







# Squibnocket Committee

## Review of Existing Conditions

Friends of Squibnocket  
August 26, 2014

# Agenda

- Basic Beach Dimensions & Attributes
- High Level Resources Mapping & WPA
- Mapping of Target Area
- Wetlands Delineation
- Estimate of Shoreline Without Revetments
- Dune Ridge Solution
- Alternative Solutions Perspective



370' in front of parking lot  
and causeway revetments

80' in front of Money Hill  
revetment

890' from end of Money Hill  
revetment to Mussel Shoal





Parking Lot  
Revetment

Pre-1991 revetment  
& wooden bulwark

Causeway revetment

Pre-1991 Revetment

Money Hill Revetment





October 2011



October 2011



# Access: Causeway and Money Hill



# Money Hill -- 2014



# Topographical Analysis

- History of terrain
- Overview of Natural *Resources* & WPA
- Base map & wetlands delineation
- Shoreline after revetments - '*Zero Years*'



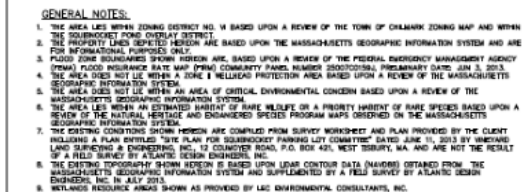


# Wetlands Protection Act (WPA)

- Barrier beaches:
  - Storm damage prevention
  - Flood control
  - Protection of wildlife habitat & pond
- Coastal dunes - additional functions:
  - Source of sand for coastal beaches
  - Protection from waves by shape
  - Vegetative cover provides sand deposition

# Wetlands Protection Act (WPA)

- Regulations are very restrictive: *'high bar'*
- Permitted on Barrier Beach/Coastal Dune
  - Pedestrian walkways
  - Planting native vegetative cover
  - Fencing for sand deposition
  - Existing roadway
- Restrictions also tight for Coastal Banks
  - *If they provide sediment to beaches*



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# Wetlands Delineation

- Bordering Vegetated Wetlands (BVW)
  - Added 9 new flags (Weldon & Jeffers)
  - Validated remaining flags
  - Surveyed all flags
- Non-surveyed resources have been mapped
  - Coastal Dune, Barrier Beach, etc
- Recommend submission to ConCom (RDA)

# Shoreline without Revetments










- Base map '*Zero Years*'
  - After shoreline naturalizes
- Determined by:
  - Aerial photos
  - Top of banks & high water mark
- Used as point of departure
  - Apply erosion factors
  - 25 & 50 year projections

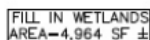




### LEGEND

- LEGEND**

  -  CRYSTAL LEAF CONTOURS
  -  EDGE OF BORDERS
  -  UNIFORMITY INCLINED
  -  CRYSTAL FILL
  -  CRYSTAL STYLING
  -  CR. GIVE
  -  MESH HIGH ENTRY
  -  EDGE OF FORD
  -  EDGE OF PANDENT

BARRIER  
BEACH

ATLANTIC  
OCEAN

GENERAL NOTES:

- GENERAL NOTES:**
1. THE AREA LIES WITHIN ZONING DISTRICT NO. W BASED UPON A REVIEW OF THE TOWN OF CHAMPAIGN ZONING MAP AND WITHIN THE PROPERTY LINES Delineated THEREON ARE BASED UPON THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM AND ARE FLOOD ZONE BOUNDARIES SHOWN THEREON ARE BASED UPON A REVIEW OF THE FEDERAL ENGINEERING MANAGEMENT AGENCY NATIONAL FLOOD INSURANCE PROGRAM AND ENGINEERED STUDY PROGRAM MAPS ORIGINATED ON THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM.
2. THE AREA DOES NOT LIE WITHIN A ZONE I WELLHEAD PROTECTION AREA BASED UPON A REVIEW OF THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM.
3. THE AREA DOES NOT LIE WITHIN AN AREA OF CRITICAL ENVIRONMENTAL CONCERN BASED UPON A REVIEW OF THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM.
4. THE AREA LIES WITHIN AN ESTIMATED RAINFALL RATE OF ONE INCH PER HOUR BASED UPON DATA PROVIDED BY THE U.S. DEPARTMENT OF COMMERCE AND ENGINEERS' RECORDS FOR PREVIOUS MAPS ORIGINATED ON THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM.
5. THE AREA IS LOCATED WITHIN AN ENVIRONMENTAL PLANNING ACT ZONING DISTRICT AND PLAN PROVIDED BY THE CLIENT INCLUDING A PLAN ENTITLED "PLAN FOR ROUNDBOULT PARKING LOT COMPLETE" DATED JUNE 14, 2013 BY WEINBERG ASSOCIATES INC. THE PLAN SHOWS THE LOCATION OF THE PROJECT AND THE LOCATION OF THE ADJACENT ROAD AS WELL AS A FIELD SURVEY BY ATLANTIC DESIGN ENGINEERS, INC.
6. THE AREA IS LOCATED WITHIN A 100 YEAR COASTAL FLOOD HAZARD ZONE BASED UPON A REVIEW OF THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM AND SUPPLEMENTED BY A FIELD SURVEY BY ATLANTIC DESIGN ENGINEERS, INC. DATED JULY 18, 2013.
7. NEIGHBORHOOD AERIALS SHOWN AS PROVIDED BY LOGIC ENVIRONMENTAL CONSULTANTS, INC.
8. INFORMATION PROVIDED BY APPLICANT HAS BEEN VERIFIED BY FIELD SURVEY BY ATLANTIC DESIGN ENGINEERS, INC.

BASE MAP - ZERO YEARS  
FOR  
SQUIBNOCKET POND PROJECT  
CHILMARK, MASSACHUSETTS  
AUGUST 20, 2014

PREPARED FOR:  
**FRIENDS OF SQUIBNOCKET**  
C/O TONY ORPHANOS, 81 CROSBY STREET  
NEW YORK, NY 10012

FD-2772.01 Page 20



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SCALE  
SCALE 1" = 30'

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# Remaining Tasks - Dune Ridge

- Complete analytic data gathering
  - Erosion projections
  - Nearshore wave & water level assessment
- Design
  - Dune ridge & parking alternatives
- Sustainability
  - Dune ridge & road
  - Parking

# Alternatives Perspective

- Access - sustainability & rural character
  - Dune Ridge/Road Solution
  - Squibnocket Farm Bridge
  - Bridge over another area of pond
- Parking - Committee needs to decide which alternative is most desirable
  - Discussion & negotiations follow
- Other requirements....