

Ottawa County Water Quality Forum

Resilient Grand Haven

2016 Master Plan: Resilient Grand Haven

- Resiliency – the ability of a community to bounce back from an economic, social, or environmental hardship
- Joint effort between City of Grand Haven and Grand Haven Charter Township
- Vulnerability analysis
- Updated goals and objectives
- Consideration for youth and elderly residents



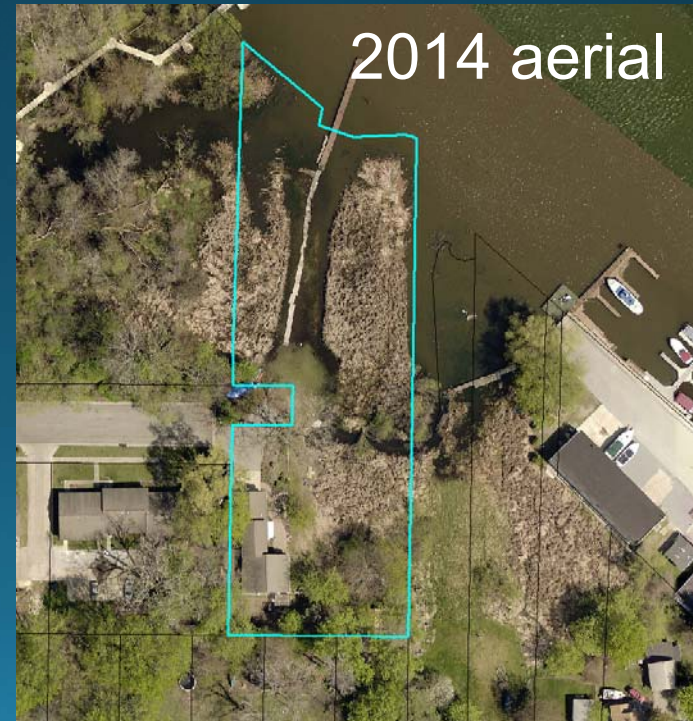
Implementing the Plan

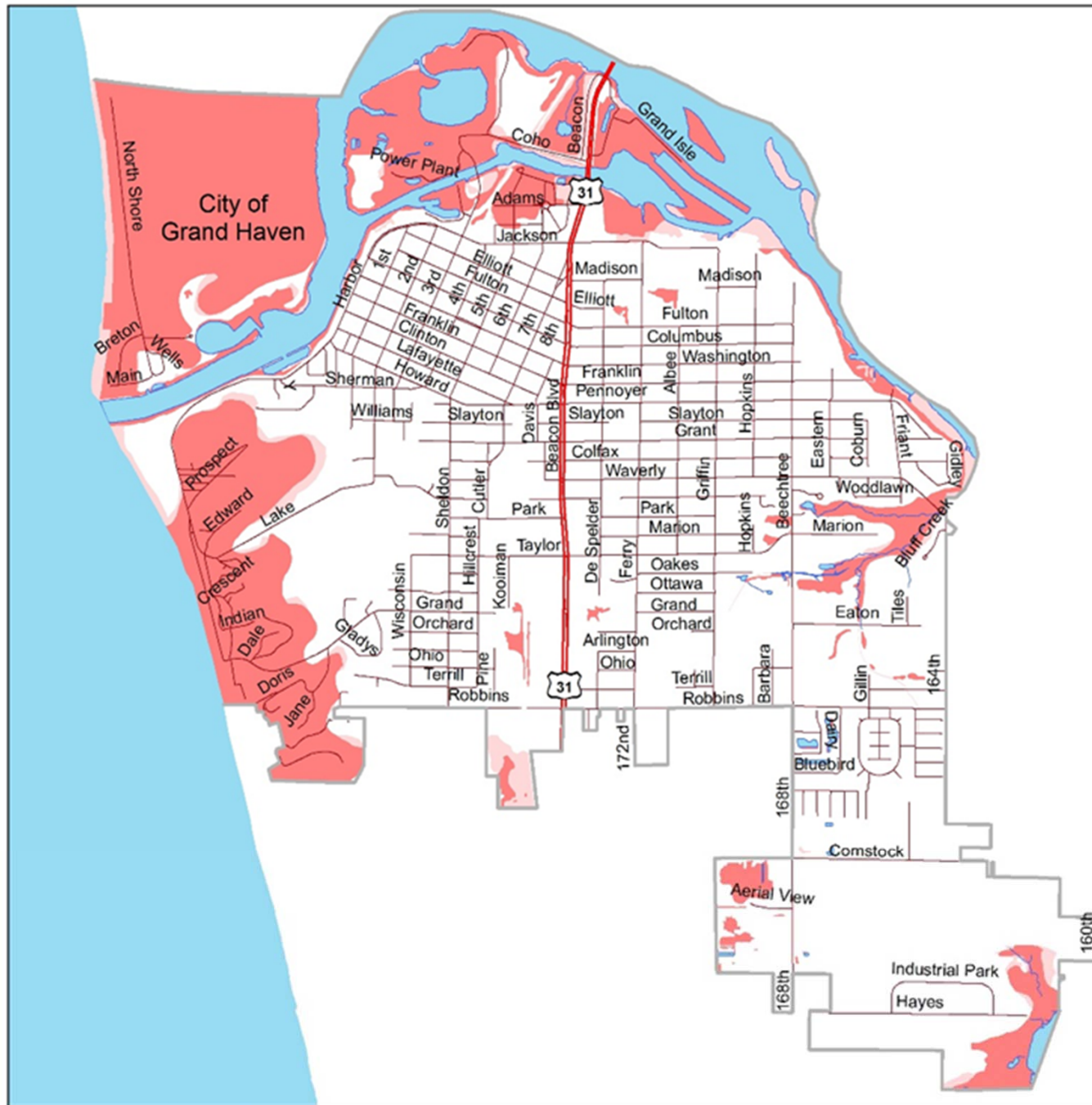
- Update the City's Sensitive Areas Overlay District
- Develop and implement shoreline standards
- Develop best management practices plan to provide educational information to homeowners living within sensitive landscapes



Sensitive Areas Overlay District

- Updated boundary to reflect latest critical dune, wetlands, and floodplain data
- Added wetlands of less than 5 acres in size
- Clarified plan review standards





Sensitive Areas Comparison

- Sensitive Areas (City)
- Sensitive Areas (LIAA)
- Jurisdiction Boundary
- Highways
- Roads
- Lakes
- Streams

The following layers were used to create the Sensitive Areas layer:

- 1) FEMA 100 year Floodplain
- 2) Water body or watercourse under the Natural Resources and Environmental Protection Act (Act 451 of 1994)
- 3) Wetlands (from Field Survey by Resource Management Group, November 1997.
- 4) Critical Dune Areas

The following layers were used to create the Sensitive Areas layer:

- 1) FEMA 100 year Floodplain
- 2) Water body or watercourse under the Natural Resources and Environmental Protection Act (Act 451 of 1994)
- 3) Wetlands (from NWI)
- 4) Critical Dune Areas

0 0.75 Miles

Data Sources:
Michigan Geo. Data Library,
City of Grand Haven GIS,
Ottawa County GIS



Prepared November 2017 by:



Beach Overlay District

- Prevent damage to private property
- Prevent damage to the public trust shorelands (the beach we all walk along)
- Preserve the character of the public trust shorelands
- Prohibit installation of shoreline protection measures except for temporary fencing



1970

1974

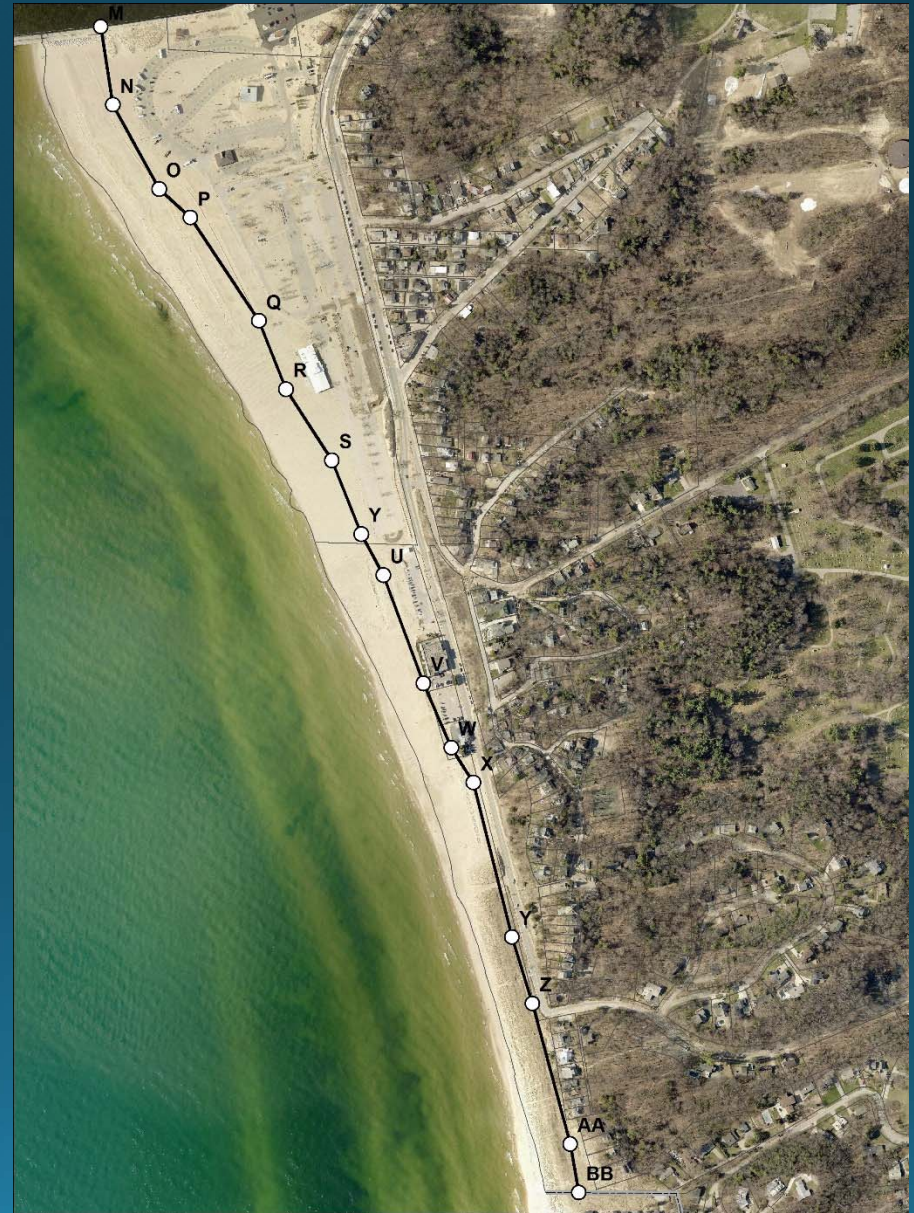
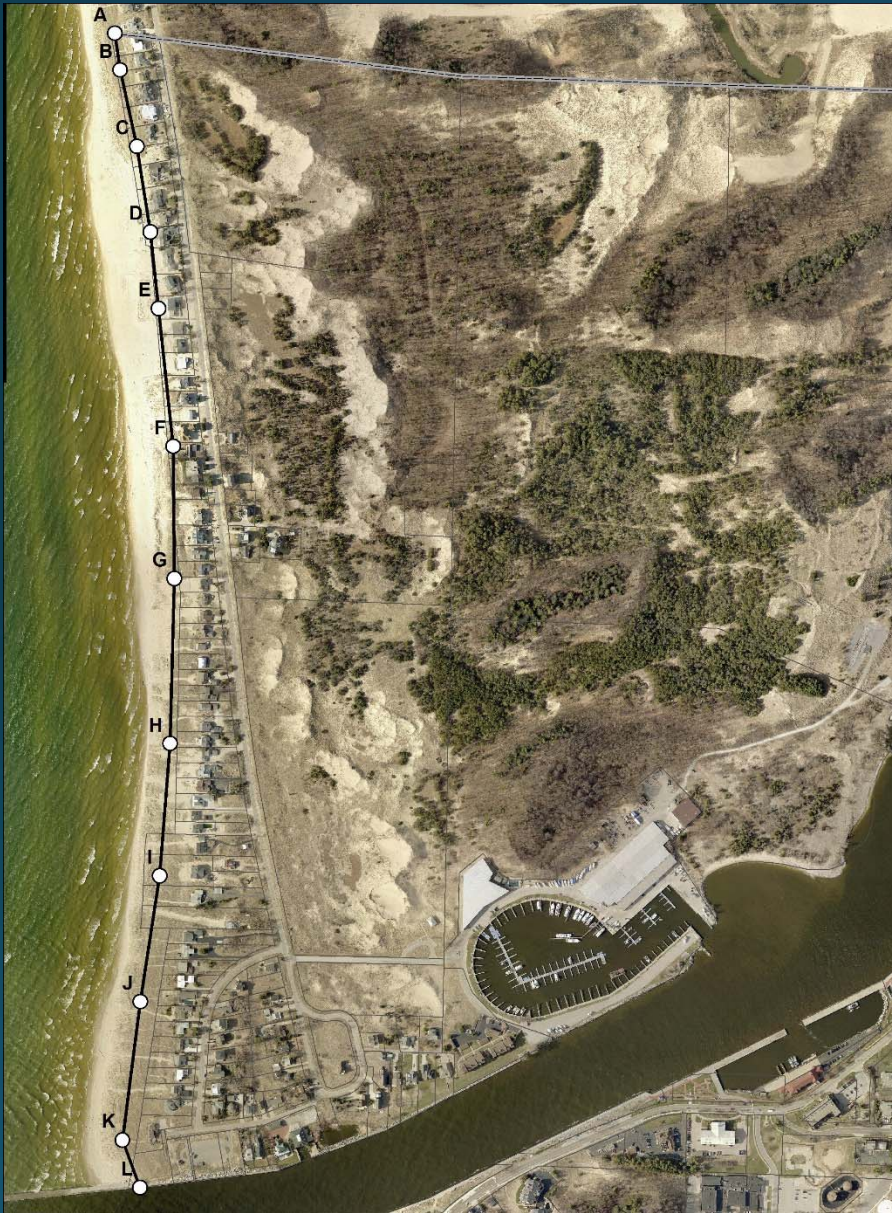
1986

1998

2014



50-year flood elevation + 60-year recession distance



Homeowners Guidebook

- Four Key Areas
 1. Living Along the Coast
 2. Living in the Dunes
 3. Living in the Floodplain
 4. Living Near Wetlands
- Simple Best Practices
- Explains the science and data behind our new regulations

