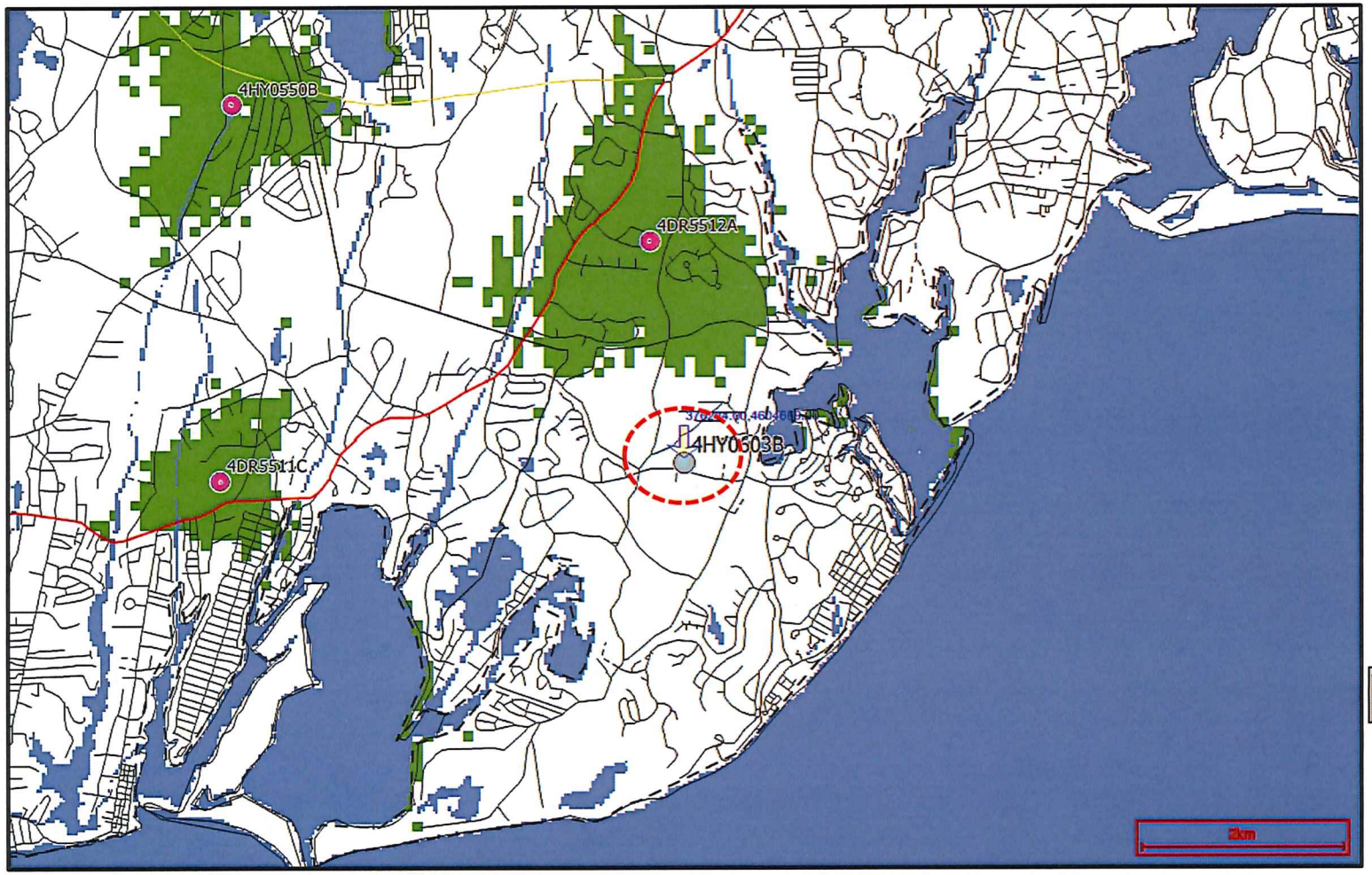
    - Line 1
- Secondary_Road
  - Line
    - Line 1
- Neighborhood_Road
  - Line
    - Line 1

Minimum	Maximum	Label	Colour
-97	0	In-Building	

Existing LTE L2100 MHz Coverage in Mashpee, MA



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-97	0	In-Building	

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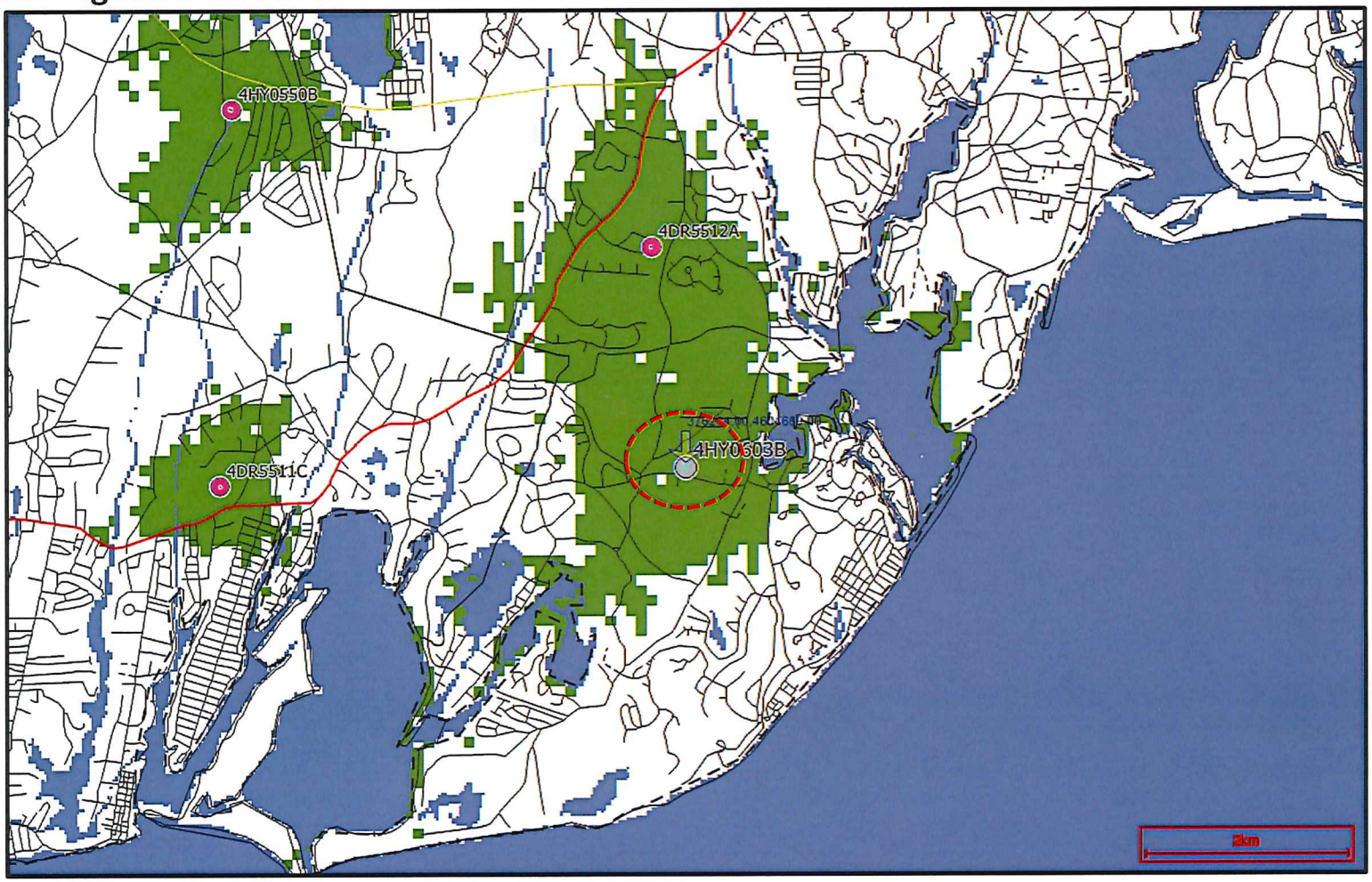

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9/5/18

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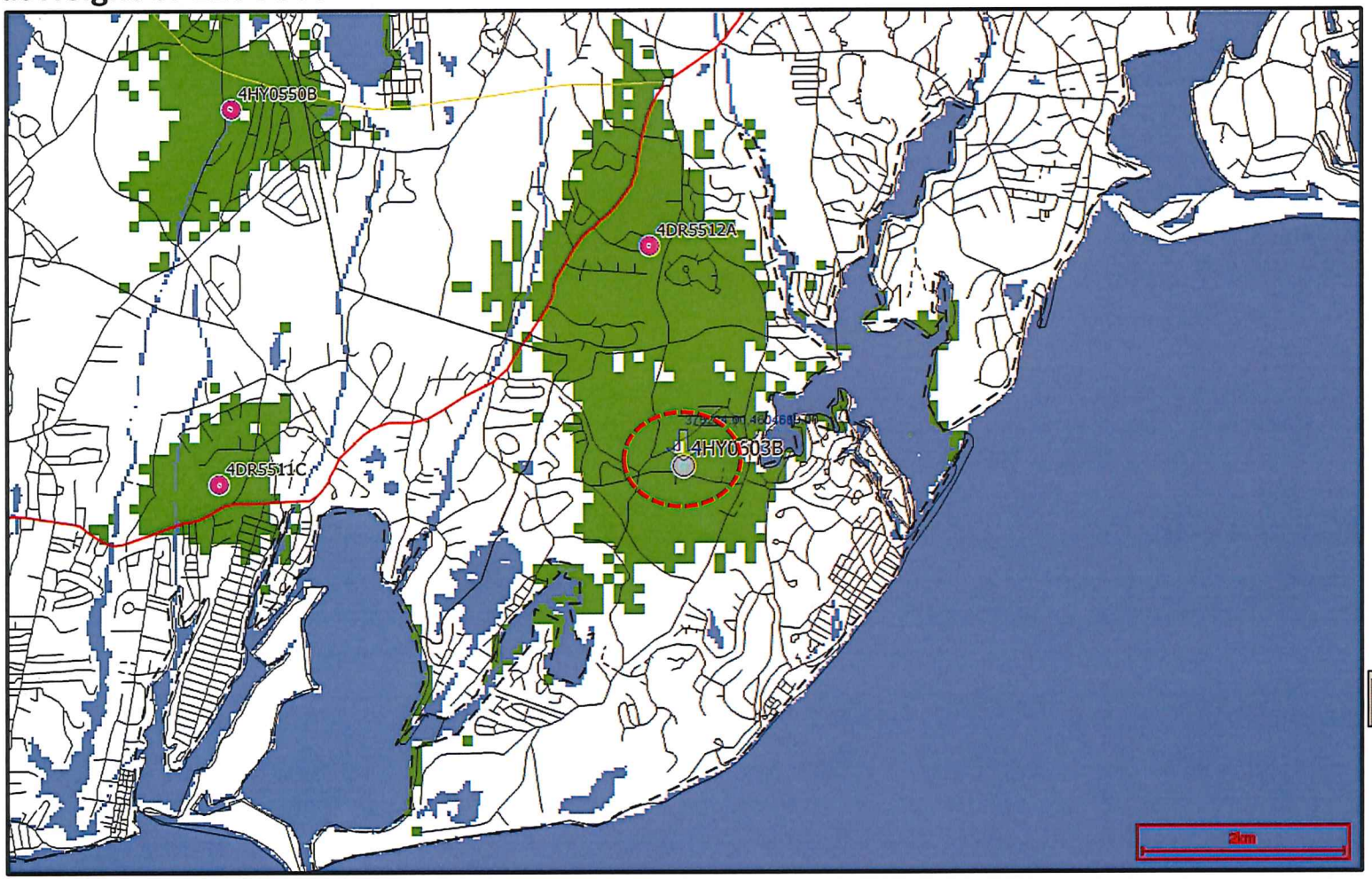

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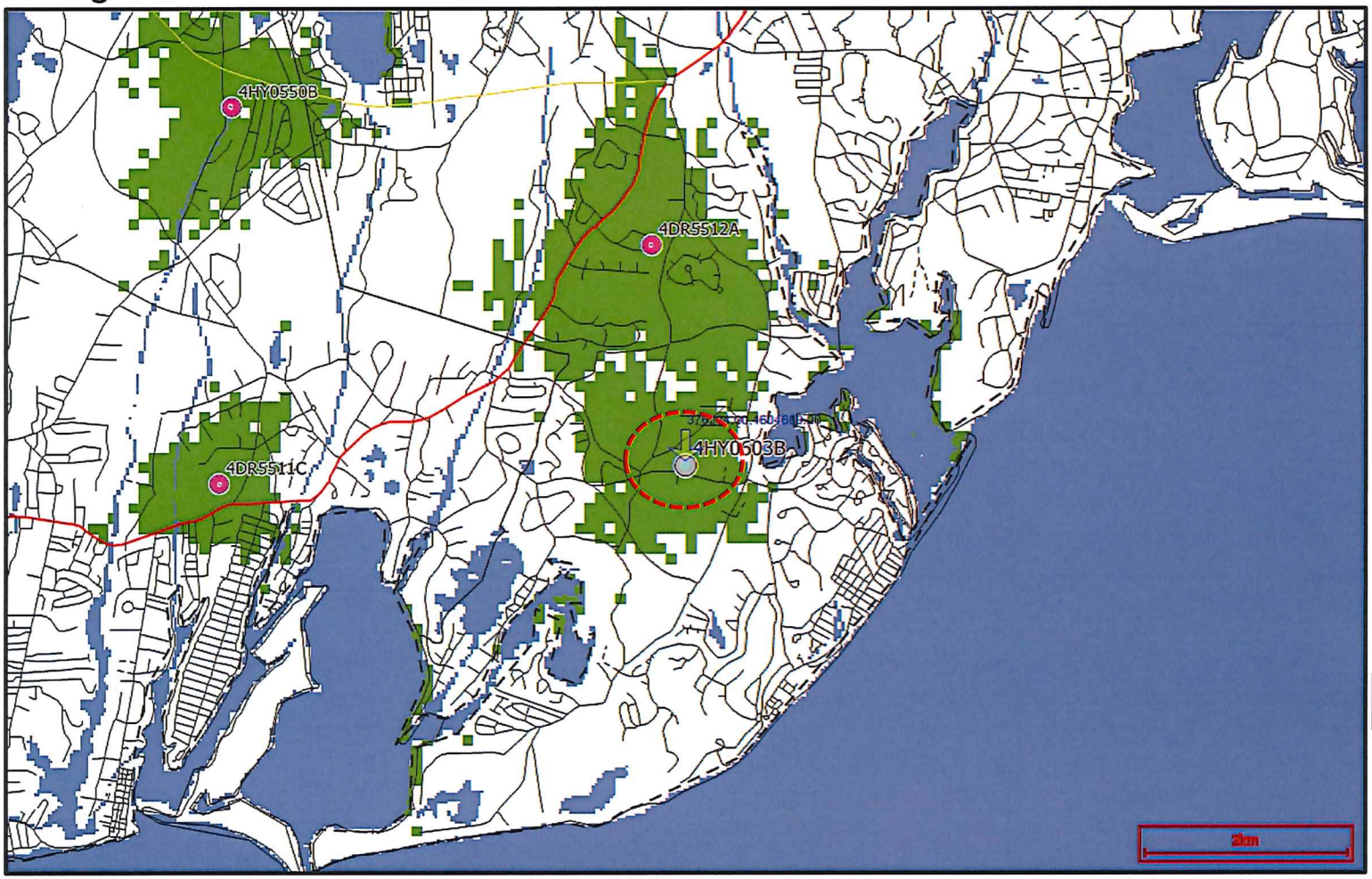

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