

An aerial photograph of a coastline, showing a wide sandy beach on the left, a narrow strip of land with buildings and roads in the middle, and a body of water on the right. The sky is clear and blue.

*MISQUAMICUT  
BEACH  
NOURISHMENT*

*A PILOT PROGRAM  
FOR RI BEACHES*

TOWN OF WESTERLY, RI  
OFFICE OF TOWN CLERK

Feb 27 2025

RECEIVED  
Mary L. LeBlanc, MMC  
Town Clerk



# *AGENDA*

- The Problem
- The History
- Who does this affect?
- Video
- Call for Action



*THE PROBLEMS:*

*SEA LEVEL RISE  
CLIMATE CHANGE  
BARRIER BEACH  
FREQUENT STORMS  
PUBLIC ACCESS*



# *STORMS AND EROSION*

- We lose shoreline each year even in a normal winter
- Barrier beaches want to move
- Hurricanes and Super Storms ravage the beach and infrastructure
- Now even a regular Nor' Easter or wind and rain event causes hurricane like damage and flooding
- Insurance is hard to get and very expensive

# MISQUAMICUT BEACH, RHODE ISLAND



way2retire



# *MITIGATION HAS BEEN HAPHAZARD*

**DREDGE PROJECT OF POND ONLY PLACED SAND ON THE  
STATE BEACH WHICH PROVED INEFFECTIVE**

**RAISING OF STRUCTURES HELPS BUT IS NOT A LONG-  
TERM SOLUTION**

**NO PROPOSALS TAKE THE WHOLE STRETCH OF BEACH  
INTO ACCOUNT- IT IS ALL SEPARATE AND PIECEMEAL:  
STATE PORTIONS, FIRE DISTRICT PORTIONS, TOWN  
PORTIONS, BUSINESS PORTIONS AND RESIDENTIAL  
PORTIONS**



# Building Coastal Resiliency at Misquamicut Beach Report: Design Solutions for a Changing Landscape



LAR 445 Spring 2017  
Prepared by: Emily Condon  
Prepared for: Professor Richard Sheridan

**Misquamicut-Beach-Report**

## Pawcatuck River, Rhode Island Coastal Storm Risk Management Feasibility Study



**Final Integrated Feasibility Report  
& Environmental Assessment**

**February 2018**



U.S. Army Corps of Engineers  
North Atlantic Division  
New England District



# *FLOODING AND SAND DISPLACEMENT*



# *WHO DOES THIS AFFECT*

- Residents
- Businesses
- Public Access
- Westerly Taxpayers
- Local and State Economy
- Town & State Property
- Fire District



# *LOSS OF PARKING-LARGEST IN THE STATE*

- 2700 Parking spaces at State Beach alone
- 2000 additional parking spaces
- Nearly 5000 parking spaces at the beach, the largest in the state





## *WHAT WILL WE LOSE?*

- Vicinity of 9 million dollars annual in property taxes to the town
- Roughly 1500 seasonal jobs
- 50 businesses
- Approx 215 homes
- Town Beach & State Beach Pavilions
- Two trailer Parks
- Loss of millions in hotel and meals tax and State Beach parking that go to the Town and State
- Access

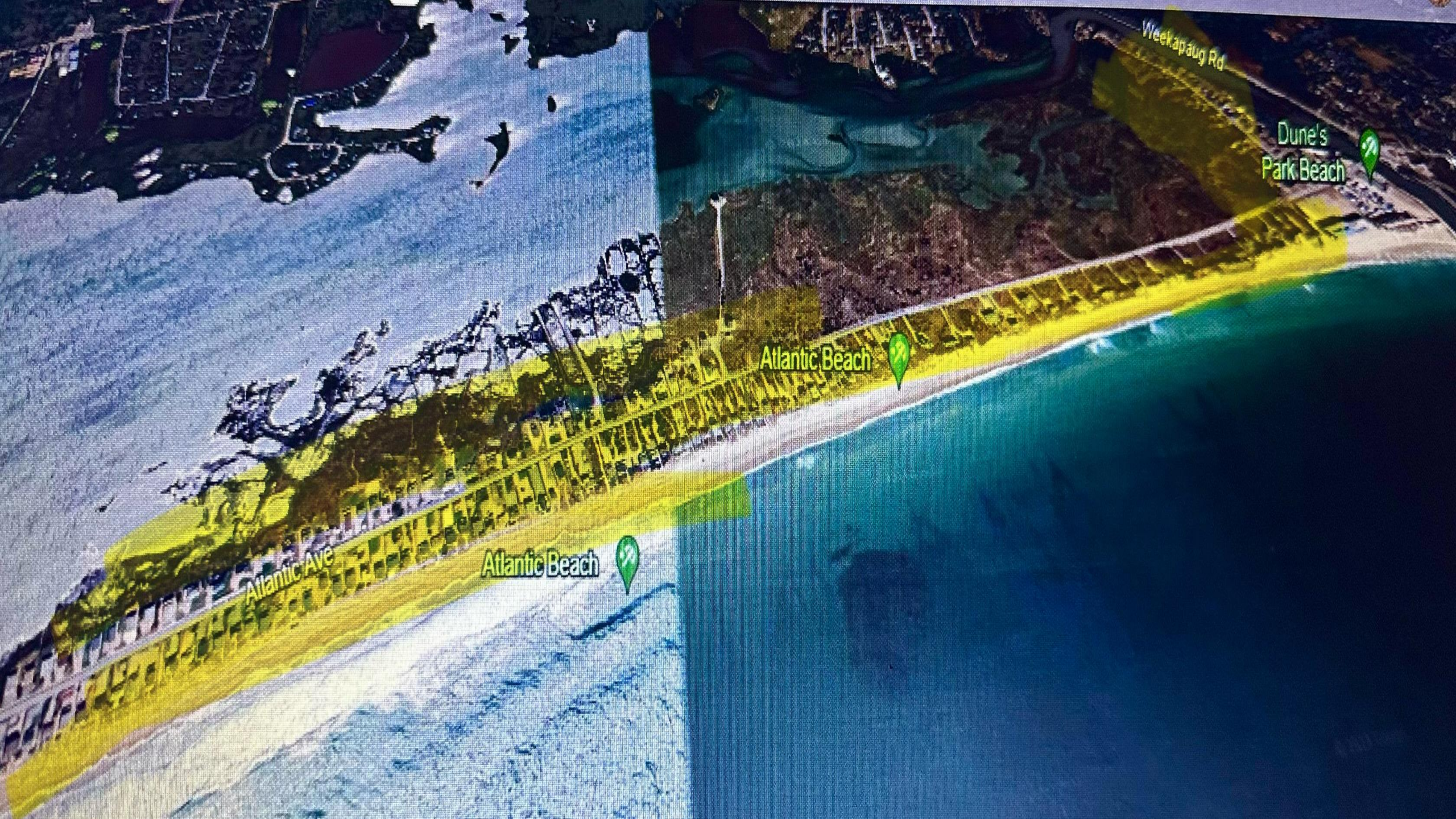
## *THE NUMBERS*

- Parking revenue 2.4 million per season
- 1.2 million of that is State Beach
- 10 million in hotel revenue
- 1 million in Hotel Tax shared by the town, state and tourism district
- 1.3 million in meals/beverage tax for Westerly of which Misquamicut is a major contributor
- 9.1 million in sales tax for Westerly from Restaurants of which Misquamicut is a major contributor
- Retail sales tax
- Gas tax



- Approx 1500 seasonal jobs
- 15 weeks equals \$13, 500,000 in gross wages
- Out of that approx. 1.41 million is federal and state taxes which includes Social security tax, Medicare tax, Federal and state unemployment tax





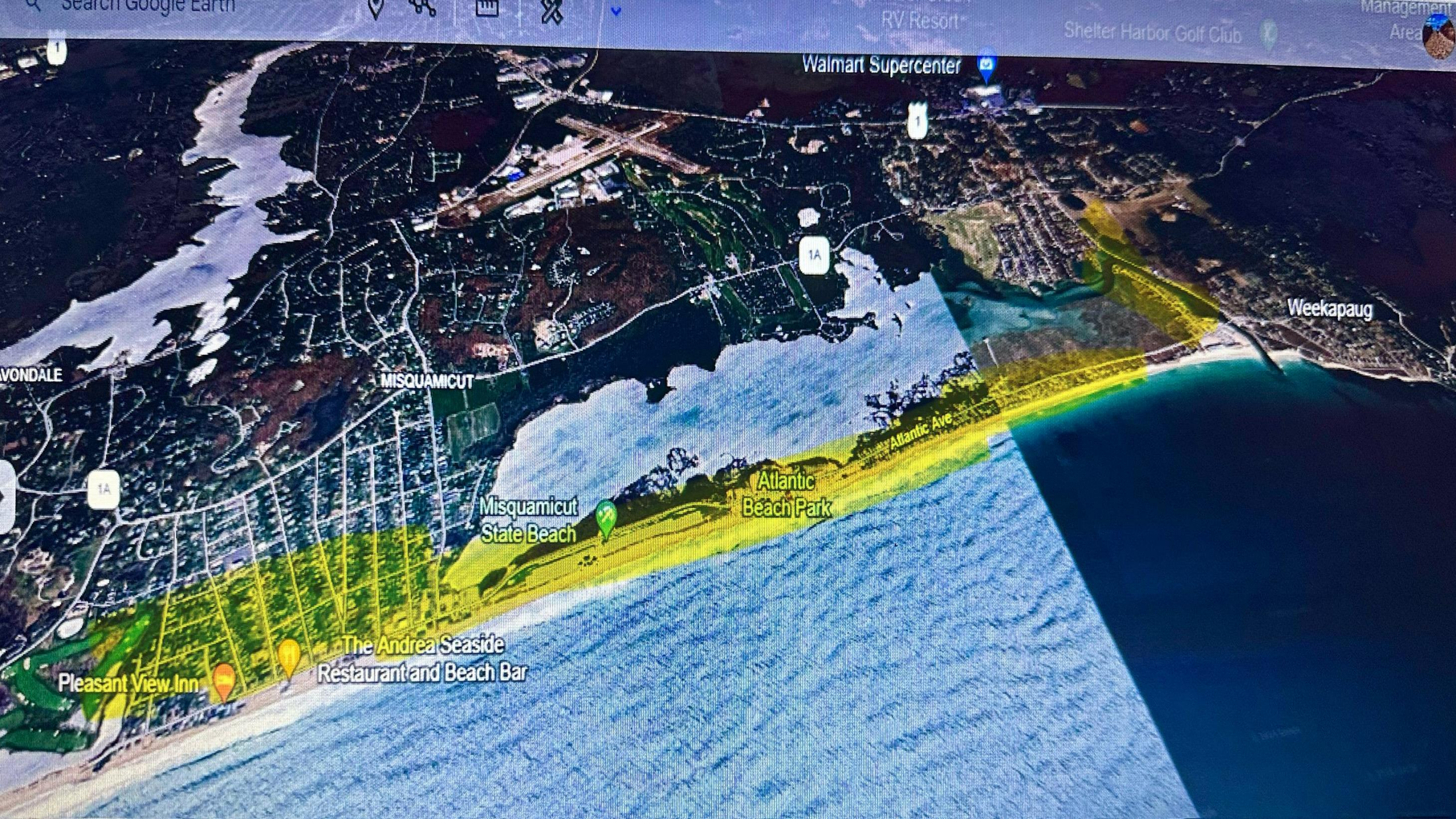
Atlantic Ave

Atlantic Beach

Atlantic Beach

Dune's  
Park Beach

Weekapaug Rd



Walmart Supercenter

Shelter Harbor Golf Club

Management Area

Weekapaug

MISQUAMICUT

Atlantic Beach Park

Misquamicut State Beach

The Andrea Seaside Restaurant and Beach Bar

Pleasant View Inn

VONDALE

1A

1A

1

Does anyone really care if the beach goes away?



No parking means NO

**PUBLIC  
BEACH  
ACCESS**



SOLUTIONS

# NOAA-National Oceanic and Atmospheric Administration

## National Beach Nourishment Database

This database features information on nearly 400 projects that have placed nearly 1.5 billion cubic yards of sand along the continental U.S. coastline. The database includes the number of nourishment events, oldest project, newest project, known total cost, total volume, and known length.

<https://coast.noaa.gov/digitalcoast/tools/beach-nourishment.html>

Projects in Long Island, Outer Banks, Virginia Beach, Florida, Alabama and many more



# *OFFSHORE DREDGING*



- These projects are designed to manage the risk of coastal storm damage along the Coast in a way that balances risks to human life and property, while maintaining, enhancing, and restoring ecosystem integrity and coastal biodiversity.

# SAND COLLECTOR

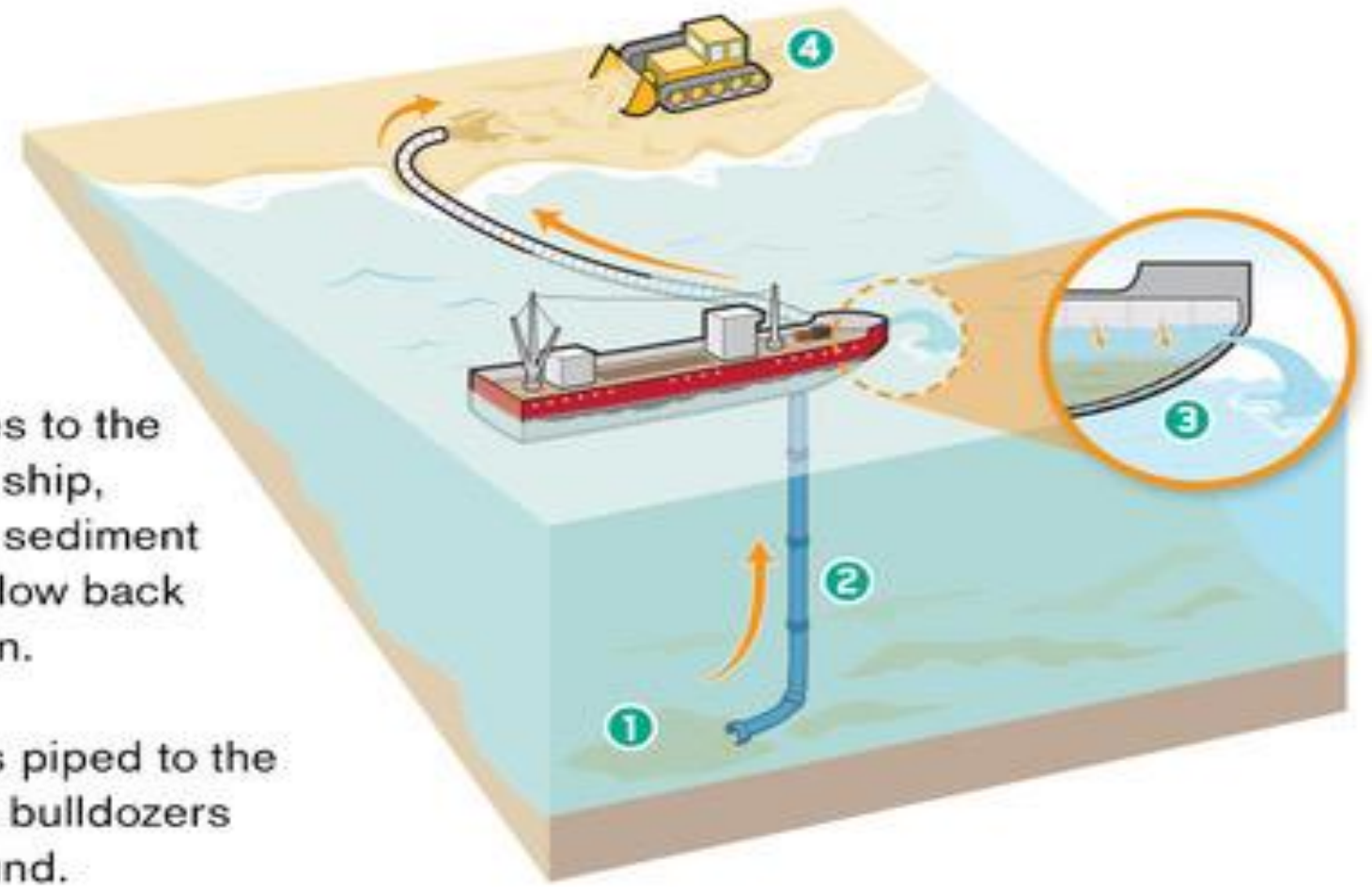
Large ships called *dredgers* are designed to dig or suck up sediment from the bottom of a body of water. They're used to harvest offshore sand for beach nourishment.

1. A vacuum-like device scrapes over the seabed, sucking up sand and seawater.

2. The mixture is pumped into a large container on the ship.

3. Sand settles to the bottom of the ship, allowing finer sediment and water to flow back in to the ocean.

4. The sand is piped to the beach, where bulldozers spread it around.



## *HOW OFFSHORE DREDGE WORKS*

A SOLUTION FOR MISQUAMICUT

# *WHY BEACH NOURISHMENT?*

- Beach erosion is expected to become increasingly more detrimental in the coming years. While the construction of hard structures like seawalls and artificial reefs might last longer, "soft engineering projects" like nourishment and dune restoration are generally more sustainable and less intrusive. It needs to be repeated every 7-10 years.

# *BENEFITS & PUBLIC ACCESS*

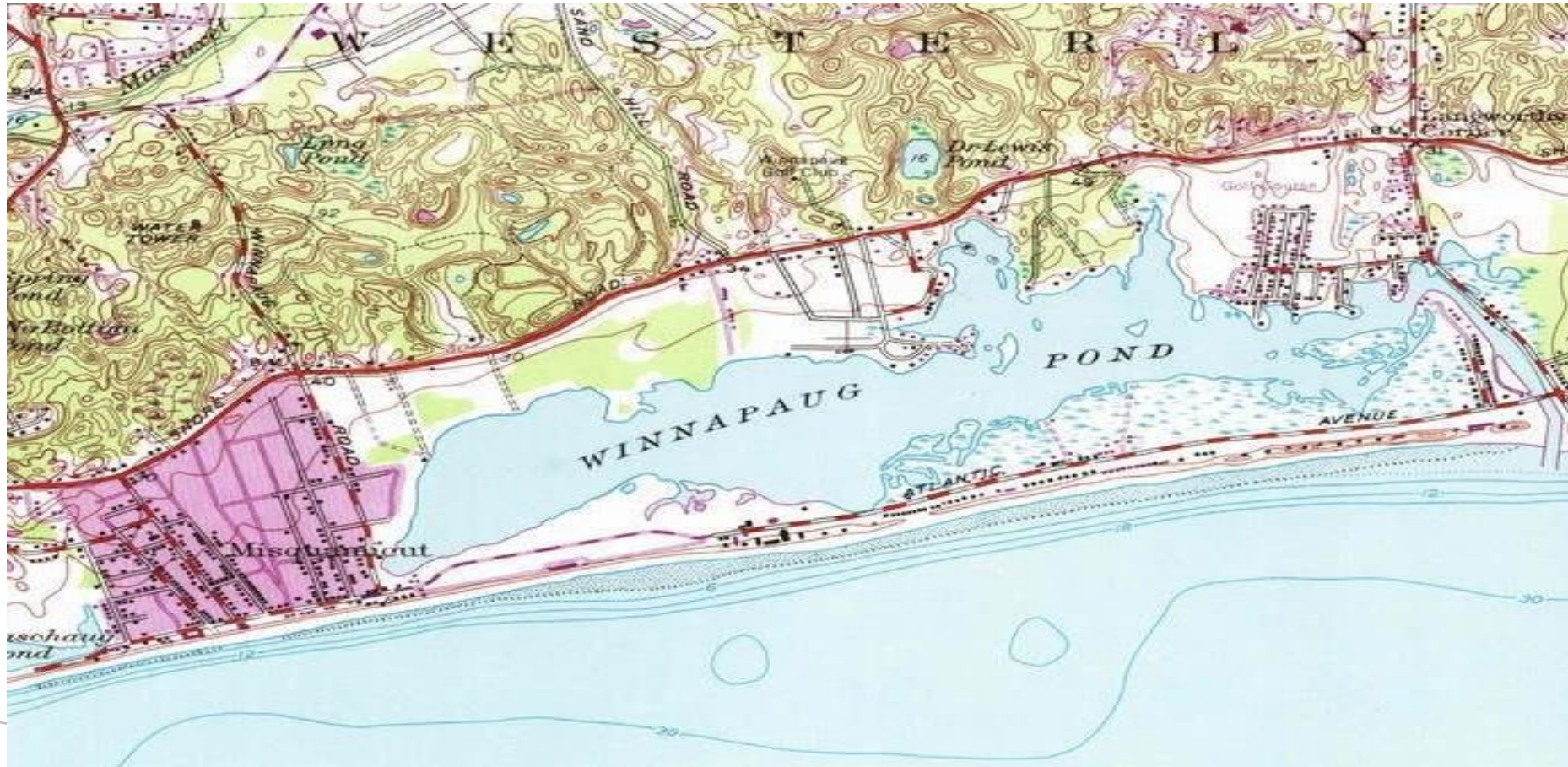
**PUBLIC  
BEACH  
ACCESS**

- If we add 100-150 feet of beach, not only do we protect the infrastructure, revenue and jobs, but we expand public access. Right now, we all fight over a small bit of sand even with the 10-foot rule. If this project adds more beach, it is all public and cannot be off limits to anyone.

# *INSURANCE*

- Adding beach and protection for structures will bring down insurance rates and make it easier to obtain.

*WEEKAPPAUG BREACHWAY TO  
LITTLE MASCHAUG POND 3 MILES*



# *POTENTIAL COSTS*

- 8-10 million dollars per mile (3 miles to do)
- 24-30 Million for the project each decade
- Army Corp (Federal Government) pays 2/3
- Balance of 8-10 Million
- State owns a ½ mile of the 3 miles (4-5 Million)
- Westerly would need to contribute 3-5 Million per decade for this project (\$300-\$500k Per Year)
  - Meal Tax-Hotel Tax-Fire District contribution are all possible ways as well



# *PERSPECTIVE IN SPENDING FOR TOWN OF WESTERLY BUDGET*

- \$100 Million annual Town Budget
- \$50 Million for Elementary schools
- \$13 Million for Police Station
- \$3.5 Million for School Street Roadwork
- \$3.5 Million for Public Works Facility
- \$300-\$500 annually for keeping the ocean from taking Atlantic Ave. and losing 215 homes and dozens of businesses.

## *PERSPECTIVE FOR THE STATE*

- 5 million contribution per decade to save over 150 million in direct revenue to the state budget.

# *NO ACTION MEANS*

- 9 Million annual in Property taxes from Misquamicut lost and passed on to the rest of Westerly Taxpayers.
- Spend 25-30 million per decade to save hundreds of millions
- Or Spend hundreds of millions to remove all structures, septic, lines and other infrastructure. And lose access.



# *FINAL TIPS & TAKEAWAYS*

Inaction will cost millions more than taking action

Long term benefits include greater public access, protection of assets, infrastructure, town and state property, homes and jobs

The clock is ticking, there is not much more time to act

This takes participation of many stakeholders all rowing in the same direction

Town Council

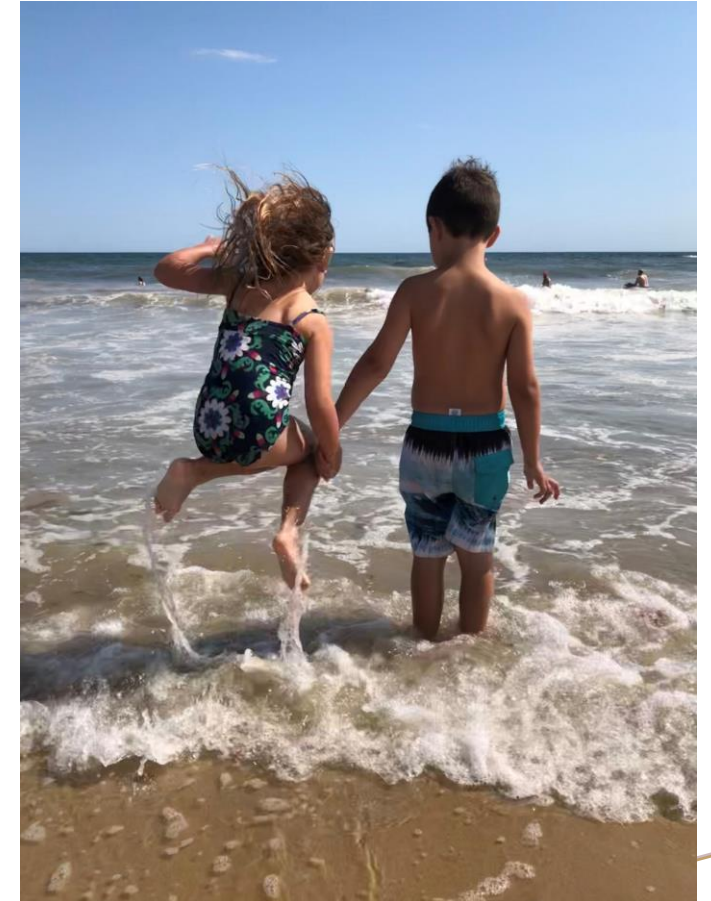
State Rep and Senator

Governors office DEM and CRMC

Fire District

Businesses

Home Owners





# *THANK YOU*

Caswell Cooke

Executive Director, MBA

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