

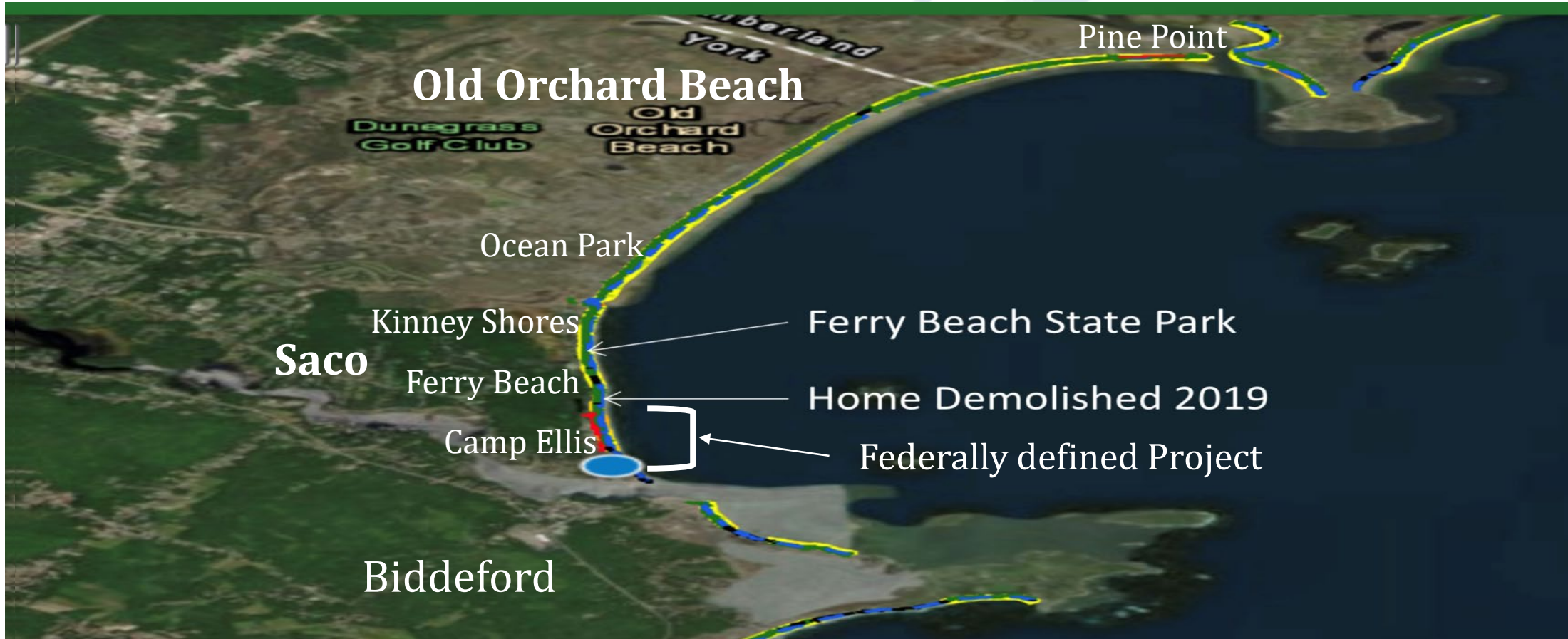
CITY OF

Saco Saco Bay Erosion Mitigation Caused by the Camp Ellis Jetty

October 15, 2019

friendly by nature

Saco Bay



Camp Ellis Erosion



Camp Ellis to Pine Point – Bay Issues



2003 to 2019 Erosion Ferry Beach

Dune Shoreline Positions along Ferry Beach, Saco (2003-2019)

Survey_Year	Color
2003	Light Green
2005	Green
2006	Light Green
2007	Light Green
2008	Light Green
2009	Light Green
2010	Light Green
2011	Light Green
2012	Yellow
2013	Yellow
2014	Yellow
2015	Yellow
2016	Yellow
2017	Yellow
2018	Yellow
2019	Red



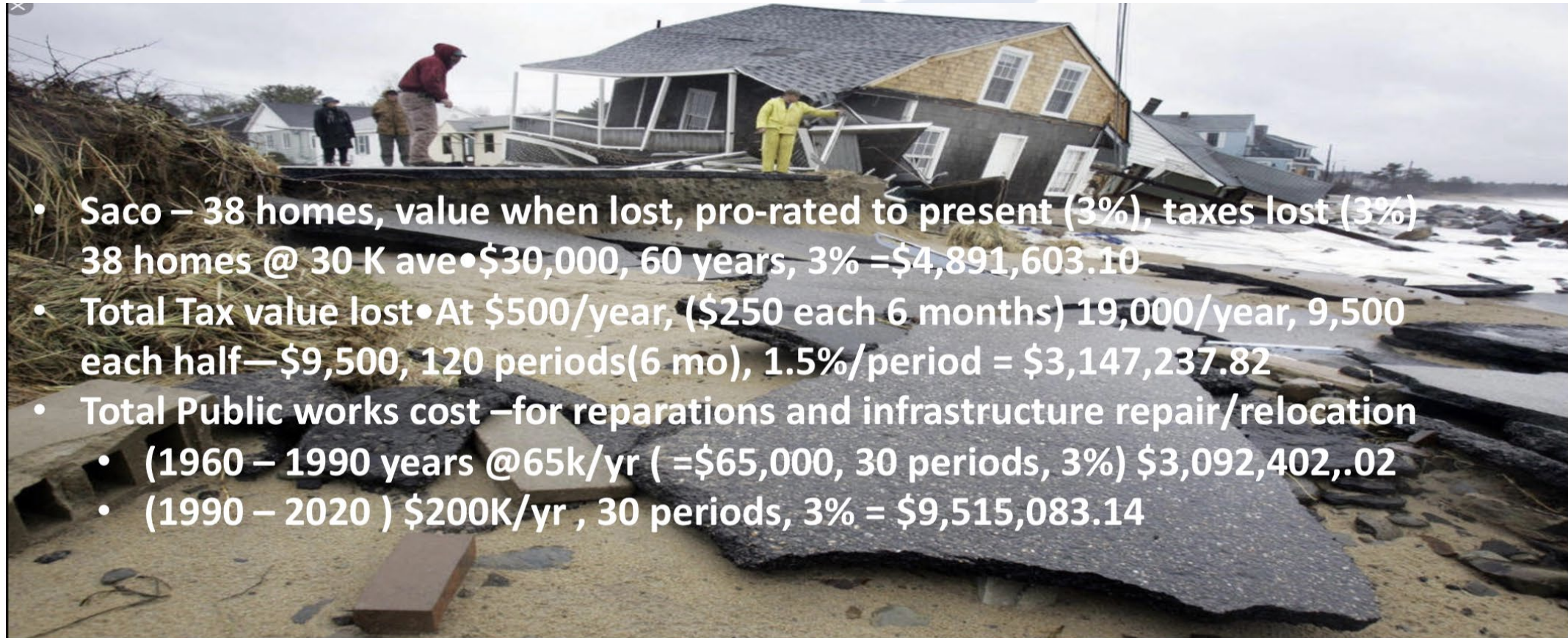
Figure 1. Dune shorelines along Ferry Beach, Saco from 2003 to 2019 show that the seaward dune edge eroded approximately 67 feet (Arrow A), a rate of -4.2 feet/year. The southern tip of the dune migrated northwards about 321 feet (Arrow B), a rate of about 20 feet/year. 2003 shoreline position from aerial photo interpretation. 2005-2019 shoreline positions from the MGS Maine Beach Mapping Program. 2018 NAIP Base Imagery.



From: Maine Geological



Saco Total Financial Losses 1960 – 2020 \$20,646,326



- Saco – 38 homes, value when lost, pro-rated to present (3%), taxes lost (3%)
38 homes @ 30 K ave • \$30,000, 60 years, 3% = \$4,891,603.10
- Total Tax value lost • At \$500/year, (\$250 each 6 months) 19,000/year, 9,500 each half — \$9,500, 120 periods (6 mo), 1.5%/period = \$3,147,237.82
- Total Public works cost – for reparations and infrastructure repair/relocation
 - (1960 – 1990 years @ 65k/yr (= \$65,000, 30 periods, 3%) \$3,092,402,.02
 - (1990 – 2020) \$200K/yr , 30 periods, 3% = \$9,515,083.14

Deseret News

Maine seaside village seeks solution to erosion - Deseret News

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Property Value Lost/In Harms Way

- **Saco Bay Frontage Property Value :**

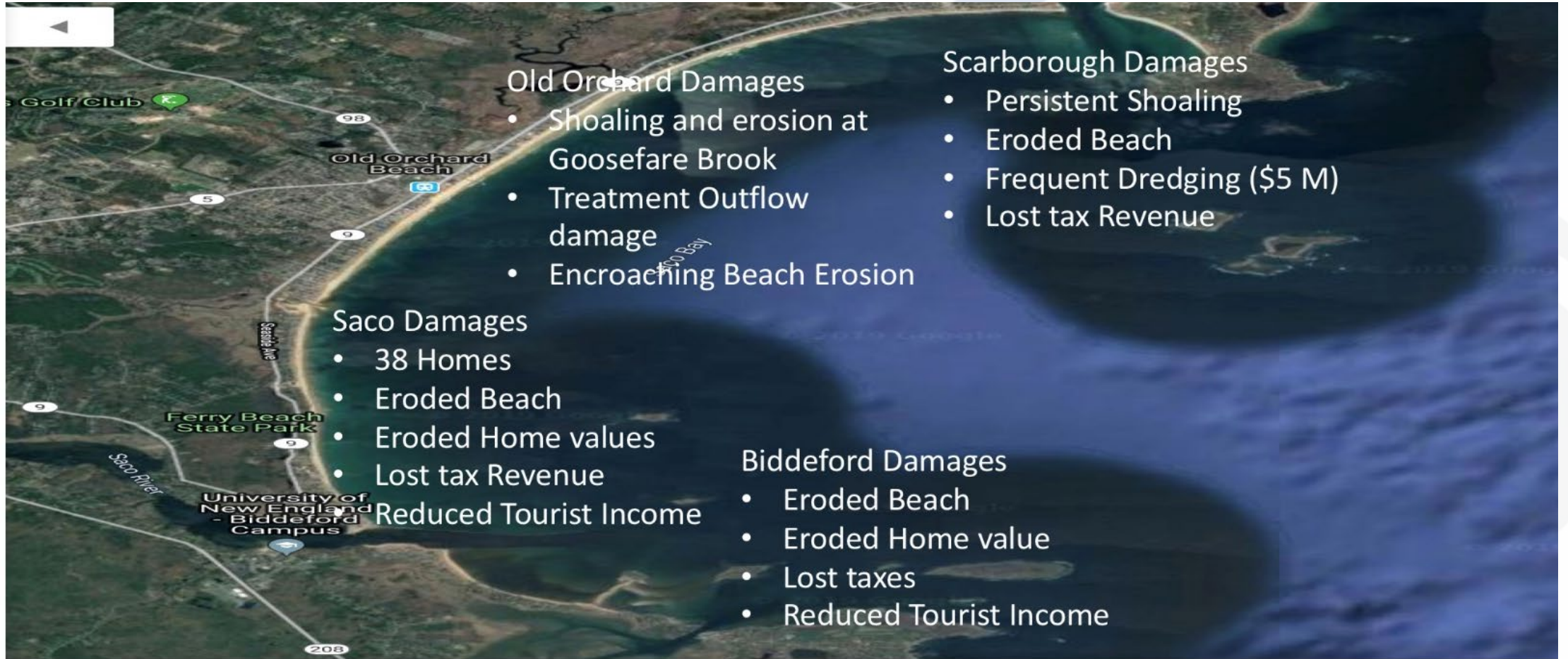
- Biddeford (Hills Beach Area)– \$xxx,xxx,xxx
- Old Orchard / Ocean Park - \$xxx,xxx,xxx
- Saco (Camp Ellis, Ferry Beach, Bay View, Kinney Shores)- \$20,646,000
- Scarborough- (Grand Beach Area, Pine Point, Ferry Beach) - \$1,000,000 per year



OOB / Scarborough Impacts

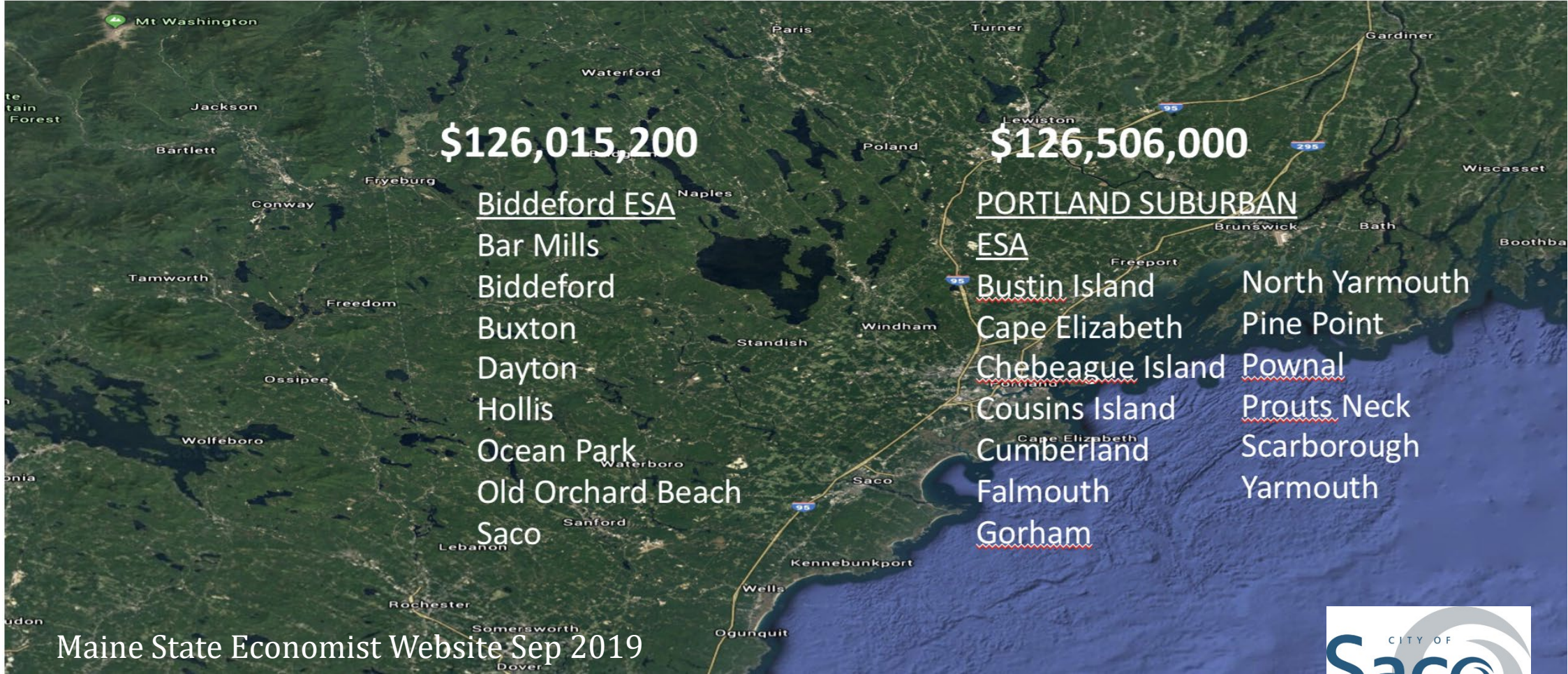
- 2006 to 2017 the neutral point of erosion moved 1 mile, Bay View to Kinney Shores
- At the current rate, erosion will hit the OOB pier in 2039, and the beaches south of the pier will be eroded
 - Significant loss of beach in Ocean Park, property and tourist revenue
 - Losses increase with distance south of the pier
 - OOB sewer line will be subjected to wave damage and require maintenance
 - Goosefare Brook will suffer repeated closures resulting in wildlife damage and reduction
 - Rachel Carson Reserve ecology will be severely impacted
 - Eroded sands will clog the Nonesuch River causing harbor deterioration, more frequent dredging and ecological changes to the largest salt marsh in Maine

Saco Bay Damages



Tourist Revenue Economic Summary

Areas Combined 2018 - \$252,521,200



Maine State Economist Website Sep 2019



Three Approaches to Saco Bay Erosion Resolution

- **City of Saco Plan**

Partnership Among:

- **Saco Shoreline Commission – liaison to Saco Bay Communities and Grassroots organizations**
- **Maine Senators**
- **Maine Representatives**
- **Maine Governor**
- **Federal Senators**
- **Federal Representatives**

- **Legal Action**

- **Beach Front property owners legal action for beach damages**

- **SOS Saco Bay**

- **Grassroots support from citizens of Saco Bay Communities**



Build Legislative Support Biddeford, Old Orchard, Saco & Scarborough

State Senators

- **Justin Chenette (Saco & Old Orchard)**
- **Susan Deschambault (Biddeford)**
- **Linda Sanborn (Scarborough)**

State Representatives

- **Shawn Babine (Scarborough)**
- **Donna Bailey (Saco)**
- **Christopher Caiazzo (Scarborough)**
- **Ryan Fecteau (Biddeford)**
- **Victoria Foley (Biddeford)**
- **Lori Gramlich (Old Orchard)**
- **Donald Marean (Hollis & Saco)**
- **Margaret O'Neil (Saco)**

Create Regional Erosion Working Group Team Members and Advisors

- **Biddeford Public Representative**
- **Old Orchard Public Representative**
- **Saco Public Representative**
- **Scarborough Public Representative**
- **Local State Senators / Local State Representatives**
- **UNE Marine Scientists / Oceanographers / Researchers**
- **Southern Maine Planning and Development Commission**



State / Federal Involvement

- **Introduce State Officials to the economic severity of Saco bay erosion**
 - **Expansion of USACOE responsibility from 2500 feet to the full beachfront**
 - **Describe proposed Federal Implementable Plan**
 - **Upgrade resolution to address full bay issues**
 - **Provide estimate for complete erosion resolution**
 - **Withdrawal of responsibility**
 - **Congressional actions**



Regional Goals – Beach Erosion Reduction and Restoration

State of Maine

- **Improve/Restore Ferry Beach Park**
- **Maintain Beach Front**
- **Maintain Tourist Income**

Biddeford

- **Biddeford Crossing Tourist Income**
- **Local Restaurants**

Old Orchard

- **Minimize Outflow Damage**
- **Minimize Tourist Impact**
- **Maintain Property Value**
- **Maintain Beach Front**

Saco

- **Resolve/Reduce Erosion**
- **Halt/Reduce Property Damage/Loss**
- **Maintain/Improve Property Values**
- **Regain/Maintain Beach Front**

Scarborough

- **Resolve/improve Erosion**
- **Resolve/Decrease Shoaling**
- **Reduce Dredging Frequency**
- **Halt/Reduce Ecological Encroachment**

Projected Project Timeline

Oct 2019

- Saco City Council Approval

Nov 2019

- Biddeford City Council Approval
- Old Orchard City Council Approval
- Scarborough City Council Approval

Dec 2019

- State Senators & Representatives support
- Federal Senators & Representatives

Jan / Feb 2020

- Formation of Saco Bay Regional Erosion Mitigation Team
- Identification of Team Members
 - Biddeford, Old Orchard, Saco & Scarborough
 - State Senators & Representatives
 - State Offices
 - Maine Geological, Planning, Conservation, & Tourism
 - University of New England
 - Southern Maine Regional Planning

Projected Project Timeline - continued

Mar 2020

- **First Regional Group Meeting**

April 2020

- **Briefing Consolidation for Governor**
- **Secure Appointment with Governor**

May 2020

- **Brief Governor on Saco Bay**

Jul 2020

- **Governor to brief Council Of Governors on Saco Bay Issues**

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