

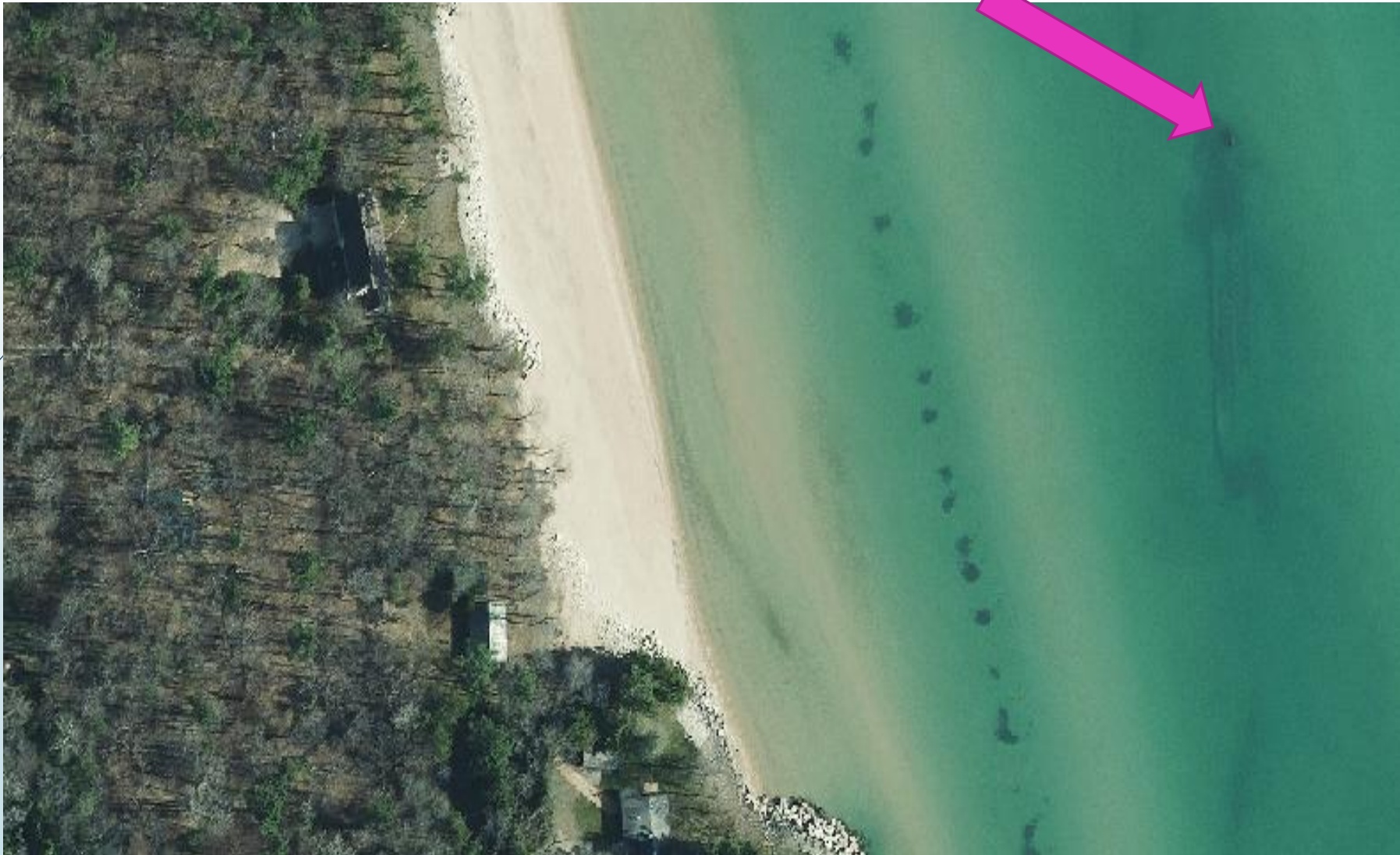
# Manitowoc County Lake Michigan Revetment Projects

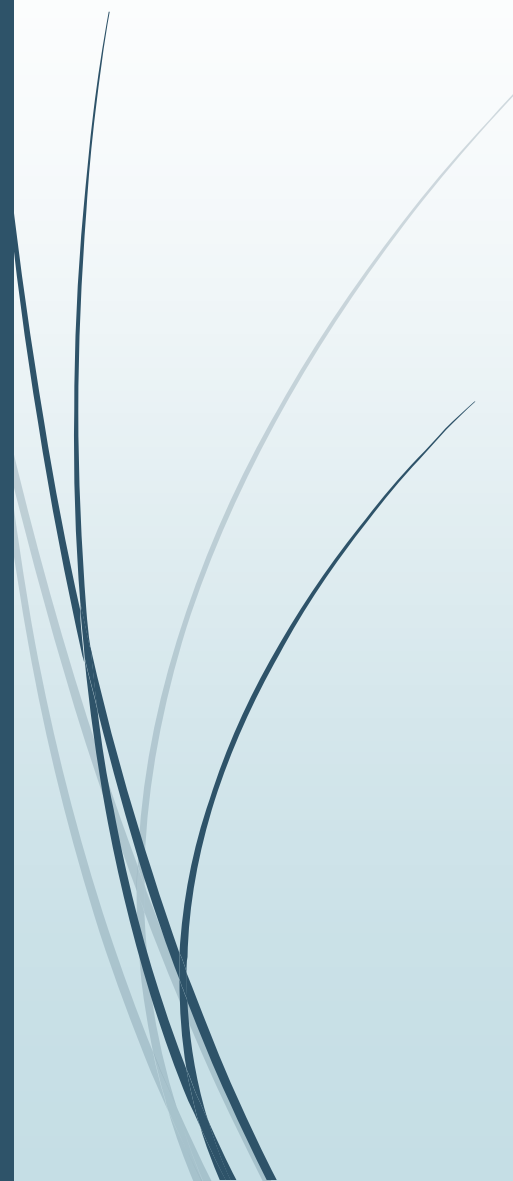
By

Kathi Kramasz – WDNR

Reed Gaedtke – Manitowoc County Planning and Zoning Dept.

What is that?

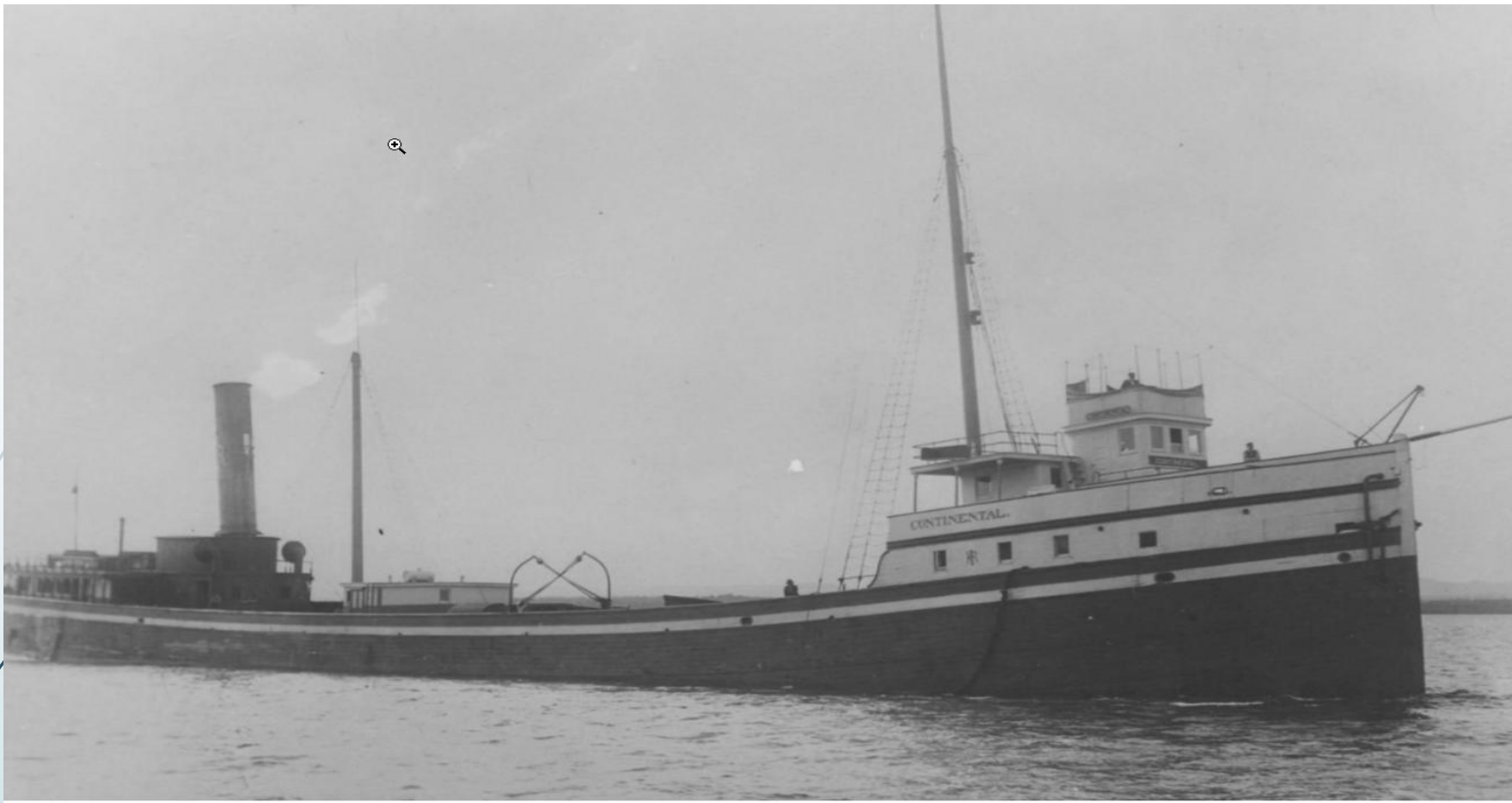




Smoke Stack

238'

33.4'



SS Continental built in 1882.

Sunk during a snow storm on 12/12/1904.

Headed back to port in Manitowoc for the winter.

Normally carried coal and iron ore but was mostly empty.

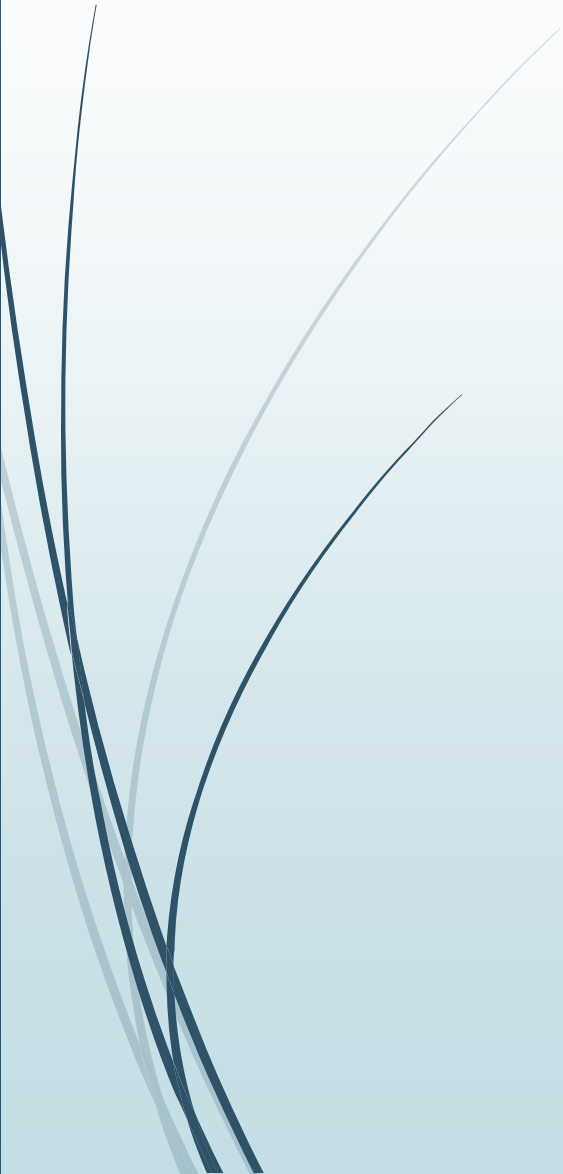
244' long x 36' wide

Sits in 14' of water about 550 feet off shore, north of Point Beach State Park.

# What is a Revetment?



A revetment in stream restoration, river engineering or coastal engineering is a facing of impact-resistant material applied to a bank or wall in order to absorb the energy of incoming water and protect it from erosion.



# McHugh Brothers (900' of Shoreline)



McHugh's property is next to a Town park that has riprap. Erosion difference is about 148'.







11.16.2016 11:51



11.16.2016 11:51

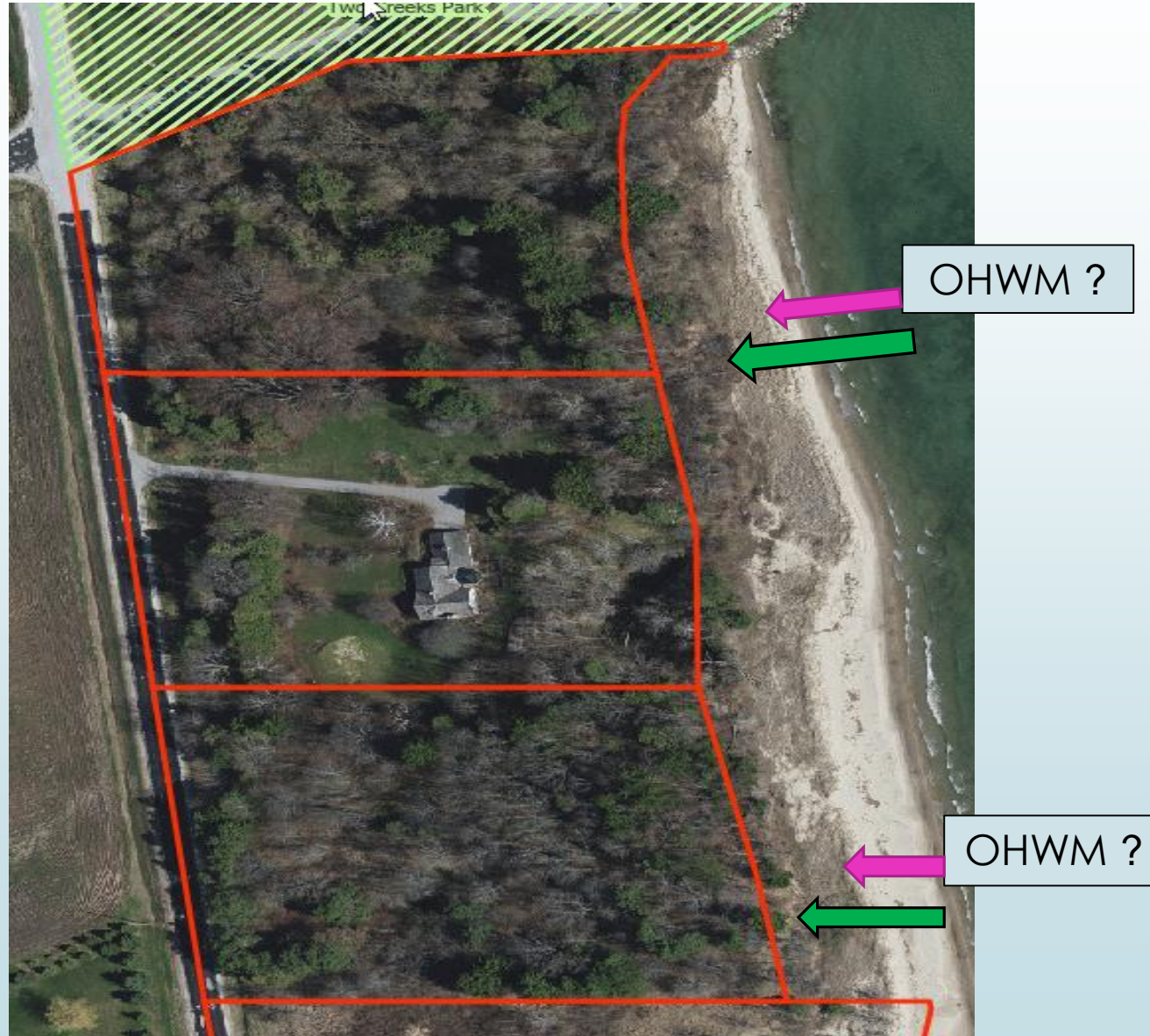
# 2010 McHugh



# What is the OHWM?

- The OHWM is the point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation or other easily recognized characteristic. *Diana Shooting Club v. Husting*, 156 Wis. 261, 272, 145 N.W. 816 (1914).

# 2014 McHugh



# 2017 McHugh



# 2020 McHugh



2014



2020



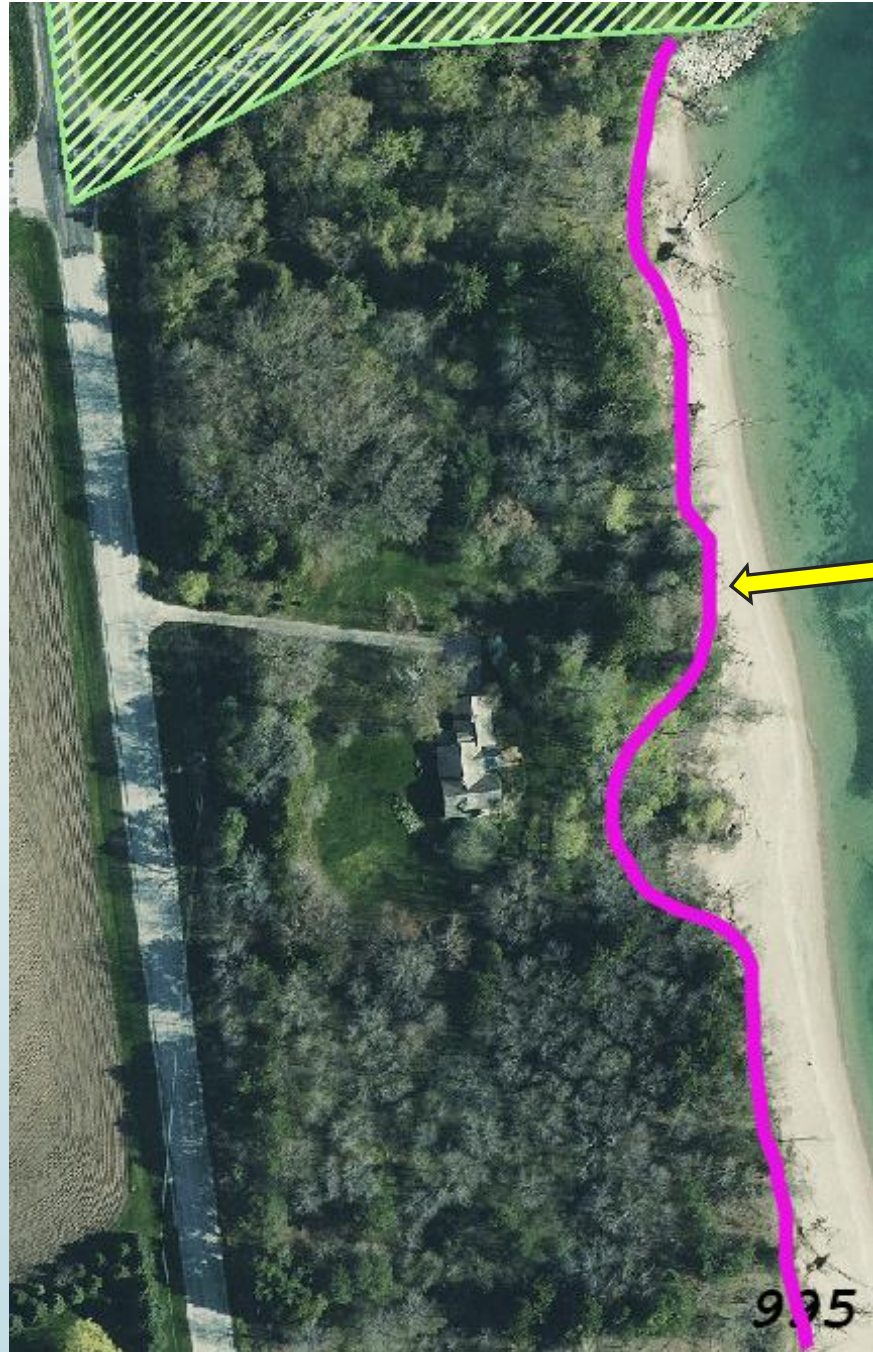


# 2023 McHugh



Lost 66 feet of shoreline in 6 years.

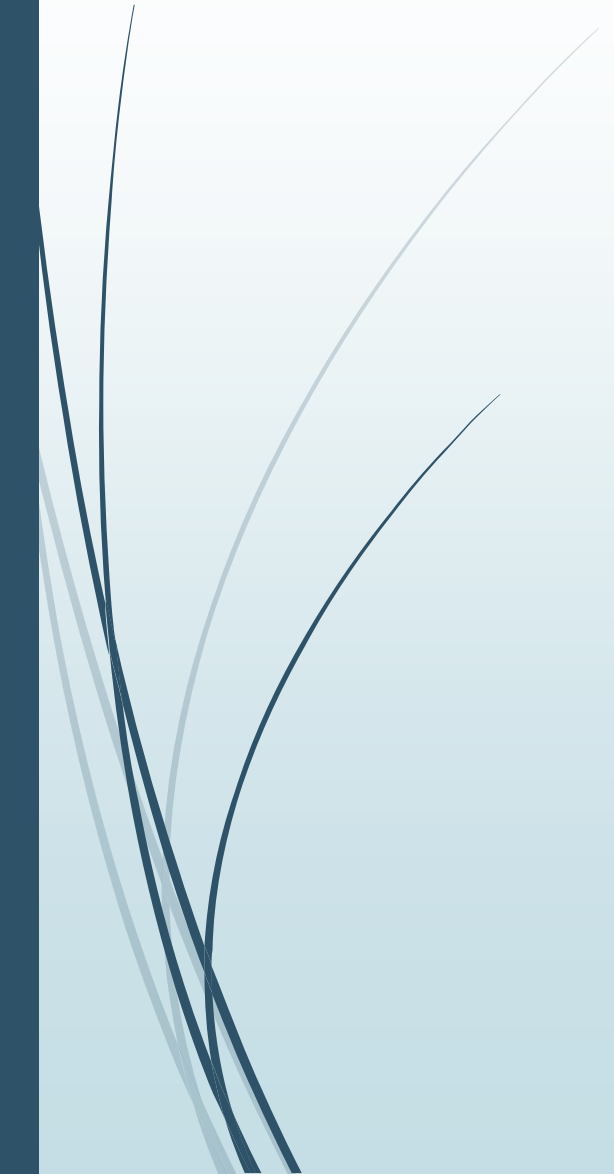
2023 McHugh  
over 900'



Proposed Revetment  
Location



# Mansukahani Property



(700' of Shoreline)



# 2010 Mansukahani



# 2014 Mansukahani



Constructed a new type of stairs in 2016 that conforms to erosion.







11.16.2016 11:36

# Mansukahani Beach



11.16.2016 11:35

# 2017 Mansukahani



2017 Width of Bluff in Red.  
2023 width of Bluff in Pink.



47' of bluff.

2020 they are down to 31'.

2017



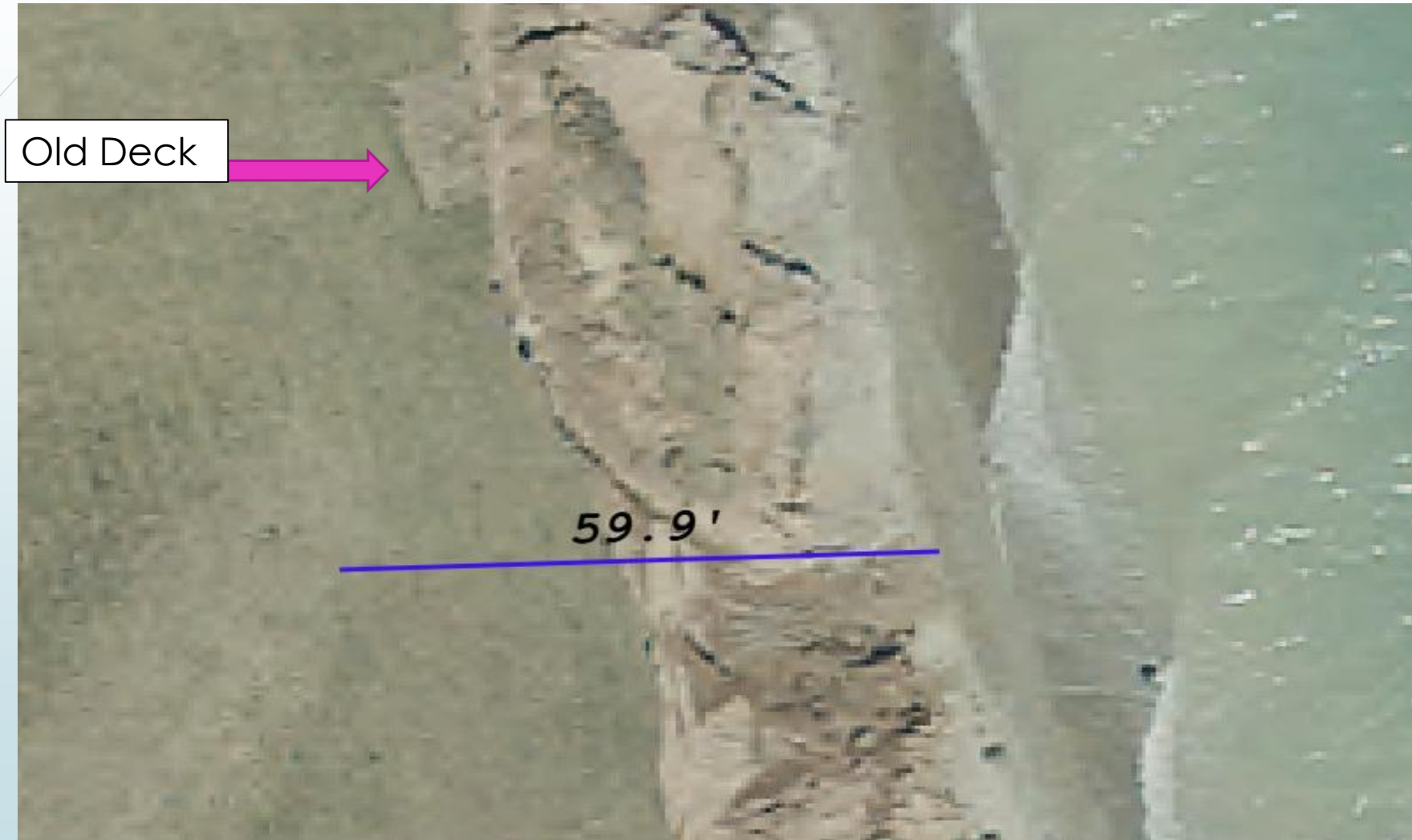
# 2020 Mansukahani



# 2020 Mansukahani



# Mansukahani 2020



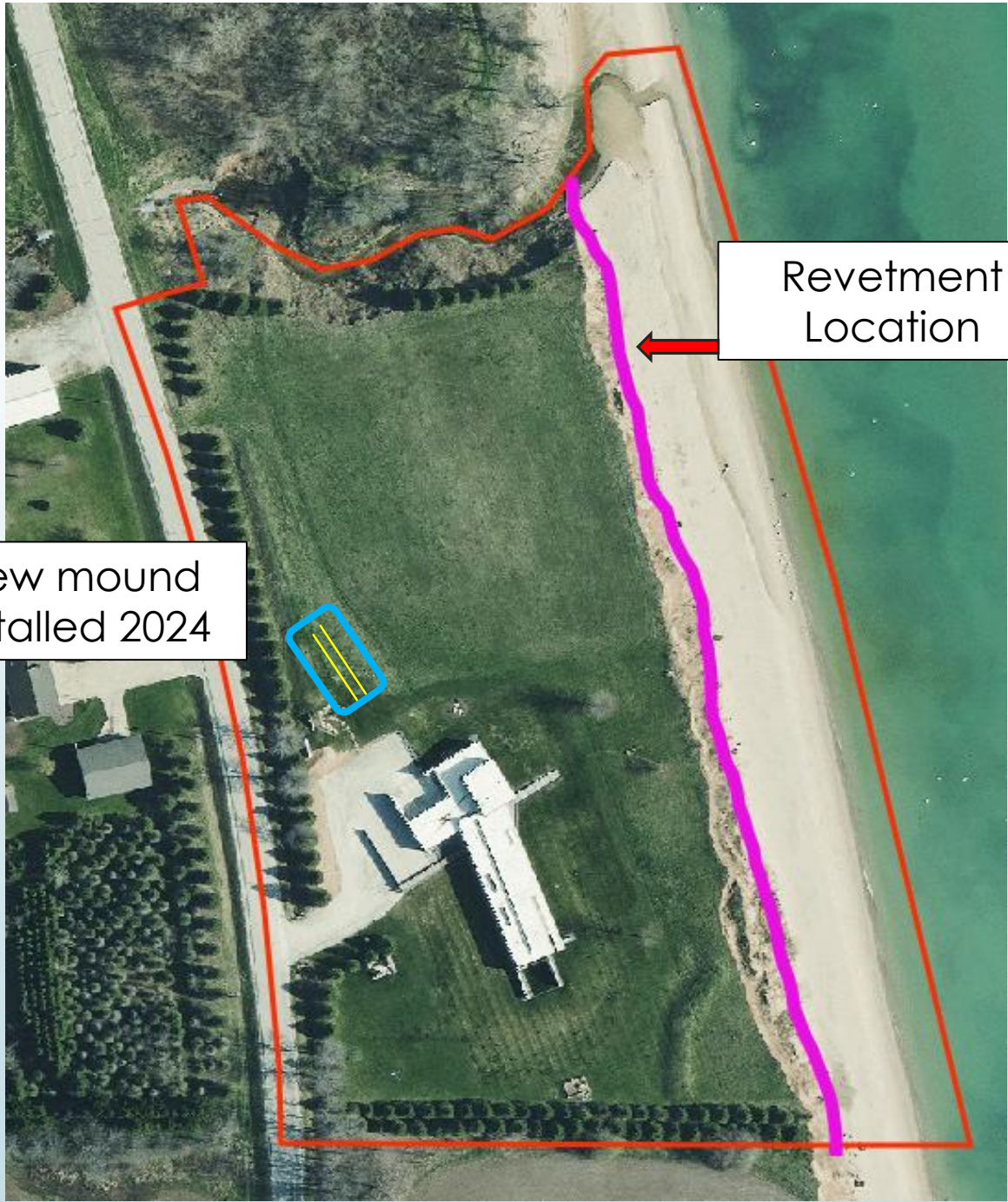


# 2023 Mansukahani



# 2023 Mansukahani





Revetment  
Location

New mound  
installed 2024

