

## **2.2 COASTAL RESOURCES**

### **INTRODUCTION**

Dennis Coastal Resources plan is intended to provide the framework for decision making by the town departments, committees and its residents. The purpose of this plan is to serve as a guide to conserve, preserve and provide opportunities for the citizens of Dennis

The Coastal Resources is prepared in two different ways. The executive summary (general public and town meeting), the second (the long text and maps) is substantial and technical for those wishing details on the subject matter. Those plans examine trends, needs, propose actions, goals and recommends, and shall set a direction for our future growth and development.

### **PHYSICAL CHARACTERISTICS**

#### **Topography and Geology**

The Town is composed of three distinct physiographic regions as a result of glaciation that ended 13,000 years ago. Wind, wave, rain and storm action has shaped dunes, beaches and other shoreline features, but the advance and retreat of glaciers primarily characterize Dennis.

The first region is the Harwich Outwash Plain south of Setucket Road. Here, the land slopes gently southward towards Nantucket Sound. Glacial furrows carved by meltwater in the outwash plain include Bass River and Swan River. Numerous freshwater ponds ranging in size from two to more than 100 acres were formed in this area when melting blocks of glacial ice left depressions in the outwash. Coarse to medium sands dominate the outwash soil.

The second region is defined by kame deposits in the area roughly Setucket Road and Route 6A. Kame deposits are mostly steep areas of gravelly sand and gravel. In fact, the highest elevations in town (Scargo Hill – 160 feet) and the steepest hillsides are in this area. Freshwater ponds and a few small wetlands are found in the rolling landscape.

Lands north of Route 6A comprise of third region. Gently rolling hills with slopes averaging 6 percent extend to sea cliffs and bluffs overlooking Cape Cod Bay. Expansive sand flats exposed by the ten-foot tidal range in Cape Cod are distinctive.

### **MARINE RESOURCE**

In Dennis, the most important marine resources are located in the estuarine ecosystem. Estuaries are areas of high biological productivity and are an important link in the natural food chain of most marine resources. An estuary is defined as a tidal river or stream that contains a mixture of fresh and salt water. As with all ecological systems, the estuary is a habitat to a wide range of plant, bird, fish, mollusk and other invertebrates. A healthy ecosystem is dependent upon a balanced interrelationship among the various plant and animal communities. The estuarine environment is considered the most productive ecosystem in the world; it is also one of the most

fragile and susceptible to major disturbances. Our estuarine areas support a wide range of marine life including, finfish, shellfish and some crustaceans. They provide locations for recreational as well as commercial fisheries and shellfisheries that combine to stimulate the local economy. These areas, also, provide vital wildlife habitats for waterfowl and some mammals.

Urbanization activities can adversely affect the estuarine biological productivity by altering natural drainage patterns, increasing harmful toxins, sediment and nutrient levels, and raising water temperatures. Furthermore, all of Dennis currently depends on septic systems where every gallon of wastewater is returned to our groundwater, ponds and marine water. This nitrate rich wastewater is the biggest threat to our estuarine environment, it has already adversely affected these resources by disrupting the biological processes.

Under carefully controlled and regulated management policies, some human activities may actually be beneficial to the ecosystem. For instance, observations have shown that hydraulically fluffing or aerating the sand flats will stimulate the set recruitment of several species of shellfish.

## **A. Coastline**

Dennis North Coast is the land associated with Cape Cod Bay. A large commercial and recreational fishery exists off the north coast. The recreational fishery is primarily conducted from shore and from small boats. The commercial fishery is from larger boats. These fishing boats include lobster and sport fishing vessels with their homeport being Sesuit Harbor. The finfish sought by these fishermen are bluefish, tuna, striped bass, fluke, flounder, sea bass, tautog and mackerel. The Town of Brewster has one licensed fish weir that lands their catch at Sesuit Harbor. The weir's catch includes blue back herring, mackerel, menhaden, squid, goose fish and tautog.

Dennis South Coast is the land associated with Nantucket Sound. A large commercial and recreational fishery exists along this coast. They fish primarily for striped bass, bluefish, butterfish, fluke, herring, mackerel, scup, sea bass, squid and tautog. Five fish weirs are permitted in Nantucket Sound that harvest mackerel, butterfish, squid, bluefish, black sea bass, scup, bonito and fluke.

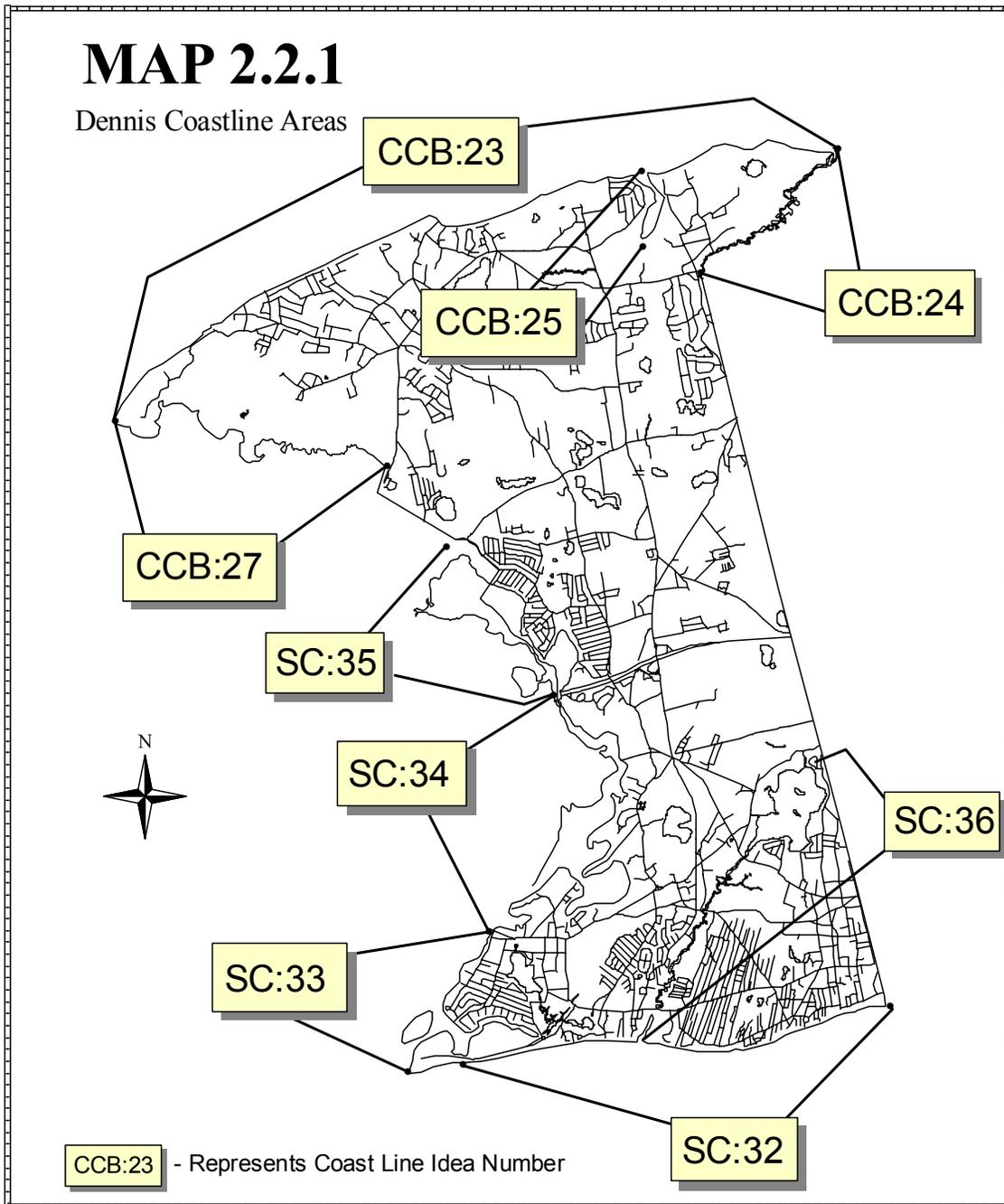
Bass River supports a large fleet of boats that commercially and recreational finfish. The preferred catch of this fleet is bluefish, striped bass, fluke, flounder and mackerel.

## **B. Estuaries**

Map 2.2.1 illustrates the coastal embayment areas, which are also referred to as estuaries. The most important estuary is the Bass River system, which includes the south including Weir Creek, the center including Horsefoot Cove and Grand Cove, and the north including Kelly's Bay and Follins Pond. The Bass River estuary is perhaps the most important estuarine system on the Cape. The marshes behind West Dennis beach and along the edge of the river provide an abundant amount of nutrient as well as a good habitat for fish and shellfish resources. The Division of Marine Fisheries has identified forty-three species of finfish in this estuary. Some of

# MAP 2.2.1

Dennis Coastline Areas



the more important sport finfish found in the river include bluefish, white perch, striped bass, tautog, scup and winter flounder.

The other estuary along the town's south coast is the Swan Pond River system. This system bisects West Dennis and Dennisport. The estuary is linked to an extensive nutrient rich marsh and wetland system. At one time, the estuary was very productive; however, in recent years due to over development, environmental pressure and bacteria and nutrient loading the system has experienced eutrophication and water quality closures for shellfishing. Recognizing this, the town has taken steps to improve conditions by: 1) constructing a seawall to improve the flushing of the river; 2) implementing road drainage improvements; 3) adopting an anti –bird feeding by-law; and 4) sponsoring a septic system upgrade program. Bluefish, winter flounder, striped bass, and white perch (in Swan Pond) are the most important commercial and sport fish found in this area.

The town has on its north coast three estuaries. Chase Garden Creek is the border between the towns of Yarmouth and Dennis. Chase Garden Creek has an extensive marsh and wetlands associated with the system. At the mouth of the system lies an area called Chapin Beach where the town supports a conservation area. Winter flounder, bluefish and striped bass are found in this system.

Sesuit Harbor and Sesuit Creek are productive but underutilized because of harbor activities and associated boating related contamination. Large marsh and wetland systems are associated with Sesuit Creek. An anadromous (herring) and catadromous (American eel) fish run flows through this system from Scargo Lake. Winter flounder, bluefish and striped bass are found in this system.

Quivett Creek is the border between the towns of Brewster and Dennis. It also has an extensive marsh and wetlands bordering its banks. An anadromous (herring) and catadromous (American eel) fish run flows through the system from Bound Brook Pond. Winter flounder, bluefish and striped bass are found in this system.

## **INVENTORY**

The Town of Dennis has a total of 62.95 miles of coastline. The coastline measurement includes all estuaries, large creeks and marsh islands. The various areas are broken down in Table 2.2.1 and are shown on Map 2.2.2. Concerning shellfishing, there is a total of 22,922.3 acres of total marine shellfish areas. This is broken down in Table 2.2.2.

**TABLE 2.2.1**  
**DENNIS COASTLINE**

North Coastal (CCB:23) - 7.24 miles
Chase Garden Creek (CCB:27) - 18.82 miles
Sesuit Harbor (CCB:25) - 3.57 Miles
Quivett Creek (CCB:24) - 2.04 miles
South Coastal (SC:32) - 4.12 miles
Bass River South (SC:33) - 9.77 miles
Bass River Central (SC:34) - 6.70 miles
Bass River north (SC:35) - 2.15 miles
Swan Pond and Swan Pond River (SC:36) - 8.52 miles
<b>Total Coastline in Dennis 62.95 miles</b>

Source: Dennis Shellfish Management Plan.

NOTE: Number in ( ) denotes DMF area code as shown on Map

**TABLE 2.2.2 - DENNIS SHELLFISH AREA**

North Coastal (CCB:23) - 12,016.8 acres
Chase Garden Creek (CCB:27) - 140.0 acres
Sesuit Harbor (CCB:25) - 45.5 acres
Quivett Creek (CCB:24) - 25.0 acres
South Coastal (SC:3) - 10,097 acres
Bass River South (SC:33) - 117.3 acres
Bass River Central (SC:34) - 206.4 acres
Bass River North (SC:35) - 94.3 acres
Swan Pond and Swan Pond River (SC:36) - 180.0 acres
<b>Total marine shellfish area = 22,922.3 acres</b>

The various shellfishing areas are described below. Please note that MA General Laws, Town of Dennis By-laws and Town of Dennis Regulations are promulgated to protect the Town, its lands and all its resources.

1. **North Coastal** – CCB:23

The north coastal is the shellfish area associated with Cape Cod Bay. Cape Cod Bay experiences an average change in tidal height of 9.5 feet twice daily. These heights do vary with the lunar pull, storms and winds. Starting from the furthest point west in town, the area closest to the Town of Yarmouth is called Chapin Beach. The main features include miles of exposed fine to medium sand beaches where tidal flats are exposed at low tides or long rolling sand flats with facing dunes. When standing at the high tide line-facing north at the time of low tide, the low line is a good mile in the distance. Chapin Beach is one of the 30 largest barrier beaches in the state according to the Massachusetts Coastal Zone Management. Continuing east along the area to Bayview Beach, the expanse of flats is reduced and the dunes are interspersed with coastal bank. From Bayview Beach to Corporation Beach, the flats continue to diminish but the dune is replaced with coastal bank rising on occasion forty feet from the beach floor. The shellfish

resources present in this areas are soft-shell clams, razor clams, blue mussels and sea clams. Corporation Beach marks the end of this first geological feature. It is the first in a series of more than eight rocky promenades formed by the glaciers that extended across the rest of the north coastal. The area between each rocky point is laced with narrow white sand flats. The area furthest east or closest to the Town of Brewster is called Crowes Pasture Beach. This beach is partially fronted with a marsh and starts to expand similar to Chapin Beach to miles of long rolling sand flats.

2. **Chase Garden Creek – CCB:27**

Chase Garden Creek is the longest of the three north coastal estuaries and is located as the town bounds between Dennis and Yarmouth. This estuary has the largest marsh systems of all the Dennis marine systems. The shellfish resources present in this area are soft shell clams, razor clams and sea clams.

3. **Sesuit Harbor – CCB:25**

Sesuit Harbor is a large marsh estuary that has been altered by man to accommodate a historic fishing fleet now in the form of a private and municipal marina. This system is one of two that are totally within the bounds of the town. The shellfish resources present in this area are soft shell clams, quahogs, blue mussels, and oysters.

4. **Quivett Creek – CCB:24**

Quivett Creek is the system that is furthest east on the north side of town and shared with the Town of Brewster. It has a large marsh area and an annual herring run to its head, Bound Brook Pond. The shellfish resources present in this area are soft shell clams, razor clams.

5. **South Coastal – SC:32**

Dennis South Coastal is the area associated with Nantucket Sound. The tidal height of Nantucket Sound averages 3.4 feet. Its physical characteristics are predominately wave cut platform beaches with the addition of man-made seawalls and groins along its distance. The shellfish resources in this area are soft shell clams, blue mussels and scallops.

6. **Bass River South – SC:33**

Bass River is located at the west side of southern Dennis and is the Dennis/Yarmouth town line. Bass River South includes the portion of Bass River from the Route 28 bridge south to the mouth. There are approximately 117 acres in the Town of Dennis. A marsh island (Stage Island) found near the mouth divides the river and the branch to the east is locally known as “the fingers”. A large marsh in this area drains into the river. Two ponds, Kelley’s Pond and Uncle Steven’s Pond drain Weir Creek, which is the head of the fingers. Weir Creek has a marsh system. Most of Bass River has a narrow fringe marsh.

Note: The shellfish resources for all of Bass River are quahogs, soft shell clams, soft shell clams, blue mussels, razor clams, scallops and oysters.

7. **Bass River Central – SC:34**

Bass River Center is the middle portion of Bass River in the towns of Dennis and Yarmouth. It is the area in the river north of Route 28 bridge and south of the Route 6 bridge. The area in Dennis is 206 acres. Most of the entire coast of Bass River Center is fringed with marsh.

8. **Bass River North – SC:35**

Bass River North is the upper portion of Bass River in the towns of Dennis and Yarmouth. It is the area north of the Route 6 bridge and consists of Kelley's Bay, the narrows and Follins Pond. Again, predominately fringed by marsh.

9. **Swan Pond and Swan Pond River – SC:36**

Swan Pond and Swan Pond River is the second river system that is contained entirely within Dennis. Its river is narrow in width and long and leads to a large shallow water pond. It has two smaller creeks associated in its system. One, Otter creek is found half way up the river and forks to the east to drain the remains of a White Cedar Swamp. The second is the head of the pond and the only surface water source of fresh water to the pond. The shellfish resources for this area are soft shell clams, oysters, blue mussels and quahogs.

## **TOWN LANDINGS – ACCESS TO WATER**

### **NORTH COASTAL**

#### **Chase Garden Creek, Dennis/Yarmouth**

- Limited access through Chapin Beach Conservation Area's 4-wheel drive and Yarmouth (The town off-road vehicle program is the subject of a Conservation Commission Order of Conditions and management plan and are incorporated in an Appendix).

#### **Chapin Beach, Dennis (including Chase Garden Creek, Chapin Beach and Bass Hole)**

Chapin Beach – access to water, Chapin Beach Road, 68 acres

- 73 vehicle paved parking lot
- Major supervised beach
- Bath house

Chapin Beach Conservation Area, Beach, Town way to water, additional 29.42 acres

- 4- wheel drive access to mouth of Chase Garden Creek – PERMITS REQUIRED

- main access at the end of Chapin Beach Road
- winter access at Dr Bottero Road Landing

**Bottero Road Landing** - way to water, 0.59 acres

- at Dr Bottero Road and Chapin Beach Road
- No Parking

**Taunton Avenue** – common landing, access to water, 0.66 acres

- at the end of Taunton Road
- No Parking

**Horsefoot Path Landing** – landing, way to water, 0.08 acres

- At the end of Horsefoot Path
- Municipal Vehicle ONLY 4-wheel drive access
- No Parking

**Horsefoot Path Beach** – beach, access to water, 0.75 acres

- No Parking

**Mayflower Beach** – Beach, access to water, 10.69 acres

- At Dunes Road
- Major supervised beach
- Concession Stand
- Rest Rooms seasonally
- 220 Vehicle Parking dirt lot

**Dunes Road Landing** – access to water, 0.05 acres

- Foot traffic primary access to Mayflower Beach
- No Parking

**Bay View Road Beach** – beach, access to water, 2.19 acres

- Major supervised beach
- Access through and at the end of Bay View Road
- Municipal vehicle ONLY 4-wheel drive way to water
- 62 vehicle parking paved lot

**Shore Road Landing** – access to water, 0.07 acres

- No parking

**Nobscussett Road Common Landing** – access to water, 0.22 acres

- No Parking

**Nobscussett Harbor** (old harbor not in use), way to water

- At the end of Corporation Road
- Boat Launching (small craft – ONLY)

- No moorings
- Town Beach Parking Area

**Corporation Beach** – beach, access to water, 10.6 acres

- At the end of Corporation Road
- Major supervised beach
- Concession Stand
- Rest Rooms
- Play ground
- 122 vehicle parking paved lot

**Howes Street Beach** – beach, access to water, 1.05 acres

- Major supervised beach
- Bath house

**Harborview Beach** – beach, access to water, 0.42 acres

- Municipal use ONLY, 4-wheel vehicle access.
- 14 car dirt parking
- Wide flat stone jetty.

**Sesuit Road Landing**, access to water, 0.1 acres

- Wood walkway to outer harbor

**Harbor Road Landing**, access to water, inactive, 0.75 acres

**Sesuit Harbor** – harbor, slips, ramps.

Major Harbor – Harbor of Refuge

Town marina, west side, Sesuit Neck Road

- excellent double-wide paved ramp
- courtesy pier and dock for tie-ups
- 100 car paved and gravel parking, lighted
- restrooms
- pay phone
- Extensive docks and floats
- Commercial dock
- Porta-potty dump out station
- Town dock access to 136 town slips (leases only).

Ramp - Cold Storage Road, east side

- excellent State Public Access Board double-wide paved ramp
- 100 vehicle paved parking
- courtesy pier and dock for tie-ups
- pay phone across street

Town marina, east side

- Porta-potty dump out station
- Extensive docks and floats
- Town dock access to 137 town slips (leases only)
- Parking for 30 vehicles, dirt lot.

Private Access

Sesuit Marine Service - Sesuit Neck Road

- Full service
- Fuel: gas and diesel
- MSD Pump out facility

Special Features

Fish run

- Culvert at Sesuit Creek under Bridge Street
- 5 other culverts under 6A, Paddocks Path and Dr Lords to Scargo Lake
- 2' wide pipe
- Limit of tidal penetration

**Cold Storage Beach**, access to water, end of Cold Storage Road, 13 acres

- Municipal use ONLY 4-wheel drive access to beach
- 40 vehicle paved parking
- 64 vehicle dirt parking
- rest rooms in season
- wide flat stone jetty

**Salt Works Common Landing**, access to water, off Cold Storage Road,  
1.14 acres

- inactive

**Sea Street Beach**, end of Sea Street, East Dennis

- 62 vehicle paved parking
- rest rooms in season

**Quivett Creek** - Dennis/Brewster

Primary access through Crowe's Pasture Conservation Area's 4-wheel drive trail (Permits Required).

Beach – Crowe's Pasture Conservation Area off South Street, Dennis

- Quivett Creek mouth beach area, also.

## Special Features

Culvert at Rte. 6A over Quivett Creek at Dennis/Brewster town line

- 3' wide; mostly fresh water but very limited tidal penetration; submerged at high tide.

Culvert at Sea Street, two

- old 30" culvert (compromised)
- 3' wide, submerged at high tide, strong tidal penetration.

Fish Ladder at Bound Brook Conservation Area, off Airline Road)

- Alewife ladder; Old Stone
- totally freshwater

## SOUTH COASTAL

**BASS RIVER – NORTH** Dennis/Yarmouth, including Kelly's Bay and Follins Pond. Follins Pond Landing, access to water, boat launch, parking, 0.890 acres.

Ramp (Follins Pond Road off Mayfair Road, Dennis)

- half-paved, half-hard sand ramp
- 100' long beach
- 30 dirt parking

Old Fish House Landing, access to water, small parking. 0.210 acres.

Kelly's Bay Overlook Conservation Area, Access to water, 7.4 acres

- 6 car dirt parking

### Private Access

Marina Mayfair Boatyard (old Mayfair Road, South Dennis)

- Full service
- Fuel: gasoline

### Special Features

Bridges East and West Route 6 and Railroad over Bass River

- Vessel clearance: 25' wide, 8' high
- Extremely strong tidal current

**BASS RIVER - CENTER**, South Dennis (from Route 28 to Route 6, including Horsefoot Cove and Grand Cove to the railroad bridge)

**Horsefoot Cove Landing**, access to water, boat launch, parking, 0.980 acres.

Off Route 28

- Good paved ramp
- 10 car paved, 10 car dirt parking

**Aunt Julia Ann's Dock**, access to water, pier, parking, 0.450 acres.

Aunt Julia Ann's Road off Cove Road

- Hard sand access – dingy only
- 40' long fixed wooden dock with float
- 7 dirt car dirt parking

**Cove Road – West Dennis**, access to water, pier, parking, 0.090 acres.

Cove Road, West Dennis at Grand Cove

- 20' long fixed wooden dock with float
- no launch due to bulkhead
- 10 car paved parking; lighted

**Cove Road – South Dennis**, access to water, boat launch, parking, 0.460 acres

Cove Road, South Dennis at Grand Cove

- Excellent paved ramp
- 20 car dirt parking

**Old Main Landing** (Fisherman's Landing), access to water, 0.110 acres

Fisherman's Landing, dirt road to Grand Cove, adjacent 33 Main Street, South Dennis

- Hard sand ramp – 5 car dirt parking

**Highbank Landing**, access to water, pier, small parking, 0.340 acres

Highbank Road, South Dennis

- No launch due to bulkhead
- 30' long dock with float
- 5 car dirt parking, lighted
- 10 car paved parking across road

#### Private Access

South Dennis Yacht Club, Grand Cove (Heirs Landing off Old Main Street, South Dennis)

Marina at Howling Howies (just east of Bass River Bridge on Route 28)

- Limited service; small outboard rentals

#### Marina

Bass River Marina (Route 28, West Dennis)

- Full service

- Fuel: Gasoline only

## **BASS RIVER - SOUTH**

**West Dennis or Davis Beach** off Loring Avenue to east end of river mouth)

- Major supervised beach
- Restrooms x 2
- Concession stand
- Play ground
- Municipal use only - 4 WD access very difficult due to wooden bulkhead between parking lot and beach, and dunes between parking lot and marsh
- 1,200 vehicle paved parking lot extending to jetty at river mouth.
- Municipal vehicle ONLY 4 wheel drive access

**Uncle Freeman's Landing**, access to water, boat launch, pier, parking, 0.480 acres, off Uncle Barney's Road

- Excellent doublewide paved ramp; steep
- 40' long fixed wooden dock with float at end
- 10 car paved parking; lighted

**Ferry Street Landing**, access to water, pier, 0.02 acres

Common Landing at Ferry Street extension

- No launch; 40' long fixed wooden dock with float at end
- 2 car paved parking

## Private Access

### Marinas

Ship Shops (off Pleasant Street, Yarmouth)

- Full service; paved ramp and railway
- Fuel: gasoline and diesel

### Other Private

Wrinkle Point (end of Uncle Barney's Road, West Dennis)

- Docks; Beach House
- 20 car dirt parking

West Dennis Yacht Club

- Docks and moorings
- Club house
- 50 car parking

## Special Features

- Bridge (Bass River Bridge, Route 28 over Bass River)
- Vessel clearance: 30' wide, 15' high
  - total length: 500'; concrete stanchions
- Culvert (Fisk Street, West Dennis over ditch to Kelley's Pond)
- 2' wide pipe; very little tidal penetration
- Wooden Bridges (Weir Creek to Uncle Stephens Pond)
- Lighthouse Road
  - Loring Ave

**Trotting Park Road Common Landing**, access to water, 0.150 acres.

**South Village Road Beach**, access to water, at the end of South Village Road, 0.62 acres

- Major supervised beach
- 80 vehicle dirt parking lots
- rest rooms in season
- Municipal use ONLY 4 wheel vehicle access

## SWAN POND RIVER, West Dennis

**Bakers Way**, access to water, boat launching (small craft), 0.750 acres

- Small craft
- Loose sand launch

**Hart Farm Wetlands Area**, common landing, access to water, Upper County Road over Swan Pond River, 0.590 acres

- Footpath only to water
- 12 vehicle dirt parking
- 10 car dirt parking

**Indian's Ford**, Indian Trail (off Upper County Road), access to water, boat launching, 1.33 acres.

- Small boat launch, dirt ramp
- 20 car dirt parking

**Clipper Lane Landing**, access to water, boat launching, 1.330 acres

- Small boat launching, partially paved ramp
- 30 car dirt parking, lighted

## Special Features

- |        |  |
|--------|--|
| Bridge | (Lower County Road over River) <ul style="list-style-type: none"><li>• Clearance: twin 12' wide, 4' high</li></ul> |
| Bridge | (Route 28 over River) <ul style="list-style-type: none"><li>• Clearance: twin 12' high, 4' high</li></ul>          |
| Bridge | (Upper County Road over River) <ul style="list-style-type: none"><li>• Clearance: twin 10' high, 4' high</li></ul> |

### **Haigis Beach**, access to water, 2.6 acres

- 58 vehicle paved parking lot
- play ground
- rest rooms in season

### **Glendon Road Beach**, access to water – see Glendon Road Common Landing, 0.52 acres

### **Glendon Road Common Landing**, access to water, 1.030 acres

- 65 vehicle paved parking, lighted
- rest rooms in season
- Municipal vehicle ONLY 4 wheel drive access.

### **Sea Street Beach**, Dennisport, Town Park, access to water, 2.83 acres

- 120 vehicle paved parking lot, lighted
- concession stand (private)
- rest rooms in season

### **Raycroft Beach**, Town Park, access to water, 0.72 acres

- 10 vehicle paved parking lot

### **Depot Street Beach**, beach, access to water, 0.35 acres

- No vehicle parking

### **Inman Road Beach**, beach, access to water, 0.62 acres

- 46 vehicle dirt parking lot
- rest rooms in season
- Municipal vehicle ONLY 4-wheel drive access

## **FRESHWATER RESOURCES**

### **POND CHARACTERISTICS, TOWN OF DENNIS**

Most of the ponds in Dennis are classic kettlehole ponds, formed on the Cape as deep depressions in the glacial outwash left by stagnant ice blocks. Most are isolated; that is, they do not drain to the sea. These ponds, depend solely on the fluctuation in the aquifer's water table for their own surface level, often expose a wide shore during the summer when the water table is low. These exposed shorelines comprise the unique habitat called "coastal plain pondshores", which harbor rare and endangered plants, such as Plymouth Gentian, golden club and long-beaked bald rush, and rare animals, such as the comet darter and New England bluet (damselflies) (See section 4.E on Vegetation and Appendix G.)

The significance of Dennis' ponds lie not in their importance for boating, as is the case in other Cape Cod towns, but rather the fact that they are the town's primary sites for rare plant and animal species and should be protected as sensitive habitat.

**GREAT POND:** Public surveyed by state engineers.

**Scargo Lake**, Route 6A, Dennis, 53 acres surface area, 48 feet maximum depth, 13 miles of shoreline.

#### Activities

Fishing (Trout-stocked), swimming, beach, boating (Note: a maximum outboard motor restriction of 7.5 hp).

#### Special Features

Princess Beach, beach, access to water, 38.66 acres

- supervised beach
- rest rooms in season
- cabana
- play ground
- hiking trails
- vehicle dirt parking

Scargo Tower Conservation Area, 5.6 acres

- no access to water
- stone outlook tower looking over the lake
- 25 vehicle paved parking lot

Scargo Lake Landing, access to water, 0.22 acres

- small boat launch dirt ramp
- 7 vehicle dirt parking lot

Indian Burial Ground, cemetery, 0.21 acres

- historical Indian site
- No parking

Anson H. Howes Conservation Area, access to water, 0.33 acres

- Scargo Lake level control, fish run

Dr. Lords Road, Common Landing, 0.22 acres

- Scargo beach, supervised
- Small boat launch, no ramp
- 25 vehicle paved parking
- rest rooms in season

## **GREAT PONDS – TOWN** (Public surface area greater than 10 acres)

**Fresh Pond**, Rte. 134, South Dennis, 29 acres, 8 feet maximum depth, 0.95 miles of shore-line

### Activities

Fishing, boating (Note a maximum outboard motor restriction of 5 hp.), see Conservation area.

### Special Features

Cedar swamp, water tannic brown from acid water and cedar  
Outlet to Grand Cove, Bass River

Fresh Pond Conservation Area, access to water, 95.35 acres

- Nature trails
- Picking
- Dog park
- Small boat launch
- 15 vehicle dirt parking lot

**Kelley's Pond**, Pond Street, West Dennis, 25 acres, 0.95 miles of shore line

### Activities

Fishing, Small boating

### Special Features

Open to the sea, partially tidal, brackish water

Kelley's Pond Terrace conservation area, passive recreation, 0.28 acres

- no parking
- small boat launch, no ramp

Kelley's Pond Herring Run, inactive, 1.47 acres

**Flax Pond**, Pond Street, Dennis, 15 acres, 29 feet maximum depth, 0.52 miles of shore-line

### Activities

Swimming, fishing, boating, see Town conservation area

### Special Features

Excellent example of a Kettle Hole Lake

King Property – Flax Pond Conservation Area, access to water, 73.6 acres

- small beaches
- hiking trails

- inactive cranberry bogs
- 10 vehicle dirt parking

**Grassy Pond**, Grassy Pond Drive, East Dennis, 12 acres, 0.76 miles of shore line

Special Features

State listed rare species habitat – wildlife and plants  
 Significant Coastal Plain Pond Shore  
 Note one-quarter owned by the Dennis Water District  
 Grassy Pond Place Conservation Area, 0.2 acres, access to water, passive recreation.

**White’s Pond**, Old Chatham Road, East Dennis, 12 acres, 0.47 miles to shore line  
 No formal access

**Cedar Pond**, Airline Road, East Dennis, 10 acres, 0.55 miles of shoreline

Activities

Swimming, fishing, boating

Special Features

Cedar swamp  
 Cedar Pond Conservation Area, 1.2 acres

- no ramp – boat launch
- 2 vehicle dirt parking

**Coles Pond**, Coles Pond Drive, East Dennis, 10 acres, 0.53 miles of shoreline  
 No formal access  
 State listed rare species habitat – plants  
 Crowe’s Pasture Conservation Area - frontage

**Eagle Pond**, South Dennis, 10 acres, 0.38 miles of shore line  
 Access off Love Lane, Harwich

**PONDS with Public Access:** less than 10 acres, but publicly owned frontage or access.

**Run Pond**, Setucket Road, Dennis, 9 acres, 0.57 miles of shoreline

Special Features

State listed rare species habitat – wildlife and plants  
 Significant Coastal Plain Pond Shore  
 Owned by the Dennis Water District

**Baker's Pond**, Airline Road, East Dennis, 8 acres, 0.53 miles of shoreline

Activities

fishing, boating

Special Features

State Listed Quaking Bog

State listed rare species habitat – wildlife and plants

Significant Coastal Plain Pond Shore

Bakers Pond Conservation Area, 2.92 acres

**Aunt Patty's Pond**, off Greenland Circle, East Dennis, 8 acres, 0.76 miles of shoreline

Special Features

State listed rare species habitat – wildlife and plants

Significant Coastal Plain Pond Shore

Owned by the Dennis Water District

**Funn Pond**, East Dennis, 5 acres, 0.30 of shoreline

Special Features

Owned and on the Dennis Pines Golf Course

**Clay Pond**, off Old Bass River Road, East Dennis, 5 acres, 0.28 miles of shore line

Special Features

State listed rare species habitat – wildlife and plants

Significant Coastal Plain Pond Shore

**Simmons Pond North** , 5 acres, 0.37 miles of shoreline and

**Simmons Pond South**, 5 acres, 0.41 miles of shoreline

off Simmons Pond Road West, East Dennis

Special Features

State listed rare species habitat – wildlife and plants

Significant Coastal Plain Pond Shore

(Simmons Pond North one-half owned by the Dennis Water District)

**Whittemores Pond**, Sheffield Road, South Dennis, 3 acres, 0.28 miles of shoreline

Special Features

Whittemores Pond Conservation Area, 0.76 acres, access to water

**Cash Pond**, E.D. 3 acres, 0.3 miles of shoreline, access through wellfield

**Duck Pond**, off Setucket Road, Dennis, 1.78 acres, 0.2 miles of shoreline

Special Features

Owned by the Dennis Water District

**Baker's Pondlet**, E.D. 0.75 acres, 0.2 miles of shoreline, access through wellfield

**Tiny Pond**, S.D. 0.5 acres, 0.1 miles of shoreline, access through town conservation area.

**S.E. Grass Pond**, E.D. 0.5 acres, 0.1 miles of shoreline, access through wellfield near S.Simmons Pd

**N.W.Grass Pond**, E.D. 0.4 acres, 0.1 miles of shoreline, access through wellfield near N.Simmons Pond

**The Plashes**, D.P. access through town conservation area. Manmade

**Great Pond Plash**, D.P. access through town conservation area. Manmade

**The Reservoir**, E.D. access through Bound Brook conservation area. Manmade  
Herring run

**PONDS**: less than 10 acres; no public access; surrounded by private property

**Shiverick Pond**, E.D. 2 acres, 0.2 miles of shoreline, located on Nordblom Estate

**Hinkleys Pond**, S.D. 1 acre, 0.2 miles of shoreline, located off Hummel Drive

**unnamed pond**, S.D. 0.4 acres, 0.1 miles of shoreline, Off Mayfair Road

**unnamed pond**, S.D. 0.4 acres, 0.1 miles of shoreline, Off Mayfair Road

**Little Coles Pond**, E.D. 0.4 acres, 0.1 miles of shoreline, located on Mastin estate;  
connects to Coles Pond

**HISTORICAL PONDS**: (ponds no longer in existence due to filling)

**Duck Pond**, S.D - 2.5 acres, 0.3 miles of shoreline, located within Town Landfill area

**NOTE: Total = 240+ acres & 11.58 miles of shoreline  
(does not include filled ponds)**

## GOALS AND POLICIES

**2.2.1 Goal:** To protect the public interests in the coast and rights for fishing, fowling, shellfishing and navigation, to preserve and manage coastal areas so as to safeguard and perpetuate their biological, economic, historic, maritime and aesthetic values, and to preserve, enhance and where appropriate expand public access to the shoreline.

### MINIMUM PERFORMANCE STANDARDS

2.2.1.1. Development and redevelopment along the coastline shall not interfere with existing public access and traditional public rights of way to and environmentally appropriate use of, the shoreline.

2.2.1.2. Public access shall be provided at publicly funded beach nourishment sites where such access will not impair natural habitat.

### OTHER DEVELOPMENT REVIEW POLICIES

2.2.1.3 Development and redevelopment shall reflect the traditional maritime character and/or architecture typical of the area and shall be designed to maintain and enhance views of the shoreline from public ways, waterways, access points and existing development

2.2.1.4 The construction of walkways, where environmentally acceptable, shall be encouraged to enhance shoreline access for the public, including people with disabilities.

2.2.1.5 If an existing water dependent facility is within 250 feet of the mean high water line or shoreward of the first public way, whichever is less, such use shall not be changed to a non-water dependent facility unless an overriding public benefit is provided to accommodate for the loss of the water dependent use.

2.2.1.6 Development or redevelopment of water dependent facilities shall provide coastal access benefits to the general public. Such Access shall minimize interference with the water dependent use.

2.2.1.7 Coastal engineering structures shall be designed so as to allow the public to pass along the shore (either above or below the structure) in the exercise of its public trust rights to fishing, fowling and navigation.

**2.2.2 Goal:** To limit development in areas subject to coastal storm flowage, particularly high hazard areas, in order to minimize the loss of life and structures and the environmental damage resulting from storms, flooding, erosion and relative sea level rise

### MINIMUM PERFORMANCE STANDARDS

2.2.2.1 Except as specified in Section 2.2.2.5, no development or redevelopment shall be permitted within FEMA V-flood zones. Existing structures may be reconstructed or renovated provided there is no increase in floor area or intensity of use. As an exception, where there is no feasible alternative, water-dependent structures and uses may be permitted subject to the approval of all permitting authorities.

2.2.2.2 In order to accommodate possible relative sea level rise and possible increased storm intensity, ensure human health and safety, and protect the integrity of coastal landforms and natural resources, all new buildings, including replacements, or substantial improvements to existing structures within FEMA A-zones shall be designed to accommodate the documented relative sea level rise rate in Massachusetts of at least one foot per 100 years, except as provided in Section 2.2.2.11, and in V-zones shall be designed to accommodate a relative sea level rise rate of two feet per 100 years

2.2.2.3 Except as specified in Section 2.2.2.5, no new development or redevelopment shall be permitted on barrier beaches and/or coastal dunes as defined by the Wetlands Protection Act and associated regulations and policies. Existing structures may be reconstructed or renovated, provided there is no increase in floor area or intensity of use, or conversion from seasonal to year round use.

A. If the reconstruction/renovation is greater than 50% of the replacement value of a structure, and is located in the A-zone, the lowest floor shall be elevated at least one foot above the 100 year flood elevation, except as provided in Section 2.2.2.11. If the reconstruction/renovation is greater than 50% of the replacement value of a structure, and is located in the V-zone, the lowest floor shall be elevated at least two-feet above the 100 year flood elevation, except as provided in Section 2.2.2.11. On a barrier beach or coastal dune and in either the V or A-zone, the structure shall be on open pilings, to allow for storm flowage and beach and dune migration.

B. If the structure is on a barrier beach or dune and is outside the 100 year coastal floodplain, and is proposed to be reconstructed/renovated greater than 50% of its replacement value before reconstruction, it shall be elevated at least two feet above grade on open pilings to allow dune migration.

Water-dependent public recreational facilities in these locations may be developed providing that it can be demonstrated that the proposed development will not compromise the integrity of coastal resources, and is appropriately elevated on pilings or floodproofed.

2.2.2.4 Development and redevelopment on or within 100 feet landward of a coastal bank or dune shall be designed to have no adverse effect on the height, stability, or the use of the bank or dune as a natural sediment source. In areas where banks or dunes are eroding, the setback for all new buildings and septic systems to the top of the coastal bank or dune crest shall be at least 30 times the average annual erosion rate of the bank or dune. This rate shall be determined by averaging the erosion over the previous 30-year period at a minimum. In instances where shoreline erosion rates are indicative of bank/dune erosion rates, MCZM shoreline change maps may be used in determining the setback

2.2.2.5 Where fire, storm, or similar disaster has caused damage to or loss of buildings in FEMA A- and V-zones, on barrier beaches, coastal banks or coastal dunes of greater than 50 percent of their market value, all reconstruction shall be in compliance with current applicable regulations and shall be designed in accordance with Sections. 2.1.1.4, 2.2.2.2, 2.2.2.4, 2.2.3.1, and 2.2.3.2. Any reconstruction shall not enlarge or expand the use of an existing structure.

2.2.2.6 Except as provided in Section 2.2.2.11, no new public infrastructure or expansion of existing infrastructure shall be made in flood hazard zones (FEMA A- and V-zones) unless it is shown that there is an overriding public benefit provided, and provided that such infrastructure will not promote new growth and development in flood hazard areas.

2.2.2.7 Where land subject to coastal storm flowage is significant to the interests of flood control and storm damage prevention, no activity shall increase the elevation or velocity of flood

waters or increase flows due to a change in drainage or flowage characteristics on the subject site, adjacent properties, or any public or private way.

2.2.2.8 Within the 10-year floodplain, no activity shall impede the landward migration of other resource areas within this area of the floodplain. Relative sea level rise and the landward migration of resource areas in response to relative sea level rise shall be incorporated into the design, construction, and location of structures and other activities proposed.

2.2.2.9 New structures, additions to existing structures, solid foundations, new or proposed expansions of roads, driveways or parking lots, or impermeable paving of existing ways, new or proposed expansions of coastal engineering structures, and new septic systems shall be prohibited within the V-zone of a beach, dune, barrier beach, or coastal bank where they will result in alterations to vegetative cover, interruptions in the supply of sediment to other wetland resources, and/or changes to the form or volume of a dune or beach.

2.2.2.10 Notwithstanding Sections 2.2.2.6, 2.2.2.7, 2.2.2.8 and 2.2.2.9, the following activities may be permitted provided the applicant demonstrates that best available measures are utilized to minimize adverse impacts on all critical characteristics of land subject to coastal storm flowage, and provided that all other performance standards for underlying resource areas are met: beach, dune, and bank nourishment and restoration projects, including fencing and other devices to increase dune development and plantings compatible with natural vegetative cover; elevated pedestrian walkways and elevated decks with appropriate height and spacing between planks to allow sufficient sunlight penetration; boat launching facilities, navigational aids, piers, docks, wharves and moorings; improvements necessary to maintain the structural integrity/stability of existing coastal engineering structures; projects that will restore, rehabilitate or create a saltmarsh or freshwater wetlands; projects that are approved, in writing, or conducted by the Division of Marine Fisheries that are specifically intended to increase the productivity of land containing shellfish, including aquaculture, or to maintain or enhance marine fisheries, and projects that are approved, in writing, or conducted by the Division of Fisheries and Wildlife that are specifically intended to enhance or increase wildlife habitat.

2.2.2.11 In order to allow alternative means of reducing flood hazard risks in areas where there are serious concerns about protecting the character of historic villages, the following shall apply in certified Village Growth/Activity centers located in FEMA A-zones for which a flood Hazard Mitigation Plan has been prepared and adopted by the town and has been found by the Cape Cod Commission to be consistent with state coastal policies and regulations. Notwithstanding Sections 2.1.2.5, 2.2.2.2, 2.2.2.3A and 2.2.2.6, the following standards shall apply to such certified Village Growth/Activity centers located within FEMA A-zones:

a. Development and redevelopment shall be subject to the requirements of the adopted Flood Hazard Mitigation Plan and any related policies and regulations.

b. Public infrastructure and private sewage treatment facilities (PSTFs) may be constructed in FEMA A-zones (but not within a V- or an AO-zone) provided that these facilities are consistent with the Flood Hazard Mitigation Plan and the certified Local Comprehensive Plan; further provided that the infrastructure is itself flood-resistant; and provided that such infrastructure will not promote new growth and development outside such certified Growth/Activity center.

c. All new buildings or substantial improvements to existing structures in the FEMA A-zone shall comply with FEMA and State Building Code regulations for elevation and flood-proofing

## OTHER DEVELOPMENT REVIEW POLICIES

2.2.2.12 Vehicle, boat, and pedestrian traffic in critical wildlife and plant habitat areas as identified in Section 2.4.1.1(A), wetlands, dunes, shallow estuarine areas and shorebird breeding habitat areas shall be minimized

2.2.2.13 Wherever feasible, dredge material shall be used for beach nourishment in areas subject to erosion. Such material shall be clean and compatible with existing strata

**2.2.3 Goal:** To maintain and improve coastal water quality to allow shellfishing and/or swimming in all coastal waters as appropriate, and to protect coastal ecosystems which support shellfish and finfish habitat.

## MINIMUM PERFORMANCE STANDARDS

2.2.3.1 Within FEMA V-zones, new mounded septic systems shall be prohibited except to upgrade existing substandard septic systems where such systems pose a demonstrated threat to public health, water quality or natural resources. Unless otherwise demonstrated, if feasible, solid components of the septic system shall be elevated above the 100-year flood level.

2.2.3.2 No new direct, untreated stormwater discharges shall be permitted into any coastal waters or wetlands, including discharges above or below the mean high water level.

2.2.3.3 The design and construction of stormwater management systems proposed in V-zones shall incorporate the historic rate of relative sea level rise in Massachusetts of two feet per 100 years. For systems proposed in A-zone, the historic rate of relative sea level rise in Massachusetts of one foot per 100 years shall be incorporated into the project design and construction.

2.2.3.4 In order to avoid loss of shellfish habitat and minimize impacts on wetlands, construction of community docks and piers, rather than separate structures serving individual lots, shall be required wherever possible. In significant shellfish habitat areas, as identified and documented by the Division of Marine Fisheries and/or local shellfish officials, the construction or expansion of docks and piers shall not be permitted. Docks and piers more than 50% damaged or destroyed by storms may be replaced in accordance with federal, state and local regulations, except in areas identified and documented as significant shellfish habitat.

2.2.3.5 New marinas of 10 or more slips, moorings, or active landward storage berths, and expansions of existing marinas by 10 or more slips, moorings or berths shall provide or contribute to the provision of adequate boat sewage pump-out facilities in each harbor and shall provide restrooms for their patrons. Such marinas shall also provide or contribute to provision of adequate collection facilities for solid waste and waste oil for their patrons.

2.2.3.6 New dredging projects or expansion of existing dredging projects shall not occur unless a substantial public benefit can be demonstrated including but not limited to enhancement of fish or shellfish habitat, improvements to the flushing capacity of nitrogen sensitive embayments, or necessary improvements to navigational safety.

2.2.3.7 Undisturbed buffer areas of at least 100' width surrounding coastal wetlands and/or landward of the mean high water mark of coastal waterbodies shall be protected as specified in Section 2.3.1.2.

## OTHER DEVELOPMENT REVIEW POLICIES

2.2.3.8 Where appropriate, waterfront fueling facilities should be upgraded to ensure that best management practices are used to avoid adverse impacts to water quality.

### IMPLEMENTATION

1. In order to ensure that adequate controls are in place for future disasters, Dennis shall work with the MCZM Program to distribute guidelines for pre-storm mitigation and post-storm construction activities, and update these guidelines as necessary.

Responsible Parties: CC, SAC, BD, TP, HM  
Priority: M  
Time frame for completion: On-going

2. Dennis will continue to work with other organizations to encourage cooperative research efforts on the impacts of recreational boating, and the boating activity associated with docks and piers, on coastal ponds and bays and shellfish habitat.

Responsible Parties: CC, SAC, HM, WC  
Priority: M  
Time frame for completion: On-going

3. Dennis will work with Massachusetts Coastal Zone Management (MCZM) to develop aggressive education campaigns concerning coastal hazards, sea level rise and construction practices.

Responsible Parties: CC, SAC, BD, TP, HM  
Priority: M  
Time frame for completion: On-going

4. Fish spawning and nursery areas, submerged aquatic vegetation and shellfish habitat shall be mapped by Dennis and included in the Geographic Information System (GIS). Dennis shall work with the Division of Marine Fisheries and regional agencies to develop this information for Dennis waters.

Responsible Parties: CC, SAC  
Priority: M  
Time frame for completion: On-going

5. Dennis shall work with federal, state and other authorities to ensure the protection of offshore fishing grounds from adverse impacts from oil drilling and spillage; mining; septage, sewage and hazardous waste; dumping dredge spoil disposal and other offshore development.

Responsible Parties: BS, CC, SAC, TP, HM, WC  
Priority: H  
Time frame for completion: On-going

6. Dennis shall designate “working waterfront” overlay zones along their shoreline to ensure the preservation and expansion of traditional maritime uses. Within these zones, boatyard preservation programs shall be implemented. All new buildings or accessory uses constructed within this zone shall directly benefit maritime-related uses.

Responsible Parties: CC, SAC, TP, HM, WC, BS

Priority: M

Time frame for completion: 2003

7. Dennis shall research and document public access areas to and along the shorelines, and where possible, reestablish and/or designate traditional rights-of-way to the shore through appropriate legal means.

Responsible Parties: CC, SAC, BD, TP, HM, BC

Priority: M

Time frame for completion: 2005

8. Dennis shall identify sensitive coastal areas where public access and development shall be restricted in order to maintain the integrity of coastal features, and shall take measures to protect these areas.

Responsible Parties: CC, SAC, TP, BS

Priority: H

Time frame for completion: 2005

9. Dennis shall develop harbor management plans in accordance with state guidelines and implement watershed zoning to protect coastal resources and prevent use conflicts on the water.

Responsible Parties: CC, SAC, TP, HM, WC

Priority: M

Time frame for completion: 2003

10. Dennis shall identify and designate areas (i.e. estuary’s and waterways) as federal “No Discharge Zones” for boats in conjunction with state and federal guidelines.

Responsible Parties: CC, SAC, HM, WC, BS

Priority: H

Time frame for completion: 2002

11. Dennis shall strengthen local bylaws and regulations beyond minimum state and federal standards to reduce the potential impacts to health and safety and the economy resulting from coastal storms.

Responsible Parties: CC, SAC, TP, HM, BH, BS

Priority: M

Time frame for completion: 2003

12. Dennis shall develop a list of projects that provide or enhance coastal access and use of the shoreline to be used in conditioning local Chapter 91 licenses, including maintenance and upgrading of town landings to enable legal public access to coastal waters.

Responsible Parties: CC, SAC, DPW, HM, BS

Priority:

Time frame for completion: On-going

13. Dennis shall continue to evaluate long term dredging and dredge disposal needs and alternatives.

Responsible Parties: CC, HM, WC, BS

Priority: M

Time frame for completion: 2002

14. In planning efforts, including the development of local comprehensive, harbor, and resource management plans, Dennis shall evaluate areas appropriate for aquaculture. This evaluation shall consider other uses, including mooring areas, recreational boating, existing and historic natural resource habitats, as well as tidelands ownership issues, in order to minimize conflicts with other users of coastal land marine waters.

Responsible Parties: CC, SAC, TP, HM, WC, BC

Priority: M

Time frame for completion: On-going

15. Dennis shall encourage “soft” solutions to coastal erosion (e.g. beach nourishment, planting of beach grass and related activities) as an alternative to “hard” coastal engineering structures and amend local bylaws and regulations to address this issue.

Responsible Parties: CC, SAC, HM, WC, BC

Priority: M

Time frame for completion: On-going

16. Dennis shall prioritize road run off problems with Mass. Highway and these problems should be address by Mass Highway.

Responsible Parties: CC, SAC, DPW, BS

Priority: H

Time frame for completion: On-going

18. Dennis shall recommend enactment of a regulation from BMP for manure, which would include requirements for prior storage, buffer zones, fencing and composting management.

Responsible Parties: CC, SAC, BH  
Priority: H  
Time frame for completion: 2002

18. Dennis shall enact a “Pooper Scooper” by-law.

Responsible Parties: BS, ACO  
Priority: H  
Time frame for completion: 2004

19. Dennis shall continue with the pollution mitigation program for Swan River.

Responsible Parties: CC, SAC, BH  
Priority: H  
Time frame for completion: On-going

20. Dennis shall reclaim Bound Brook herring run.

Responsible Parties: CC, SAC  
Priority: L  
Time frame for completion: 2005

21. Dennis shall start an ell grass planting program and encourage Yarmouth to join in the efforts within Bass River.

Responsible Parties: CC, SAC, BS  
Priority: M  
Time frame for completion: 2003

22. Dennis shall review the local wetlands by-laws, concentrating on wildlife and habitat, marine habitat, and nitrogen loading.

Responsible Parties: CC, SAC, HM, WC  
Priority: H  
Time frame for completion: 2003

23. The town shall identify special management areas – such as the Quivet Creek/Crowe’s Pasture District of Critical Planning Concern nomination that are in need of higher levels of protection and develop resource management and protection plans for these areas.

Responsible Parties: CC, PB  
Priority: H  
Time frame for completion: 2007

24. The town shall conduct an in-depth survey of coastal features such as armored or artificially maintained shorelines and eel grass areas, areas of concern due to the presence of exotic and/or invasive species, or other information

Responsible Parties: CC, PB  
Priority: M  
Time frame for completion: 2010

25. The town will map coastal features to the best of its abilities, in order to track changes in coastal features over time.

Responsible Parties: CC, PB  
Priority: M  
Time frame for completion: 2010

26 The town of Dennis will develop baseline information on an as needed basis as it studies its embayments, estuaries and other water resource areas.

Responsible Parties: CC, PB  
Priority: M  
Time frame for completion: 2010

27. Dennis shall review the navigable waters under its jurisdiction and develop a routine maintenance plan for dredging at sites where maintenance of municipal facilities or marine infrastructure is necessary and where additional improvements are warranted and coastal areas that require beach re-nourishment to protect habitat or public or private property.

Responsible Parties: CC, SAC, HM, WC  
Priority: H  
Time frame for completion: 2005

28. Dennis shall review the local wetlands and zoning by-laws, concentrating on criteria for locating docks and piers.

Responsible Parties: CC, HM PB  
Priority: H  
Time frame for completion: 2003

### **ABBREVIATIONS**

ACO – Animal Control Officer  
BH – Board of Health  
CC – Conservation Commission  
SAC – Shellfish Advisory Committee  
WC – Waterways Committee

BD – Building Department  
BS – Board of Selectmen  
HM – Harbormaster  
TP – Town Planner