



TOWN OF WELFLEET

300 MAIN STREET WELLFLEET MASSACHUSETTS 02667

Tel (508) 349-0300 Fax (508) 349-0305

www.wellfleet-ma.gov

Mr. Edward O'Donnell, Chief, Navigation Section
Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

December 8, 2015

Dear Mr. O'Donnell:

Wellfleet Harbor faces a critical problem that threatens public safety, the town's economy, public health and public access. Unless we act quickly to perform maintenance dredging in the harbor, Wellfleet's quality of life and its ability to thrive will be seriously impaired.

Maintenance dredging of Wellfleet Harbor cannot wait.

Our Harbor suffers from serious silting in all access channels. When low tide is at midday, this results in access being unavailable for the better part of the day. Consequences include potential life and death situations, as the Harbormaster is unable to respond to emergencies. Also in jeopardy is the very livelihood of the men and women in the aquaculture industry. In fact the threat is real and immediate to Wellfleet's overall economy that relies heavily on boating/fishing/tourism as well as public health and commercial access. The economic ripple effect creates losses in the tens of millions of dollars in lost opportunities for local business people.

Maintenance dredging is overdue in all areas of the harbor. Funding for dredging will exceed Wellfleet's annual operating budget. The town has provided the necessary funds to initiate the work and studies required to secure the permits for dredging. We continue working to achieve this goal, but we need help.

The lack of maintenance dredging dramatically impacts public safety, economics (fishing, aquaculture, tourism) and commercial/public access. Each of these is separately detailed in the following paragraphs and accompanying attachments.

OVERVIEW, BACKGROUND AND HISTORY

Wellfleet Harbor has a long and rich tradition dating back to the whaling and industry of the 1600s. Early on settlers discovered the special delight of the Wellfleet oyster ---which maintains its worldwide reputation as a unique delicacy. The harbor's contours and protected inner waters made it a natural haven for boaters, commercial fishermen and, over the past 100 years, a growing recreational and tourist industry. With nearly 70% of its land under conservation restrictions, Wellfleet is the gateway to the Cape Cod National Seashore. The Harbor's convenient location with easy access to Cape Cod Bay and all the waters of the Outer Cape make it a logical and important location for emergency operations.

The Town, State and Federal governments have contributed to making Wellfleet's Marina a model for other seacoast villages. With generous help from the United States government,

the Commonwealth of Massachusetts, and the Town itself Wellfleet boasts of a modern 21st century marina, mooring basin, and boat launch facility. A new launch ramp and marina expansion were completed in 2005, marina restoration in 2008 and stormwater remediation in 2007. The facility is built to accommodate launching and parking for up to 60 boats daily and potential mooring for 400. Unfortunately, launch times are limited and moorings constricted by the silting in muck.

Awareness of the importance of Wellfleet's Harbor is longstanding. As long ago as 1872 the Army Corps District Engineer recognized that ". . . Wellfleet Harbor is worthy of improvement by the United States in the interests of the well-established shellfishing industry and for the promotion of recreational boating." Nearly 150 years later the centrality of the Harbor to Wellfleet's commerce, economy and municipal identity remains of paramount importance.

The Town of Wellfleet takes its responsibilities as steward of the Harbor seriously. An annual two-day "State of the Harbor Conference" held in November attracts hundreds of residents for presentations that are often weighty and technically complex. Attendance over the two days regularly exceeds 10% of the year-round population of 2750. The Town maintains an independently funded Marina Enterprise Fund and strives mightily to meet all expenses through marina revenue and even putting aside some for unanticipated repairs. The volunteer Marina Advisory Committee meets regularly and provides counsel and advice to the Harbormaster and his staff.

The present silting of the Harbor is much more than an inconvenience. This situation poses serious threats to the health and welfare of those who live here as well as visitors. It compromises the ability of the Harbormaster to fulfill obligations to protect, search and rescue. At half tide or lower there is no emergency access to or from the Marina. It threatens our town's economic livelihood both directly and indirectly, and the effect of economic multipliers result in tens of millions of dollars in lost opportunities for local businesspeople, many of whom are literally living "on the edge" of self-sufficiency. Finally, it impedes access for Wellfleet's seasonal visitors who come by the tens of thousands each summer to enjoy our unspoiled ponds and beaches and the wonders of the Cape Cod National Seashore.

Taken together, the impacts of a silted-in harbor create a dire threat to Wellfleet and the Outer Cape and require immediate action. Only if maintenance dredging is undertaken can the Harbor recoup its benefits.

TECHNICAL BACKGROUND & DATA

Improvements to Wellfleet Harbor began in 1872 with the authorization of a Federal navigation channel, completed in 1899. The channel has been deepened and widened several times, most recently with a 1945 authorization for a channel 125 feet wide and 10 feet deep ending with an anchorage basin 500 feet by 800 feet. Beginning in 1958 the Marina saw a comprehensive facility modernization and improvement. The Federal channel and anchorage were finally constructed to their authorized dimensions. 1958 also saw other significant improvements with either the construction or authorization of the present breakwater, timber pier and approach and present marina. The importance of the harbor to Wellfleet is evidenced by the use of an aerial photo of the completed Marina for the cover of the 1968 annual town report.

Wellfleet, with its Federal and state partners, has worked hard to maintain and improve this first class facility. The Army Corps performed maintenance dredging of the Federal

project in 1972, 1981 and 1994. The Town/State project has been dredged with significant assistance from the Commonwealth in 1968, 1982 and 2001. Other significant improvements or repairs include the renovation or repair to the timber pier in 1983 and 1999, improved fuel dispensing system in 1999, bulkhead repairs and a floating dock system in 2000. In 2006 a pumpout dock was completed. In 2007 a general rehabilitation project was undertaken which included stormwater mitigation and construction of a walkway around the exterior to provide a walking path. With financial assistance from the Commonwealth the original single launching ramp has been doubled to accommodate more boat launchings.

Wellfleet has operated the Marina in an environmentally responsible manner. In 1999 an alternative septic system with enhanced nitrogen removal capability was installed and in 2014 a second septic system with a tight tank was installed. Pumpout facilities have been added including a pumpout boat in 1994 and dock in 2006. Regulations prohibiting power washing of boats and restricting refueling have been adopted. In 1989 the harbor was designated as an Area of Critical Environmental Concern. In 1995 Wellfleet Harbor was the first harbor on Cape Cod to receive the Federal No Discharge Zone designation from the EPA. In 2002 the Town completed Army Corps of Engineering licensing of all Marina improvements.

The Town manages the Marina as an enterprise fund under General Laws chapter 44, section 53F ½ in order to provide financial clarity for Marina operations. Marina improvements are supported by Marina revenues. Wellfleet's 2014 town meeting established a stabilization fund specifically for Marina capital improvements.

In recognition of the need for immediate maintenance dredging, Wellfleet has been working for the past five years on dredging permitting requirements and has retained Bourne Consulting Engineers for professional assistance in this endeavor.

PUBLIC SAFETY

The Harbormaster's single most important mission is to insure the safety of the boating public. The silting in of Wellfleet Harbor clogs our channels and severely crimps his ability to respond to emergencies within the Harbor –or to get to Cape Cod Bay when summoned by the U.S. Coast Guard.

The Wellfleet Harbormaster Department is part of the Cape and Islands Maritime Response System (CIMRS) whose goals are to enhance search and rescue efforts, prevent the loss of life at sea and protect the maritime environment. The CIMRS joint partnerships produce a readiness posture that reduces response time, employs a consolidated communications system between local, state and federal agencies, increases response assets, and improves search and rescue effectiveness.

The Area of Responsibility for Wellfleet's Harbormaster under CIMRS includes all of Wellfleet Harbor and the area of Cape Cod Bay extending off our shores. When an emergency arises while the Coast Guard is on a mission on the ocean side of the Cape, Wellfleet is the primary responder to this event –as the response time for Coast Guard assets from the east side of the Cape would be several hours. Our present inability to respond to any emergency around low tide is frankly unacceptable as a timely response could be the difference between life and death. There have been recent emergencies where first responders were unable to launch to render assistance. Fortunately, none of the incidents have resulted in serious injury or loss of life, but they clearly demonstrate the risks associated with the current state of the harbor.

Hurricanes, nor'easters, and sudden storms can develop quickly and demand immediate action both within the Harbor and its outskirts on Cape Cod Bay. The Harbormaster must be able to respond to these critical situations that can and do threaten thousands of boaters.

Dredging will enable the Harbormaster to provide the services for which he is legally obligated and to guarantee the boating public the protection they deserve.

While it is hard to put a price tag on this service, the serious consequences of injury or even loss of life are sobering.

ECONOMICS

A. FISHING & AQUACULTURE

The Wellfleet oyster has been world famous for centuries. Despite a year-round population of only 2750 souls, Wellfleet produces 8 million pieces of shellfish annually, a harvest second only to the much larger town of Duxbury (pop. 15,000+) in the State of Massachusetts. Shellfishing regularly produces some \$4-5 million of income on a wholesale basis and around \$15 million retail. About 200 of Wellfleet's residents work in the shellfish industry, at nearly 14% a much higher figure than for other Cape Cod towns. Of particular significance is the "multiplier" income generated by shellfishing. As "new money" created from whole cloth, shellfish revenue, as it gets spent and respent in the local economy, multiplies by a factor of at least 2 and perhaps as much as 9.

In recent years, Wellfleet's gala OysterFest has attracted upwards of 20,000 visitors for a 2-day October weekend highlighting the Wellfleet oyster and related businesses.

Failure to perform maintenance dredging will have a dramatic and dire effect on shellfishing. The decaying organic matter commonly called "black mayonnaise" is the target of the dredging and is already spewing over into nearby shellfish beds, smothering and killing off the oysters. As was noted recently by Christopher Schillaci, Vibrio Coordinator, Massachusetts Division of Marine Fisheries, the primary danger to Wellfleet's aquaculture business does **not** come from disease such as vibrio –but rather from a die-off precipitated by the aforementioned "black mayonnaise". As will be seen subsequently this danger also affects a major shellfish propagation project undertaken by the Wellfleet Wastewater Committee.

In addition, those aquaculturists who rely on boat transport to get them to their grants –or to drag for oysters –have found their hours and their revenue severely curtailed by the silted-in harbor.

While a precise figure of loss may be difficult to pin down, it is clear that failure to dredge resulting in the anticipated diminution of Wellfleet's primary business enterprise will gradually result in catastrophic, multi-million dollar losses.

On the positive side, maintenance dredging that clears out much of the "black, mayonnaise" combined with other public endeavors to improve the flow of Mayo Creek and the Herring River will allow Wellfleet to grow and enhance its aquaculture business by geometric factors.

B. TOURISM

A relatively recent development has been the burgeoning Wellfleet tourism industry over the past 50-75 years. About 2/3 of Wellfleet's homes are owned by second homeowners. The town population swells from under 3000 to well over 20,000 for the 10-12 summer

weeks. The rental home market has been conservatively estimated to be in the \$12-15 million range. Most Wellfleet businesses rely upon these summer weeks for the lion's share of their annual income. Without it, they would be unable to keep their doors open.

Within walking distance of the Marina and Harbor are 65-70 businesses. When times are good, boaters and visitors crowd the Marina's 300+ parking spots and partake of Wellfleet's many charms: the well-preserved historic district; a wealth of art galleries; numerous restaurants and small shops; the beaches, ponds and, of course, the wide expanses of the National Seashore.

Without a viable harbor, many of these businesses would be unable to stay in operation. Even visitors who do not actually come to Wellfleet by boat, or who do not use its boating facilities, hone in on the Marina, to enjoy its walkway and the scenic vistas afforded by a working harbor.

Many of Wellfleet's businesses report a downturn in visitors related to the silting in and non-viability of the harbor. As one motel owner related, he could specifically identify 6-10 families at his facility who no longer come to Wellfleet for their week's vacation because of the condition of the harbor.

From prior analysis (see sector on Aquaculture) we know a dredged harbor will conservatively facilitate some \$15-20 million in business for the town. Adding in the attendant businesses within walking distance would minimally double that impact. The Harbor traffic bolsters the grocery and restaurant business, lodging, gift shops, art galleries ---to say nothing of the more esoteric Wellfleet attractions such as our modern house exhibits, tour of historic houses and simply snack and ice cream shops.

PUBLIC HEALTH

For the past several years Wellfleet has been engaged in a shellfish propagation project as part of the Barnstable County plan to bring all Cape Cod watersheds into compliance with the Federal Clean Water Act. The results have been dramatic and heartening. The establishment by Wellfleet's Waste Water Committee of a propagation area of some 4 million oysters has resulted in cleaning of the nitrogen from the Harbor waters --in some cases up to 90%.

However, just as with the commercial aquaculturists, the Wastewater committee has encountered the silting in of the "black mayonnaise" as a serious detriment to their project. As their attached report notes, failure to dredge the harbor may well result in the short-circuiting of this all-important project. A possible result is that Wellfleet will be forced to construct a full-blown sewer and water treatment system at a cost of approximately \$60 million. Because of its location in the inner harbor, this project is particularly susceptible to the incursion of the "black mayonnaise".

PUBLIC & COMMERCIAL ACCESS

At present the Marina Boat ramp is unusable for anywhere from 4 to 6 hours daily. In addition the mooring basin is silted in, so that boats that draw as little as 2 feet are resting on the mud, making the Harbor off-bounds for large craft.

Wellfleet has two main businesses specializing in preparing and launching boats for their owners. Both report that business has actually declined in the past two years for at least two, related reasons. First is that the access to the ramp is limited by the silting. Second,

owners of large boats that need at least 4 feet of water, find it unpalatable either to have their boat rest on the mud, or launch and pull their boat daily.

In addition to the boat launch businesses, a number of fishing boat captains ply their trade from the Marina. In effect their business, which totals close to \$1 million annually, has been sliced in half by the inaccessibility of the ramp and channels. As one boat captain remarked in an attached letter, where he was formerly able to take two trips daily, he is now lucky to be able to squeeze in one.

A similar effect impacts the sailboat and boat rental business conducted off one of the Marina piers. Boat rentals that would total anywhere from \$200-400 daily are now cut in half because of the inaccessibility of the channel. Over a 10-12 week season this results in a net loss of over \$10,000 per boat for about a dozen boats.

Finally, the silting in of channels and mooring basins seriously impacts the boating public. There has been a steady decline of boaters asking to be placed on a waiting list for slips...and these past two years saw the ominous development of people asking to be taken **off** the wait list as they said the harbor is no longer a viable mooring and launching base.

A study of the economic impact of the Wellfleet Marina during 2007 (before the dire effects reported above began) stated that boaters who rent slips spend an average of \$3,628 per year on boating trips and \$6,672 on craft-related expenses...with a total trip spending by these boats at \$3 million. The direct effects on the local economy of this spending are 95 jobs, \$1.8 million in labor income and \$3.0 million in value added. If one includes secondary effects, the total impact on the local economy is 117 jobs, \$2.4 million in labor income and \$4.0 million in value added.

The preceding figures do not include dollars spent by boaters who are transients, or day-trippers who come into Wellfleet for a few hours. Even without these additional figures – and without computing the additional monies that could be generated if the Harbor and channels were accessible 24 hours a day – the effect of loss of public and commercial access can easily be seen to be a multi-million dollar one.

(Source: Economic Impact Analysis: Town of Wellfleet Marina 2007 08/17/2011)

In sum we feel there are economic, public safety, public health and public access issues compelling the maintenance dredging to Wellfleet Harbor. The symbiotic relationship of Wellfleet's harbor with marina related businesses, aquaculture, the multi-million dollar tourism industry and other less obviously connected businesses, make it absolutely critical that the Harbor's health be maintained. Maintaining that health can only be done by fulfilling the promises made to perform maintenance dredging on a regular basis.

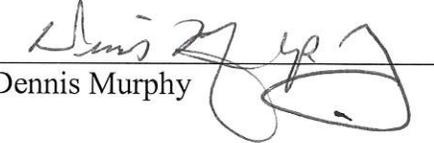
If this effort is not undertaken soon, we will lose not only the tens of millions of dollars and the projects listed above, but also we will have lost a town that epitomizes the American dream of hard work, environmental stewardship and team effort to secure a bright and prosperous future.

Respectfully Submitted:

BOARD OF SELECTMEN



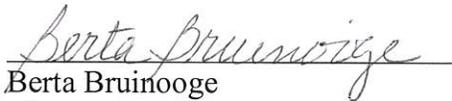
Paul Pilcher



Dennis Murphy



Helen Miranda Wilson



Berta Bruinooge



Jerry Houk

TOWN ADMINISTRATOR



Harry Sarkis Terkanian

CHAIR, MARINA ADVISORY COMMITTEE



Joseph Aberdale

HARBORMASTER



Michael Flanagan

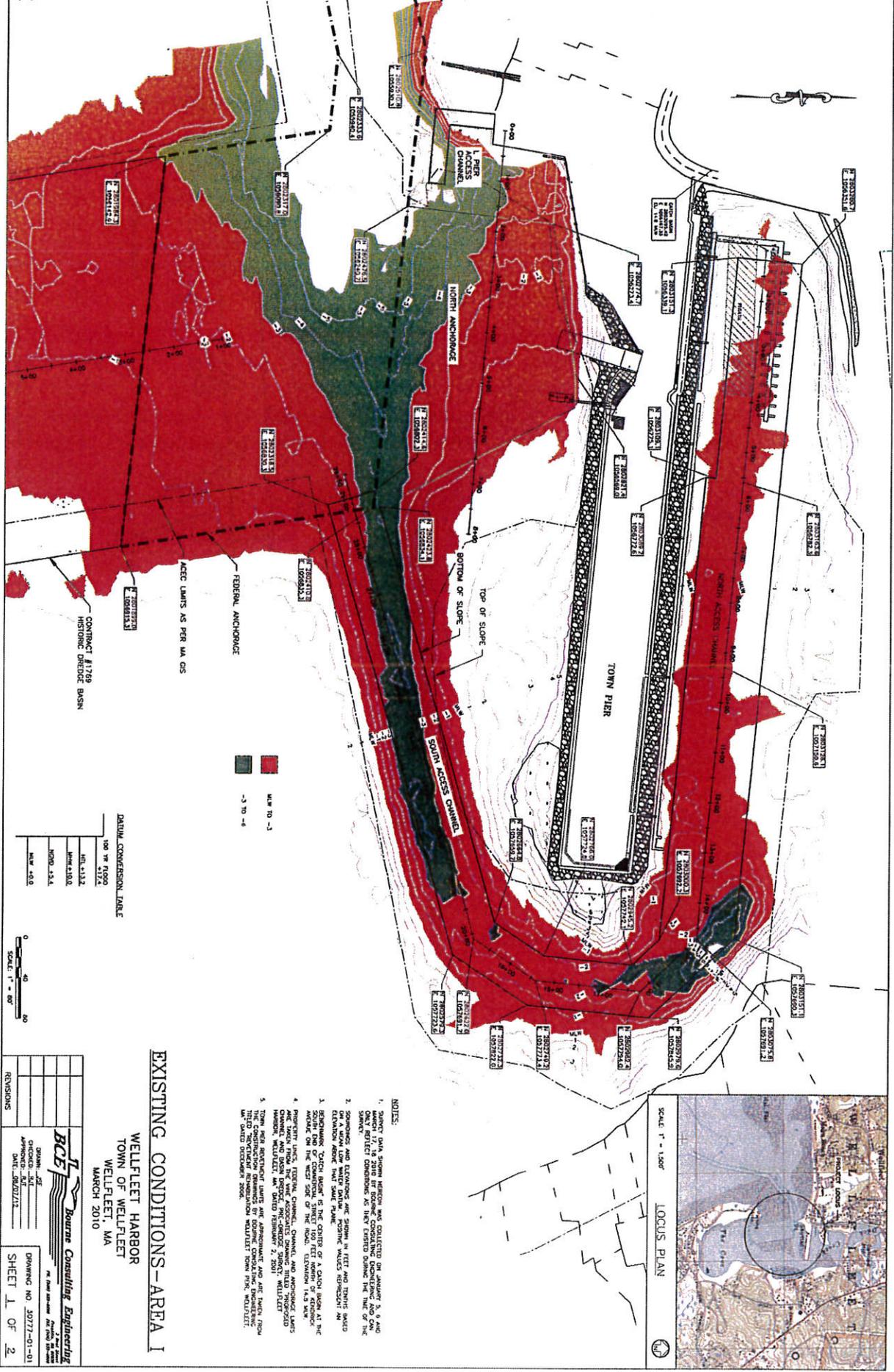
ATTACHMENTS & SOURCES:

1. Wellfleet Harbor Existing Conditions Bourne Consulting Engineering, August 7, 2012
2. Pictures of boat at rest on mud in Marina slip and mooring basin from: Ramon Rustia (06/15) and Joseph Aberdale (2015)
3. Wellfleet Harbor Survey of Fishing Boat Captains & Charter Boats re Economic Loss by Ramon Rustia Fishing Boat Captain, 06/15
4. E-Mail Memo from Bay Sails Marine CEO Lyle Butts 06/02/15
5. Letter from Captain David Stamatis, Billingsgate Charters LLC, 06/17/2015
6. Memo from Donna Pickard, CEO Wellfleet Marine Corporation, 06/19/2015
7. Memo from Wellfleet Natural Resources Advisory Board re dredging of harbor 06/19/2015
8. Economic Impact Analysis: Town of Wellfleet Marina (year of 2007) (with citations) Recreation Marine Research Center, Michigan State University 08/17/2011 update June 29, 2015
9. Memo from Wellfleet Shellfish Promotion and Tasting re oystering and Oysterfest 2014
10. Memo with Comments on proposed harbor dredging from Wellfleet Shellfish Advisory Board, 06/09/2015
11. Cape and Islands Maritime Response System Standard Operating Procedure
12. List of 65 Wellfleet Chamber of Commerce businesses within walking distance to Harbor (Chamber members only) Wellfleet Chamber of Commerce 2014
13. Memo re Wellfleet Harbormaster legal responsibilities to town and citizens from Wellfleet Harbormaster 2015
14. Letter re proposed dredging of harbor from Wellfleet Chamber of Commerce Board of Directors 06/19/2015
15. Memo re Harbor Filling Impact on Comprehensive Wastewater Plan (with citations) Wellfleet Wastewater Committee 06/20/15
16. Herring River Restoration Draft EIR/ENF with citations (2015) is available online at <http://parkplanning.nps.gov/projectHome.cfm?projectID=18573>

Thanks to the informal *Dredging Advisory Group* which met and researched assiduously beginning in spring of 2014 and together created this report:

1. Joseph Aberdale, Chair, Marina Advisory Committee; Michele Insley, Exec. Director Shellfish Promotion and Tasting; Michael Flanagan, Harbormaster; Donald Palladino, Chair, Herring River Restoration Committee, Paul Pilcher, Chair, Board of Selectmen, Harry Terkanian, Town Administrator.
2. Thanks also to Robert Prescott and Barbara Brennessel from Wellfleet Audubon for valuable advice and counsel.
3. Thanks also to Bookstore Restaurant for providing meeting and dining facilities for Advisory Group meeting with Army Corps of Engineers.

FILE: R:\30774-30777\DRUDGE REVISION 113011\080712\WELLFLEET-SHT-01 TO 04 112612.DWG
 3/27/2008 2:08 PM



- NOTES:**
1. SURVEY DATA SHOWN HEREON WAS COLLECTED ON JANUARY 3, 4 AND MARCH 17, 18 2010 BY DRUDGE CONSULTING ENGINEERING AND OUR SURVEY.
 2. SOUNDINGS AND ELEVATIONS ARE SHOWN IN FEET AND TENTHS UNLESS OTHERWISE NOTED.
 3. BENCHMARK "BATCH MARK" IS THE CENTER OF A CANTON BUSH AT THE SOUTH END OF CONVENT STREET 100 FEET NORTH OF KENNESIC ELEVATION ABOVE MEAD LAKE.
 4. POINTS ON THE WEST SIDE OF THE ROAD, ELEVATION 14.5 NAV.
 5. TOWN AND BENCHMARK LIMITS ARE APPROXIMATE AND ARE TAKEN FROM THE CONSTRUCTION DRAWINGS BY DRUDGE CONSULTING ENGINEERING AND DATE DEDICATED 2006.

EXISTING CONDITIONS - AREA 1

WELLFLEET HARBOR
 TOWN OF WELLFLEET
 WELLFLEET, MA
 MARCH 2010

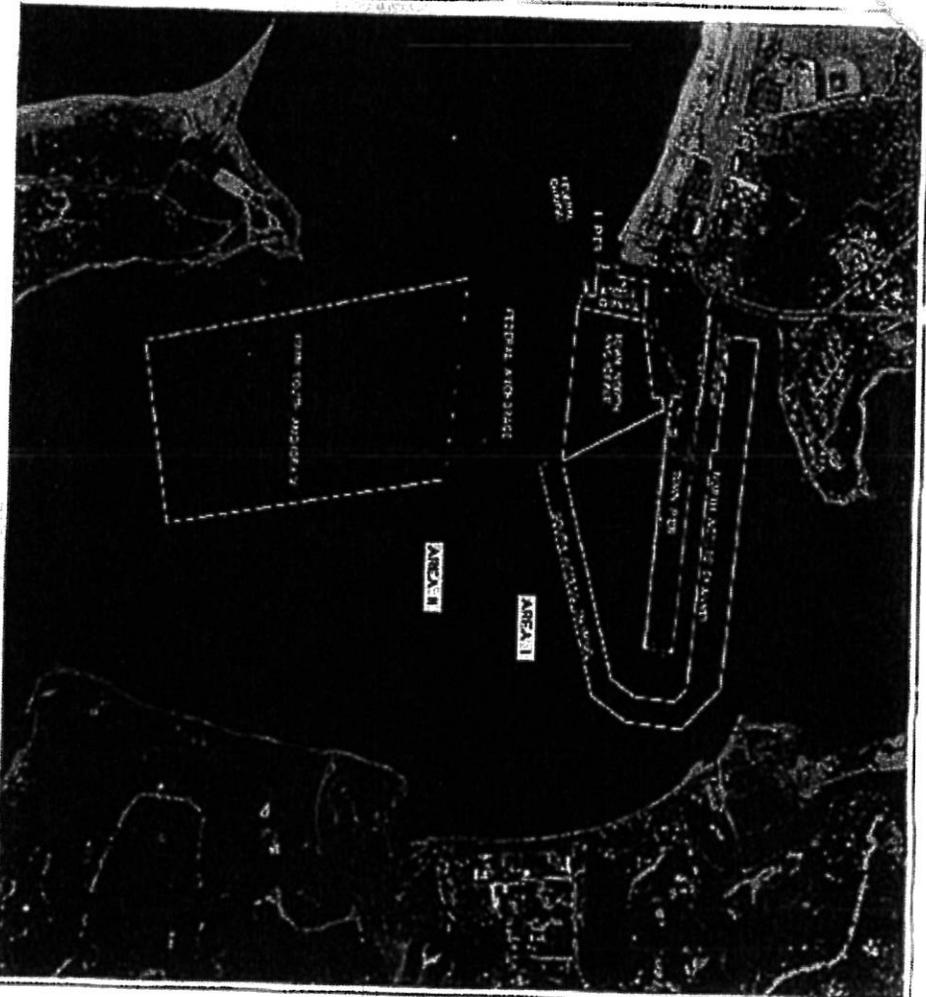
DATA CONVERSION TABLE

100 YR FLOOD	10.132
50 YR FLOOD	9.800
10 YR FLOOD	8.800
MEAN H.W.	8.400



BCBE Bourne Consulting Engineering
 1000 W. Main Street
 Bourne, MA 01929
 TEL: 508-866-2222
 FAX: 508-866-2223

DATE: 03/27/2010
 SHEET 1 OF 2

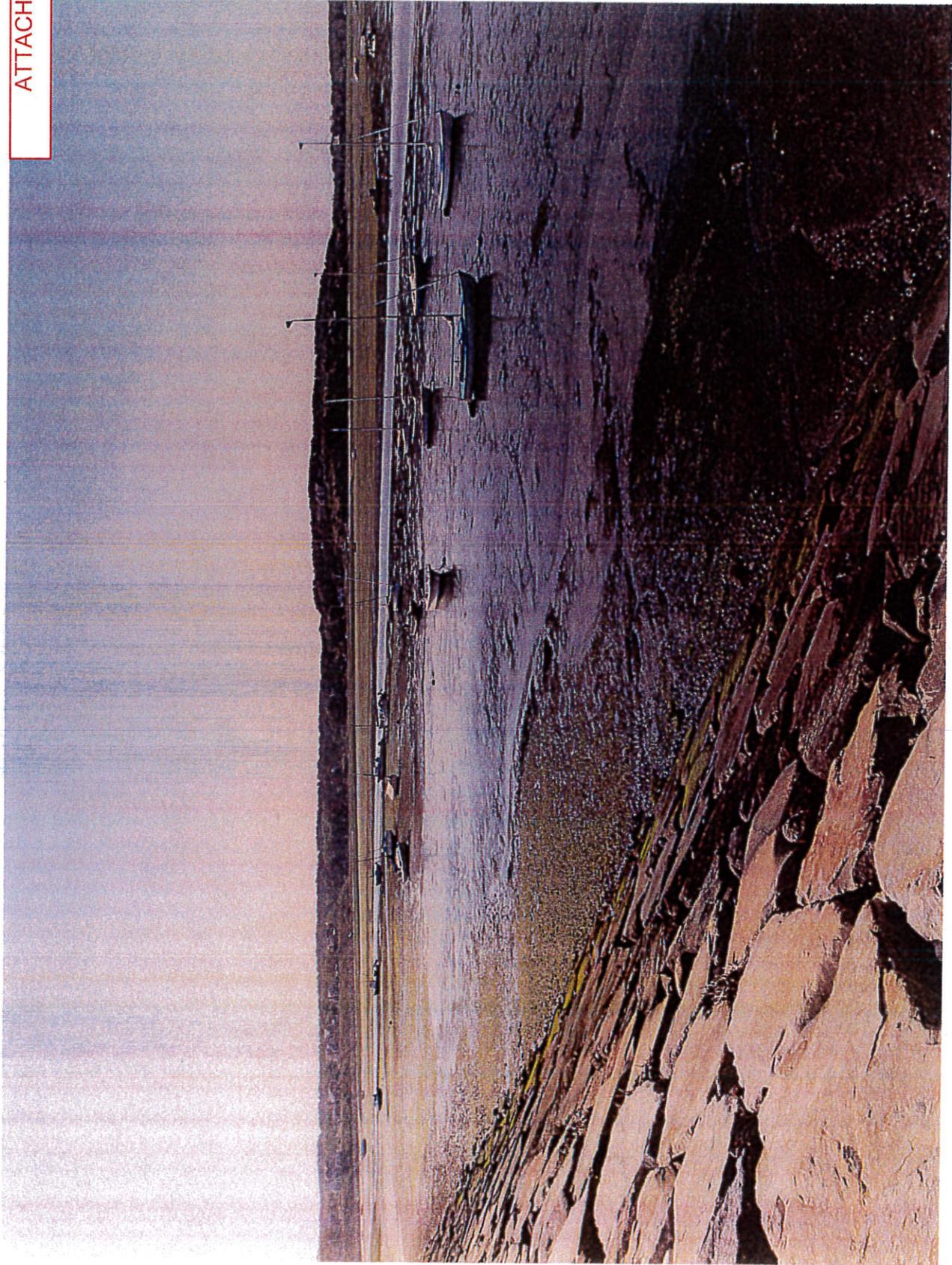


0 500
 SCALE: 1" = 500'

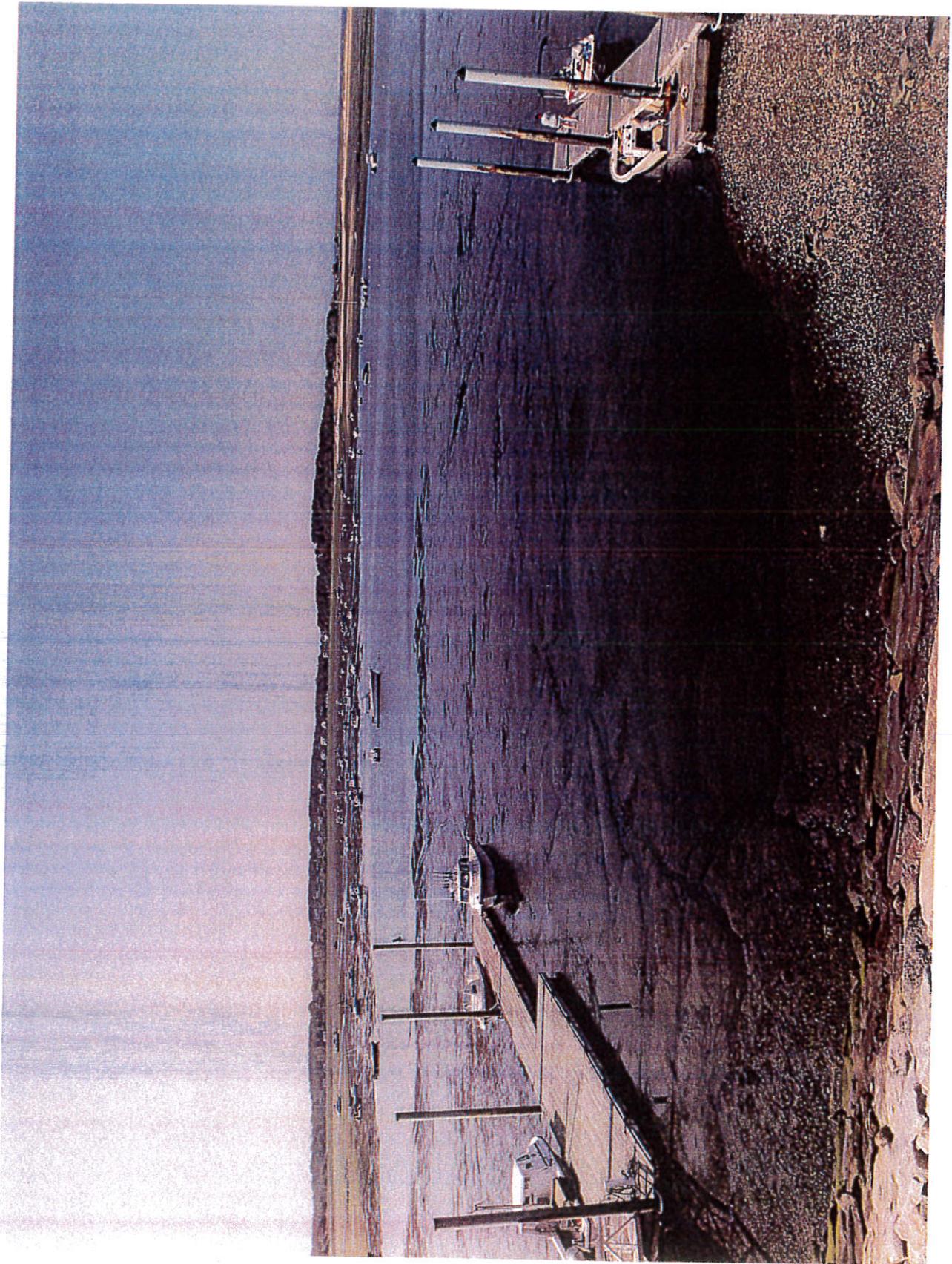
BCE *Barrett Colquhoun Engineering*
 2000 WELFLEET COMMONS
 WELFLEET, MA 01983
 TEL: 508-833-1234
 FAX: 508-833-1235
 WWW.BCE-MA.COM

WELLEFLEET HARBOR LAYOUT
 WELLEFLEET HARBOR DREDGING
 TOWN OF WELLEFLEET
 WELLEFLEET, MA
 OCTOBER 2011

EXHIBIT 1







CAPTAIN RAMON RUSTIA
SPORTFISHING CHARTERS ABOARD THE "CLOSE ENOUGH"
Explore Beyond the Shore... Sailing from Wellfleet Harbor
June 2015

PARTIAL SURVEY OF CHARTER BOAT CAPTAINS

RE: Economic loss at the Harbor

Historical background:

When I started my Charter boat business a little more than 10 years ago it was possible to schedule fishing trips and moonlight cruises on a regular basis regardless of the state of the tide.

We could leave the dock at between 7 and 8 a.m. every day and return by 12:30 in order to commence a second trip at 1 p.m. Furthermore we often did sunset cruises of 2 ½ hour duration after the fishing trips.

As a seasonal business it was important to schedule as many trips as possible in order to turn a profit.

Starting mid June and ending mid September it was possible for us to do between 90 and 100 trips with an annual gross revenue of \$70,000 to \$75,000.

Some of the larger Charter boats working out of our harbor have customer fees that are substantially higher than mine. And the one party boat in the Marina was capable of gross revenues of in excess of \$1800 daily from the fishing trips and an additional \$1,000 for each audubon nature trips which take place in the evening.

I have calculated that during ideal conditions, with the harbor dredged, the business (fishing and other cruises and boat rentals) generated a minimum of \$924,000 each season.

CAPTAIN RAMON RUSTIA
SPORTFISHING CHARTERS ABOARD THE "CLOSE ENOUGH"
Explore Beyond the Shore... Sailing from Wellfleet Harbor

CURRENT SITUATION

Sadly, the condition of the harbor currently is a disaster. The Mooring basin and the slip area are so filled in that it is no longer possible for me and the other charter boats to run two trips a day during daylight hours. The boat rental company has also been impacted by the lack of navigable water.

Last year (2014) I was only able to run 23 half day trips out of Wellfleet Marina. At one point in August I moved my business operation to Provincetown Marina (at considerable expense) in order to do two trips a day. My customer base was not happy of having to drive to P'Town along with the additional cost of parking there.

I have surveyed the other captains and it is my impression that revenue is currently less than half of what it used to be. One boat, (the party boat) is out of business completely.



Tue, Jun 02, 2015 06:34 PM

To whom it may concern,

Bay Sails Marine, Inc. is a 45 year old boat sales and service business located in Wellfleet. We employ 8 to 12 local people year round in an area where non seasonal work is hard to find. Our primary service area is the outer Cape from Orleans to Provincetown. Wellfleet Harbor is a central point in that service area and its continuing viability is critical to our existence.

In the last several years Wellfleet Harbor has had some great improvements to the benefit of all who use it. To that we all can agree. However what makes a harbor is the boats and the activity they create both commercial and recreational. Without boats it's just another piece of water front property and we have miles of that. What brings the boats is access. If you trailer, have a slip or mooring, travel from another port or tie up your commercial vessel access is the key to it all. Access is all about dredging and that is what we are lacking. Without dredging boaters slowly go away and with that so too the harbor.

There are those that say that will never happen but there is a limit. A limit to how much you will spend on maintenance, a limit to how often you can use the boat, a limit to can I unload now, or do I want to wait hours to get back on the trailer. There are other things to do and other harbors to go to.

If we want a harbor and I believe we do we need to take care of it. Historically, economically, and for our well being it has always been one of the Town's greatest assets. We need to see it go on for future generations Dredging is a huge part of that and we need to do whatever it takes.

I'm just saying,
Lyle Butts Bay Sails Marine, Inc

Billingsgate Charters, LLC

Lobster Charters/Sport Fishing Charters

Town Marina - Wellfleet Harbor

P.O. Box 578 – Wellfleet, MA 02667 - (781) 706-0145

To Whom It May Concern,

June 17, 2017

My name is David Stamatis; I am the owner and proprietor of Billingsgate Charters, LLC. I operate a small charter boat/lobster fishing business in the Town of Wellfleet. I have been running this business out of Wellfleet Harbor for the past 5 years, and have been navigating boats in this harbor for the past 30 years. Over this time, I have seen an ever increasing deterioration in the margins of navigation in this harbor due to the excessive buildup of sludge and mud. I have always had to plan around the tides in Wellfleet Harbor, however, in the last several years; this harbor has become extremely difficult to run a business out of successfully. I own two vessels, and both of them sit directly in the mud/sludge twice a day for a minimum of 3-4 hours. I have lost thousands of dollars in potential charters because I have had to reduce the number of trips I take due to the lack of water under my boat to safely navigate. Even when there is water in the basin and slip dockage areas, the shallow conditions stir up mud and debris that inevitably get sucked up into my engines on a consistent basis. I have incurred maintenance fees and service charges for repairs in the thousands of dollars in part due to the intake of sludge and mud in my boat's engines.

It is my hope that by making you aware of these deplorable conditions, the desperate need for dredging this harbor adequately will allow me to stay in business and increase my client base and assist me in defraying these avoidable repair costs. I have had to turn down countless numbers of requests solely due to the low tidal conditions in this harbor. I know I am not alone in this situation as many of my fellow charter captains and commercial fisherman are experiencing the same conditions and diminished income in their businesses. Please listen to the small business owners who sustain their livelihoods on the rise and fall of the tides in Wellfleet Harbor. We contribute greatly to this wonderful community and deserve more. If conditions persist as they currently do in Wellfleet Harbor, many businesses, including my own; that depends on trip frequency and time on the water, will not be able to sustain this substantial reduction in operation and maneuverability. It is an unhealthy condition and I am confident that I speak for all the business owners who base their operation out of this harbor by asking for your assistance in expediting the dredging process for the Town of Wellfleet and Wellfleet Harbor.

Sincerely,



David Stamatis

Captain David M Stamatis – USCG Lic # 3006779

Billingsgate Charters, LLC

P.O. Box 578

Wellfleet, MA 02667

(508) 349-3207

Boat Rentals
Town Pier

Sales & Storage
Holbrook Ave.

WELLFLEET MARINE CORP.

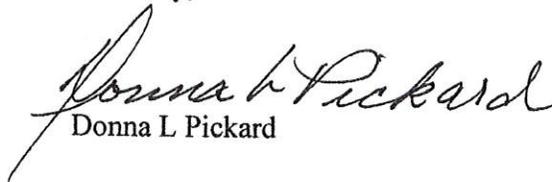
P.O. BOX 1407
Wellfleet Massachusetts 02667
(508) 349-6417

June 19, 2015

To Whom It My Concern

Wellfleet Marine Corp. has been in Wellfleet since 1954. We derive our livelihood from the harbor via our boatyard, boat rentals and service to both pleasure and commercial fishing boats. Not having the harbor dredged is detrimental to the survival of our 4 generation family business. The severity of the non-dredging for many years has led to what previously was a ten hour boat rental day to four to six hours of rental depending on the height of the tide when rental boats can leave and return to the dock, a 50% decrease in income.

Sincerely,



Donna L Pickard

NATURAL RESOURCES ADVISORY BOARD

Wellfleet, Massachusetts

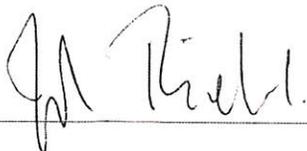
The Natural Resources Advisory Board (NRAB) is charged by the Board of Selectmen in Wellfleet to write for the town a Harbor Management Plan (HMP). The second HMP in 2006 reaffirmed that the NRAB sees the harbor and Marina as key centers and an economic drivers of the Town. We take as a basis for our thinking about the harbor and the Marina the HMP 2006 Basic Principles: Wellfleet should maintain good water quality as critical to all uses of the harbor. It should ensure multiple, traditional uses of the harbor with opportunities for local employment, and should maintain the biological diversity of the harbor in all its complexity.

Many of the recommendations of the 2006 HMP have been completed including pier repair and repaving and the installation of new storm water management drains. The “new” pier is very popular with visitors and locals because of the half-mile walking path and convenient seating round its perimeter. This all reinforces the place of the marina as a center of focus for the town. In addition, the Marina staff has made good efforts to accommodate the various needs of commercial fishermen as well as recreational boaters. Waste water concerns were alleviated when Cape Cod Bay, including Wellfleet Harbor, was made a “No Discharge Zone” in 2008.

For both recreational and commercial boaters, the harbor is a key economic driver for the Town. The two main activities are seasonal recreational boating nearly year round commercial fishing. This utility of the harbor is under threat by on-going siltation. For example, a majority of mooring sites and slips cannot now be used for a four hour period around low tide. Empty slips and moorings are increasingly a risk. If the trend continues, commercial boats will also be tidally restricted.

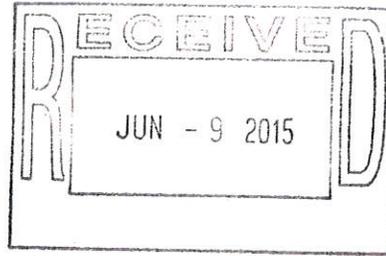
Therefore, in 2011, the Town began formal efforts to plan, permit, and execute dredging in the areas of the harbor previously dredged. There is now a completed Draft Feasibility Study for Dredging. An environmental review of the proposed dredging showed acceptably low risk to endangered species (Diamondback Terrapins). Notice has been received from the Army Corps of Engineers that no further chemical analysis of likely dredge spoils is needed and that they may therefore be safely transported to the state dump site west of Great Island.

In view of all this, the NRAB supports the Town’s harbor dredging project as it is currently being pursued.



John Riehl, Chair

*Paul
Pitcher*



Hitchcock MAC

ATTACHMENT 8

Economic Impact Analysis

TOWN OF WELLFLEET MARINA

Analysis conducted using the on-line Boating Economic Impact Model
developed by

Drs. Ed Mahoney (mahoneye@msu.edu), Dan Stynes
(stynes@msu.edu) and Yue Cui (cuiyue@msu.edu)

Recreation Marine Research Center
Michigan State University

The On-line Boating Economic Impact Model is sponsored by
Association of Marina Industries, Great Lakes Commission, U.S. Coast Guard and the
National Marine Manufacturers Association

August 17, 2011

Executive Summary

This report provides estimates of the economic impacts of the TOWN OF WELLFLEET MARINA. The marina produces direct and indirect revenues for many different types of businesses (e.g., retail, restaurants) in the local area. It also contributes to the visual character of the waterfront and contributes to the community's quality of life. Unfortunately, the economic contributions of marinas like this often go unrecognized or are undervalued. This report provides estimates of the direct and indirect economic impacts associated with the spending by the owners of boats that rent seasonal and annual slips, and the direct spending by transient boaters (tourists) staying at the TOWN OF WELLFLEET MARINA.

Economic impacts are estimated using a boater spending and impact model. Boater spending averages on a per day basis for trip spending and per boat basis for annual craft spending are adapted from spending profiles developed from two different national boater surveys conducted by the Recreation Marine Research Center (RMRC) at Michigan State University in 2005. Estimates of annual craft spending for boats kept at marinas are taken from a national survey of more than 12,500 boaters conducted in 2005 and 2006.

Annual craft spending averages were price adjusted to 2007 using consumer price indices for each spending category. Annual craft spending includes storage (during the boat season), insurance, taxes, replacement outboard motors, trailers, fuel, repairs & marine services and accessories. Loan payments for the year are included, but purchases of new boats are not. Since most boats, trailers, motors and other equipment purchased by boaters are not manufactured in the local area, only the retail and wholesale margins on these purchases are included as local impacts.

*probably
dropped
off since
2005*

Trip spending estimates, including what boaters spend on groceries, lodging, entertainment and restaurants, came from a 2006 national survey of more than 6,000 boaters that gathered information about more than 13,000 boating trips. Trip sending includes what boaters spend on boating trips for fuel, groceries, lodging, entertainment, and restaurants. Spending averages were price inflated to 2007. Spending profiles were developed for different size and type boats in different regions of the country. The craft and trip spending averages used here are for boats kept at marinas in North East Coastal Region.

The spending averages are applied to the number of slip renters and transient boaters at TOWN OF WELLFLEET MARINA. Distinct spending averages are used for power and sail boats divided into two size classes. Spending is divided into 12 trip spending categories and eight craft spending categories.

Total spending by these boaters who rent slips seasonally or annually or are transient renters is applied to a set of economic ratios and multipliers that reflect the local economy. The impact region is defined to include roughly a 30 mile radius of the marina. Economic ratios and multipliers were estimated with the IMPLAN input-output modeling system. Because the size of multipliers differ depending on the size and nature (e.g., types of businesses) of the local economy distinct sets of multipliers were developed for rural (population less than 100,000), small metro (populations 100,000-500,000), and larger metro regions (population over 500,000). Multipliers representing "Rural Area" were selected for this analysis. Economic ratios translate the spending into wages and salaries and jobs supported by the boater spending. Multipliers estimate the secondary effects as this spending flows through the local economy. Total effects include the (1) direct sales, jobs and income in firms selling directly to boaters, (2) indirect effects in firms that supply goods and services to boating businesses, and (3) induced effects resulting from household spending of income earned directly or indirectly from boater spending.

A total of 800 boats are being kept at TOWN OF WELLFLEET MARINA during 2007. This includes 500 power boats ranging from 16' to more than 40' and 300 sailboats. It is estimated that the 800 seasonal/annual slip renters will take their boats out on the water a total of 24,782 days in 2007. The average number of boating days per boat is 31 days. The marina rented slips to transient boaters a total of 95 nights in 2007.

The boaters who rent slips for the season or annually contribute to the local and state economies through spending on the upkeep and maintenance of their craft and also spending on their boating trips. Boaters who keep their boats in slips will spend about 5,972 thousand dollars annually on craft upkeep and maintenance not counting fuel. This spending is broken down as follows: 32% on slip/storage fees, 19% to loan payments including principal and interest, 23% for repairs, 7% for insurance, and 15% for accessories. Combining trip and craft spending, a typical boat spends \$3,628 per year on boating trips and \$6,672 per year on craft-related expenses.

Total trip spending by these boats kept at the marina is estimated to be \$3 million, with 15% spent on marina services, 22% on restaurants and bars, 19% groceries, 8% auto fuel and 28% boat fuel.

The direct economic effects on the local economy of this spending are 95 jobs¹, \$1.8 million in labor income and \$3.0 million in value added². The marina's non-labor operating costs such as purchases of supplies and services from other firms are not included as value added by the marina. Direct effects cover the impacts in businesses selling goods and services directly to these boaters. This includes 49 jobs in marina services, 17 jobs in restaurants and bars, and 14 jobs in retail stores.

Including secondary effects, the total impact on the local economy is 117 jobs, \$2.4 million in labor income and \$4.0 million in value added.

¹ Jobs are not full time equivalents, but include full time and part time jobs. Seasonal positions are adjusted to an annual basis, e.g., two jobs for six months equates to one job on an annual basis. Labor income includes wages and salaries, payroll benefits and income of sole proprietors. Value added includes labor income as well as profits and rents and sales taxes and other indirect business taxes.

² Value added is the income accruing to households in the region plus rents and profits of businesses and indirect business taxes. As the name implies, it is the net value added to the region's economy. For example, the value added by a marina includes wages and salaries paid to employees, their payroll benefits, profits of the marina, and sales and other indirect business taxes.

Summary of the Economic Impact Analysis Result

Table 1 - Number of Boats Kept at the Marina and Their Estimated Number of Boating Days

Boat Type and Size	Number of Boats	Average Days Per Boat	Total Boat Days
Power <40'	500	33	16,711
Power 40'+	-	-	-
Sail <40'	300	27	7,976
Sail 40'+	-	-	-
Transient Power	-	-	50
Transient Sail	-	-	45
Total	800	31	24,782

Table 2 - Total Spending on Boat Trips by Boats Kept at the Marina (\$ Thousands)

Category	Total	Percentage
Lodging	35.7	1.1%
Marina services	481.3	14.8%
Restaurant	704.5	21.7%
Groceries	602.9	18.6%
Boat fuel	907.4	27.9%
Auto fuel	253.0	7.8%
Repair & Maintenance	-	-
Marine supplies	-	-
Recreation & Entertainment	100.2	3.1%
Shopping	92.8	2.9%
Other services	-	-
Other goods	69.3	2.1%
Total	3,247.1	100%

Table 3 – Total Annual Craft Spending by Boats Kept at the Marina (\$ Thousands)

Category	Total	Percentage
Slip	1,929.5	32.3%
Loan Payments	1,141.7	19.1%
Motors	19.7	0.3%
Trailers	12.7	0.2%
Insurance	439.9	7.4%
Repairs	1,393.1	23.3%
Accessories	920.8	15.4%
Taxes	114.2	1.9%
Total	5,971.7	100%

Table 4 – Economic Impacts of Trips Spending and Annual Craft Spending by Boats Kept at the Marina

	Trip Spending	Annual Craft Spending	Total
Direct Effects			
Sales (\$ Thousands)	1,788.6	3,750.5	5,539.1
Jobs	36.5	58.5	95.1
Labor Income (\$ Thousands)	681.2	1,168.2	1,849.4
Value Added (\$ Thousands)	926.8	2,073.9	3,000.7
Total Effects			
Sales (\$ Thousands)	2,420.0	4,919.6	7,339.6
Jobs	44.2	73.0	117.2
Labor Income (\$ Thousands)	868.9	1,528.9	2,397.8
Value Added (\$ Thousands)	1,261.5	2,700.3	3,961.8

Table 5 - Economic Impact of both Craft and Trips Spending by Boats Kept at the Marina

Sector/Spending category	Sales (\$ Thousands)	Jobs	Labor Income (\$ Thousands)	Value Added (\$ Thousands)
Direct Effects				
Lodging	35.7	0.8	15.6	25.3
Marina Services	2,410.8	49.2	875.1	1,463.4
Restaurant	704.5	16.8	271.2	305.7
Recreation & Entertainment	100.2	2.0	36.4	60.8
Repair & Maintenance	1,393.1	9.2	267.5	613.0
Insurance & Credit	51.4	0.7	24.2	44.1
Gas Service	258.8	2.6	97.0	126.0
Other Retail Trade	584.6	13.6	262.4	362.4
Wholesale Trade	-	-	-	-
Other Local Production of Goods	-	-	-	-
Total Direct Effects	5,539.1	95.1	1,849.4	3,000.7
Secondary Effects	1,800.5	22.2	548.4	961.1
Total Effects	7,339.6	117.2	2,397.8	3,961.8

Economic Impact Analysis

WELLFLEET MARINA

Analysis conducted using the on-line Boating Economic Impact Model
developed by

Drs. Ed Mahoney (mahoneye@msu.edu), Dan Stynes
(stynes@msu.edu) and Yue Cui (cuiyue@msu.edu)

Recreation Marine Research Center

Michigan State University

The On-line Boating Economic Impact Model is sponsored by
Association of Marina Industries, Great Lakes Commission, U.S. Coast Guard and the
National Marine Manufacturers Association

June 29, 2015

Executive Summary

This report provides estimates of the economic impacts of the WELLFLEET MARINA. The marina produces direct and indirect revenues for many different types of businesses (e.g., retail, restaurants) in the local area. It also contributes to the visual character of the waterfront and contributes to the community's quality of life. Unfortunately, the economic contributions of marinas like this often go unrecognized or are undervalued. This report provides estimates of the direct and indirect economic impacts associated with the spending by the owners of boats that rent seasonal and annual slips, and the direct spending by transient boaters (tourists) staying at the WELLFLEET MARINA.

Economic impacts are estimated using a boater spending and impact model. Boater spending averages on a per day basis for trip spending and per boat basis for annual craft spending are adapted from spending profiles developed from two different national boater surveys conducted by the Recreation Marine Research Center (RMRC) at Michigan State University in 2005. Estimates of annual craft spending for boats kept at marinas are taken from a national survey of more than 12,500 boaters conducted in 2005 and 2006.

Annual craft spending averages were price adjusted to 2007 using consumer price indices for each spending category. Annual craft spending includes storage (during the boat season), insurance, taxes, replacement outboard motors, trailers, fuel, repairs & marine services and accessories. Loan payments for the year are included, but purchases of new boats are not. Since most boats, trailers, motors and other equipment purchased by boaters are not manufactured in the local area, only the retail and wholesale margins on these purchases are included as local impacts.

Trip spending estimates, including what boaters spend on groceries, lodging, entertainment and restaurants, came from a 2006 national survey of more than 6,000 boaters that gathered information about more than 13,000 boating trips. Trip spending includes what boaters spend on boating trips for fuel, groceries, lodging, entertainment, and restaurants. Spending averages were price inflated to 2007. Spending profiles were developed for different size and type boats in different regions of the country. The craft and trip spending averages used here are for boats kept at marinas in North East Coastal Region.

The spending averages are applied to the number of slip renters and transient boaters at WELLFLEET MARINA. Distinct spending averages are used for power and sail boats divided into two size classes. Spending is divided into 12 trip spending categories and eight craft spending categories.

Total spending by these boaters who rent slips seasonally or annually or are transient renters is applied to a set of economic ratios and multipliers that reflect the local economy. The impact region is defined to include roughly a 30 mile radius of the marina. Economic ratios and multipliers were estimated with the IMPLAN input-output modeling system. Because the size of multipliers differ depending on the size and nature (e.g., types of businesses) of the local economy distinct sets of multipliers were developed for rural (population less than 100,000), small metro (populations 100,000-500,000), and larger metro regions (population over 500,000). Multipliers representing "Small Metro Areas" were selected for this analysis. Economic ratios translate the spending into wages and salaries and jobs supported by the boater spending. Multipliers estimate the secondary effects as this spending flows through the local economy. Total effects include the (1) direct sales, jobs and income in firms selling directly to boaters, (2) indirect effects in firms that supply goods and services to boating businesses, and (3) induced effects resulting from household spending of income earned directly or indirectly from boater spending.

A total of 490 boats are being kept at WELLFLEET MARINA during 2007. This includes 337 power boats ranging from 16' to more than 40' and 153 sailboats. It is estimated that the 490 seasonal/annual slip renters will take their boats out on the water a total of 15,605 days in 2007. The average number of boating days per boat is 31 days. The marina rented slips to transient boaters a total of 620 nights in 2007.

The boaters who rent slips for the season or annually contribute to the local and state economies through spending on the upkeep and maintenance of their craft and also spending on their boating trips. Boaters who keep their boats in slips will spend about 3,409 thousand dollars annually on craft upkeep and maintenance not counting fuel. This spending is broken down as follows: 29% on slip/storage fees, 23% to loan payments including principal and interest, 22% for repairs, 9% for insurance, and 14% for accessories. Combining trip and craft spending, a typical boat spends \$1,782 per year on boating trips and \$3,071 per year on craft-related expenses.

Total trip spending by these boats kept at the marina is estimated to be \$2 million, with 14% spent on marina services, 20% on restaurants and bars, 17% groceries, 8% auto fuel and 32% boat fuel.

The direct economic effects on the local economy of this spending are 62 jobs¹, \$1.0 million in labor income and \$1.7 million in value added². The marina's non-labor operating costs such as purchases of supplies and services from other firms are not included as value added by the marina. Direct effects cover the impacts in businesses selling goods and services directly to these boaters. This includes 30 jobs in marina services, 11 jobs in restaurants and bars, and 8 jobs in retail stores.

Including secondary effects, the total impact on the local economy is 82 jobs, \$1.5 million in labor income and \$2.5 million in value added.

¹ Jobs are not full time equivalents, but include full time and part time jobs. Seasonal positions are adjusted to an annual basis, e.g., two jobs for six months equates to one job on an annual basis. Labor income includes wages and salaries, payroll benefits and income of sole proprietors. Value added includes labor income as well as profits and rents and sales taxes and other indirect business taxes.

² Value added is the income accruing to households in the region plus rents and profits of businesses and indirect business taxes. As the name implies, it is the net value added to the region's economy. For example, the value added by a marina includes wages and salaries paid to employees, their payroll benefits, profits of the marina, and sales and other indirect business taxes.

Summary of the Economic Impact Analysis Result

Table 1 - Number of Boats Kept at the Marina and Their Estimated Number of Boating Days

Boat Type and Size	Number of Boats	Average Days Per Boat	Total Boat Days
Power <40'	330	33	10,890
Power 40'+	7	40	280
Sail <40'	151	25	3,775
Sail 40'+	2	20	40
Transient Power	-	-	443
Transient Sail	-	-	177
Total	490	31	15,605

Table 2 - Total Spending on Boat Trips by Boats Kept at the Marina (\$ Thousands)

Category	Total	Percentage
Lodging	19.9	1.0%
Marina services	276.2	14.0%
Restaurant	394.4	19.9%
Groceries	334.3	16.9%
Boat fuel	639.5	32.3%
Auto fuel	163.8	8.3%
Repair & Maintenance	-	-
Marine supplies	-	-
Recreation & Entertainment	58.8	3.0%
Shopping	55.8	2.8%
Other services	-	-
Other goods	35.4	1.8%
Total	1,978.1	100%

Table 3 – Total Annual Craft Spending by Boats Kept at the Marina (\$ Thousands)

Category	Total	Percentage
Slip	1,003.5	29.4%
Loan Payments	783.1	23.0%
Motors	10.6	0.3%
Trailers	6.7	0.2%
Insurance	291.0	8.5%
Repairs	746.3	21.9%
Accessories	491.0	14.4%
Taxes	77.0	2.3%
Total	3,409.2	100%

Table 4 – Economic Impacts of Trips Spending and Annual Craft Spending by Boats Kept at the Marina

	Trip Spending	Annual Craft Spending	Total
Direct Effects			
Sales (\$ Thousands)	1,044.3	2,018.9	3,063.1
Jobs	26.2	36.1	62.3
Labor Income (\$ Thousands)	405.2	638.5	1,043.7
Value Added (\$ Thousands)	551.9	1,135.9	1,687.9
Total Effects			
Sales (\$ Thousands)	1,570.5	2,943.5	4,514.0
Jobs	33.3	48.6	81.9
Labor Income (\$ Thousands)	574.5	940.6	1,515.2
Value Added (\$ Thousands)	842.8	1,641.9	2,484.6

Table 5 - Economic Impact of both Craft and Trips Spending by Boats Kept at the Marina

Sector/Spending category	Sales (\$ Thousands)	Jobs	Labor Income (\$ Thousands)	Value Added (\$ Thousands)
Direct Effects				
Lodging	19.9	0.5	8.7	14.1
Marina Services	1,279.7	29.6	469.6	787.0
Restaurant	394.4	11.4	155.0	175.1
Recreation & Entertainment	58.8	1.4	21.6	36.2
Repair & Maintenance	746.3	6.3	142.5	327.6
Insurance&Credit	68.4	1.0	32.7	58.7
Gas Service	179.1	3.8	69.3	90.1
Other Retail Trade	316.6	8.5	144.2	199.1
Wholesale Trade	-	-	-	-
Other Local Production of Goods	-	-	-	-
Total Direct Effects	3,063.1	62.3	1,043.7	1,687.9
Secondary Effects	1,450.9	19.5	471.4	796.8
Total Effects	4,514.0	81.9	1,515.2	2,484.6

Detailed Results of the Economic Impact Analysis

Input to the Economic Impact Analysis Model

Table 1 - Number of Boats Kept at the Marina and Their Estimated Number of Boating Days

Boat Type and Size	Number of Boats	Average Days Per Boat	Total Boat Days
Power <40'	330	33	10,890
Power 40'+	7	40	280
Sail <40'	151	25	3,775
Sail 40'+	2	20	40
Transient Power	-	-	443
Transient Sail	-	-	177
Total	490	31	15,605

Spending Profiles by Boats Kept at the Marina

Table 1 - Average Spending on Boat Trips by Boats Kept at the Marina (\$ Per Boat Day)

Category	Boat Type and Size					
	Power <40'	Power 40'+	Sail <40'	Sail 40'+	Transient Power	Transient Sail
Lodging	1.0	0.3	1.6	2.4	4.6	4.5
Marina services	18.5	27.4	11.0	19.5	43.7	30.5
Restaurant	26.4	39.8	17.7	33.3	47.7	36.4
Groceries	22.1	36.2	16.3	27.3	34.9	30.4
Boat fuel	51.9	77.7	4.5	10.1	75.1	10.6
Auto fuel	11.6	10.9	7.3	8.4	11.7	7.5
Repair & Maintenance	-	-	-	-	-	-
Marine supplies	-	-	-	-	-	-
Recreation & Entertainment	4.0	4.8	2.2	7.0	9.2	6.9
Shopping	3.1	6.7	3.1	5.6	13.7	12.4
Other services	-	-	-	-	-	-
Other goods	2.5	1.9	2.0	2.9	-	-
Total	141.1	205.7	65.7	116.5	240.6	139.2

Table 2 - Average Spending on Annual Craft Spending by Boats Kept at the Marina (\$ Per Boat Per Year)

Category	Boat Type and Size			
	Power <40'	Power 40'+	Sail <40'	Sail 40'+
Slip	1,886.5	5,332.4	2,215.5	4,523.4
Loan Payments	1,572.4	10,864.9	1,185.1	4,585.0
Motors	26.1	39.3	11.4	14.0
Trailers	17.0	8.7	6.9	6.1
Insurance	584.2	2,803.2	492.7	2,120.8
Repairs	1,424.0	5,891.6	1,496.4	4,571.8
Accessories	907.6	3,780.2	1,045.3	3,603.4
Taxes	160.7	920.0	112.7	244.0
Total	6,578.5	29,640.3	6,566.0	19,668.5

Estimates of Total Spending by Boats Kept at the Marina

Table 1 - Total Spending on Boat Trip by Boats Kept at the Marina (\$ Thousands)

Category	Boat Type and Size						Total	Percentage
	Power <40'	Power 40'+	Sail <40'	Sail 40'+	Transient Power	Transient Sail		
Lodging	10.9	0.1	6.0	0.1	2.0	0.8	19.9	1%
Marina services	201.5	7.7	41.5	0.8	19.4	5.4	276.2	14%
Restaurant	287.5	11.1	66.8	1.3	21.1	6.4	394.4	20%
Groceries	240.7	10.1	61.5	1.1	15.5	5.4	334.3	17%
Boat fuel	565.2	21.8	17.0	0.4	33.3	1.9	639.5	32%
Auto fuel	126.3	3.1	27.6	0.3	5.2	1.3	163.8	8%
Repair & Maintenance	-	-	-	-	-	-	-	-
Marine supplies	-	-	-	-	-	-	-	-
Recreation & Entertainment	43.6	1.3	8.3	0.3	4.1	1.2	58.8	3%
Shopping	33.8	1.9	11.7	0.2	6.1	2.2	55.8	3%
Other services	-	-	-	-	-	-	-	-
Other goods	27.2	0.5	7.6	0.1	-	-	35.4	2%
Total	1,536.6	57.6	248.0	4.7	106.6	24.6	1,978.1	100%

Table 2 - Total Spending on Average Annual Craft Spending by Boats Kept at the Marina (\$ Thousands)

Category	Boat Type and Size				Total	Percentage
	Power <40'	Power 40'+	Sail <40'	Sail 40'+		
Slip	622.5	37.3	334.5	9.0	1,003.5	29%
Loan Payments	518.9	76.1	179.0	9.2	783.1	23%
Motors	8.6	0.3	1.7	0.0	10.6	0%
Trailers	5.6	0.1	1.0	0.0	6.7	0%
Insurance	192.8	19.6	74.4	4.2	291.0	9%
Repairs	469.9	41.2	226.0	9.1	746.3	22%
Accessories	299.5	26.5	157.8	7.2	491.0	14%
Taxes	53.0	6.4	17.0	0.5	77.0	2%
Total	3,073.2	115.2	496.0	9.3	3,409.2	100%

Table 3 - Numbers of Boats, Boating Days and Craft and Trip Spending by Different Size and Type Boats Kept at the Marina

Category	Boat Type and Size						Total
	Power <40'	Power 40'+	Sail <40'	Sail 40'+	Transient Power	Transient Sail	
Number of boats	330	7	151	2	-	-	490
Annual craft spending per boat	\$6,579	\$29,640	\$6,566	\$19,669	-	-	\$3,071
Total craft spending (\$ Thousands)	\$2,171	\$207	\$991	\$39	-	-	\$3,409
Average days per boat	33	40	25	20	-	-	31
Total boat days	10,890	280	3,775	40	443	177	15,605
Average trip spending per boat day	\$141	\$206	\$66	\$117	\$241	\$139	\$127
Total trip spending per boat per year	\$4,656	\$8,228	\$1,643	\$2,330	\$241	\$139	\$1,782
Total trip spending (\$ Thousands)	\$1,537	\$58	\$248	\$5	\$107	\$25	\$1,978
Total craft & trip spending per boat per year	\$11,235	\$37,868	\$8,209	\$21,999	\$241	\$139	\$4,853
Total craft & trip spending (\$ Thousands)	\$3,707	\$265	\$1,239	\$44	\$107	\$25	\$5,387
Pct of spending by boats	69%	5%	23%	1%	2%	0%	100%
Pct of boats	30%	1%	14%	0%	40%	16%	100%
Pct of boat days by boats	70%	2%	24%	0%	3%	1%	100%
Pct of spending on trips by boats	41%	22%	20%	11%	100%	100%	37%

Economic Impact Result/Tables

Table 1 - Economic Impact of Trips Spending by Boats Kept at the Marina

Sector/Spending category	Sales (\$ Thousands)	Jobs	Labor Income (\$ Thousands)	Value Added (\$ Thousands)
Direct Effects				
Lodging	19.9	0.5	8.7	14.1
Marina Services	276.2	6.4	101.4	169.9
Restaurant	394.4	11.4	155.0	175.1
Recreation & Entertainment	58.8	1.4	21.6	36.2
Repair & Maintenance	-	-	-	-
Grocery Stores (Margin&Sales)	84.6	2.0	34.4	45.9
Gas Service Stations (Margin&Sales)	179.1	3.8	69.3	90.1
Sporting Goods/Equipment Retail Margins	-	-	-	-
Other Retail Trade (Margins&Sales)	31.3	0.9	14.8	20.7
Wholesale Trade (Margins&Sales)	-	-	-	-
Local Production of Goods	-	-	-	-
Total Direct Effects	1,044.3	26.2	405.2	551.9
Secondary Effects	526.2	7.1	169.4	290.8
Total Effects	1,570.5	33.3	574.5	842.8

Table 2 - Economic Impact of Annual Craft Spending by Boats Kept at the Marina

Sector/Spending category	Sales (\$ Thousands)	Jobs	Labor Income (\$ Thousands)	Value Added (\$ Thousands)
Direct Effects				
Boat Manufacture	-	-	-	-
Slip	1,003.5	23.2	368.3	617.1
Repairs	746.3	6.3	142.5	327.6
Insurance	58.2	1.0	28.5	50.6
Credit Intermediaries	10.2	0.1	4.2	8.1
Retail Margins	200.7	5.6	95.0	132.5
Wholesale Trade	-	-	-	-
Manufacture: Motors, Trailers, Accessories	-	-	-	-
Total Direct Effects	2,018.9	36.1	638.5	1,135.9
Secondary Effects	924.7	12.4	302.1	506.0
Total Effects	2,943.5	48.6	940.6	1,641.9

Table 3 - Economic Impact of both Trip and Annual Craft Spending by Boats Kept at the Marina

Sector/Spending category	Sales (\$ Thousands)	Jobs	Labor Income (\$ Thousands)	Value Added (\$ Thousands)
Direct Effects				
Lodging	19.9	0.5	8.7	14.1
Marina Services	1,279.7	29.6	469.6	787.0
Restaurant	394.4	11.4	155.0	175.1
Recreation & Entertainment	58.8	1.4	21.6	36.2
Repair & Maintenance	746.3	6.3	142.5	327.6
Insurance&Credit	68.4	1.0	32.7	58.7
Gas Service	179.1	3.8	69.3	90.1
Other Retail Trade	316.6	8.5	144.2	199.1
Wholesale Trade	-	-	-	-
Other Local Production of Goods	-	-	-	-
Total Direct Effects	3,063.1	62.3	1,043.7	1,687.9
Secondary Effects	1,450.9	19.5	471.4	796.8
Total Effects	4,514.0	81.9	1,515.2	2,484.6

Shown below are multipliers selected in this economic impact analysis.

Sector	IMPLAN Sector	Jobs/ MM sales	Direct effects				Total effects multipliers					RPC
			Personal Inc/sales	Property Inc/sales	Value Added /sales	Sales II	JobsII/ MMsales	InclI/ sales	VA II/sales	Sales I		
Hotels and motels* including casino hotels	479	22.810	0.437	0.183	0.708	1.431	28.772	0.580	0.954	1.153	100%	
Marina Services	478	23.102	0.367	0.198	0.615	1.459	29.526	0.519	0.874	1.208	100%	
Food services and drinking places	481	28.803	0.393	-0.004	0.444	1.524	35.449	0.550	0.719	1.259	100%	
Other asement* gambling* and recreation industri	478	23.102	0.367	0.198	0.615	1.459	29.526	0.519	0.874	1.208	100%	
Automotive repair and maintenance* except car wash	483	8.472	0.191	0.224	0.439	1.459	14.216	0.337	0.674	1.296	100%	
Food and beverage stores	405	23.367	0.407	0.046	0.543	1.527	30.735	0.587	0.847	1.246	100%	
Gasoline stations	407	21.183	0.387	0.012	0.503	1.544	28.793	0.573	0.817	1.268	100%	
Sporting goods* hobby* book and sic stores	409	26.840	0.346	0.048	0.475	1.538	34.372	0.531	0.786	1.284	100%	
General merchandise stores	410	28.245	0.473	0.083	0.661	1.485	35.018	0.637	0.941	1.183	100%	
Nondep credit intermediaries	425	6.200	0.410	0.325	0.791	1.355	11.209	0.530	1.002	1.068	20%	
Other accommodations	480	7.811	0.121	0.162	0.290	1.569	15.366	0.307	0.609	1.420	100%	
Wholesale trade	390	10.593	0.377	0.095	0.659	1.418	16.522	0.521	0.901	1.170	-	
Insurance agencies* brokerages* and related	428	16.390	0.490	0.380	0.870	1.350	21.400	0.600	1.080	1.070	20%	
Boat building	358	9.552	0.220	0.148	0.341	1.337	13.559	0.327	0.525	1.178	-	
Other engine equipment manufacturing	286	3.400	0.150	0.130	0.290	1.337	4.830	0.230	0.470	1.178	-	
Travel trailer and camper manufacturing	349	6.411	0.183	0.067	0.249	1.429	10.887	0.307	0.449	1.283	-	
Sporting and athletic goods manufacturing	381	6.714	0.185	0.061	0.249	1.505	12.645	0.351	0.518	1.331	-	
auto dealers	401	14.390	0.489	0.030	0.611	1.528	21.773	0.668	0.916	1.209	100%	
All other food manufacturing	84	4.755	0.125	0.082	0.191	1.523	10.743	0.271	0.449	1.389	-	
Cut and sew apparel manufacturing	107	8.780	0.182	0.122	0.290	1.348	13.174	0.296	0.484	1.205	-	

Terms used in this Economic Impact Analysis

Term	Definition
Sales	Sales of firms within the region resulting from boater spending.
Jobs	The number of jobs in the region supported by the boater spending. Job estimates are not full time equivalents, but include part time positions. Seasonal jobs are adjusted to annual equivalents, e.g. four jobs for three months each equates to one job.
Income	Labor income, including wages and salaries, payroll benefits and incomes of sole proprietor's
Value added	Income accruing to households in the region plus rents and profits of businesses and indirect business taxes. As the name implies, it is the net value added to the region's economy. For example, the value added by a marina includes wages and salaries paid to employees, their payroll benefits, profits of the marina, and sales and other indirect business taxes. The marina's non-labor operating costs such as purchases of supplies and services from other firms are not included as value added by the marina.
Direct effects	Direct effects are the changes in sales, income and jobs in those business or agencies that directly receive the boater spending.
Secondary effects	These are the changes in the economic activity in the region that result from the re-circulation of the money spent by boaters. Secondary effects include indirect and induced effects.
Indirect effects	Changes in sales, income and jobs in industries that supply goods and services to the businesses that sell directly to boaters. For example, restaurant supply firms benefit from boater spending in restaurants.
Induced effects	Changes in economic activity in the region resulting from household spending of income earned through a direct or indirect effect of the boater spending. For example, marina employees live in the region and spend their incomes on housing, groceries, education, clothing and other goods and services.
Total effects	Sum of direct, indirect and induced effects. <ul style="list-style-type: none"> ▪ Direct effects accrue largely to boating and tourism-related businesses in the area ▪ Indirect effects accrue to a broader set of businesses that serve these firms. ▪ Induced effects are distributed widely across a variety of local businesses that provide goods and services to households in the region.
Multipliers	Multipliers capture the size of the total effects relative to the direct effects. A sales multiplier of 2.0 means that for every dollar of direct sales, there is another dollar of sales in the region due to secondary effects. Direct effect multipliers convert sales to the associated income, jobs and value added by using simple ratios. For example, nationally 34 cents of every dollar of sales in restaurants goes to wages and salaries and 48 cents to value added. There are about 22 jobs for every million dollars in restaurant sales. These ratios are used to convert estimates of sales in each economic sector to the associated income, jobs, and value added. The job to sales ratios vary from region to region.

Wellfleet SPAT, Shellfish Promotion and Tasting, Inc.
Producers of the Wellfleet OysterFest

I. Wellfleet Oysters - A 200-year-old Tradition

Wellfleet, Cape Cod, Massachusetts, has been considered the home of one of the world's great oyster beds for generations. When Samuel Champlain explored Cape Cod's waters in 1605, there were so many oysters in Wellfleet Harbor that he called it "oyster bay." Over the next 200 years, a thriving oyster industry emerged. But by the beginning of the 1800s, the native oyster population was nearly depleted. Overfishing was the likely cause—oysters were popular not only for eating, but also for use as fertilizer and in construction. Disease or habitat destruction due to removal of shell substrate for spawn to settle on, may also have been factors.

By 1870 a new era had taken hold with over 100 million oysters being shipped from Virginia, Chesapeake Bay, Long Island and New Haven to acquire the Wellfleet taste for several months before being sent to market. At the peak, around 40 million oysters were being sold from Wellfleet Harbor and a barrel manufacturing plant was turning out 300 barrels per day to hold shipments. This was the beginning of the aquaculture industry in Wellfleet.

One of the greatest contributions to the science of aquaculture goes way back to the turn of the century. When Wellfleetian, David Belding studied the local shellfish in his laboratory and published a landmark study chronicling the life, growth, and cultivation of shellfish. His findings are still used by modern aquaculturists.

Now, 210 acres of Wellfleet Harbor is dedicated to grants— or pieces of town-owned land that are leased to commercial shellfishermen for oyster and clam farming. Approximately 100 locals are in the shellfishing trade many of which harvest from the wild. In 2014, it is estimated that the

town's commercial oyster catch was over 21,000 bushels. At 375 oysters per bushel, that's close to 8 million oysters with a market value of over \$4 million or nearly 1/3 of the Massachusetts shellfish industry.

The town of Wellfleet also stocks and maintains a special area for recreational shellfishing. Grant tours to educate the public about aquaculture are offered throughout the season by SPAT and the growers themselves. Both are popular activities for locals and tourists alike.

II . The Wellfleet OysterFest – Bringing the Community Together

This history created a fertile environment for the Wellfleet OysterFest to emerge. The 'Fest, as it is affectionately dubbed, is now in its 15th year and brings people together for a two-day celebration of the town's famous oysters and clams.

The first Wellfleet OysterFest was held in the fall of 2001 as an impromptu event to bring the community together and celebrate the town's shellfishing tradition and the fruits of the season. It awakened a tremendous amount of community spirit and interest in spreading the word about the Wellfleet's delicious shellfish. It also made clear to the community the importance of educating the public about the strenuous and careful work that goes into getting great shellfish to America's tables. Within a year, a group of volunteers chartered the non-profit organization – SPAT, Shellfish Promotion and Tasting, Inc. - and made community education its primary goal, while ensuring the future of the festival.

Even the name honors the oyster. The acronym SPAT is also the name for a newly attached baby oyster.

Over the years, the event grew organically to include Raw Bars operated by Wellfleet shellfishermen, tours of local aquaculture farms and Wellfleet's oyster propagation site, educational lectures on various marine topics, seafood cooking demonstrations, a Fine Arts and Crafts Fair, non-seafood

food vendors, family activities, musical performances, road races and the premier event, an Oyster Shucking Competition.

III. The 'Fest Supports the Local Economy

The event now attracts over 25,000 attendees coming to experience Wellfleet's vibrant, coastal community and attractive vacation destination. The great influx of thousands of visitors generates tremendous revenue for Wellfleet and the Outer Cape community. The 'Fest provides a venue for the shellfishermen, local businesses, the Town of Wellfleet, charitable organizations as well as national, regional and local environmental organizations. Conservative estimates project that over \$1 million tourism dollars are spent locally during the event.

For example, last year 13 raw bars were featured at the 'Fest. They sold an estimated 120,000 oysters and 10,000 clams, generating \$180,000 in revenue over the two days.

The Cape Cod economy relies on tourism. The Wellfleet OysterFest is now held annually the weekend after Columbus Day and has become the premiere fall festival on the Cape essentially extending the tourist season and solidifying the Wellfleet brand.

The vitality of this event and its environmental messages make it desirable marketing opportunity for sponsoring businesses, public figures and a variety of members from the media. Each year, the 'Fest hosts a film crew or other celebrity.

Proceeds from the 'Fest are directly reinvested back to the community in the form of a local college scholarship to a graduating senior pursuing a degree in the marine sciences, community grant awards and other initiatives to help the shellfishing industry. These initiatives address many beneficial outcomes – from current concerns like *Vibrio Parahaemolyticus* to

longer terms threats like sea level rise and Ocean Acidification. These 'No Regret Strategies' include:

- Investing in education for the sustainability of our community
- Contracting a Shellfish & Aquaculture Specialist
- Investing into the restructure of a local seed hatchery and research center
- Contributing funds to enable a benthic mapping project
- Partnering with the Town of Wellfleet on an Oyster Propagation site

IV. The 'Fest Helps the Environment

The OysterFest strives to be a 'green event' by recycling as much as possible, but most importantly all of the oyster and clamshells. During the 2014 Festival, nearly 6 tons of that shell were recycled (that's a 95% recapture rate by weight). As a result, the Festival's total solid waste stream was reduced by 36%. These shells are then reintroduced into Wellfleet Harbor to create habitat for shellfish and other marine species, enhance the amount of spat in the harbor, improve water quality by filtering particles and pollutants, and to protect the shoreline by creating a natural barrier from erosion.

The Shell Recycling program was developed in partnership with the NOAA and the Town of Wellfleet Wastewater Committee. Over the past three years, the OysterFest and its partners have reintroduced over 25 tons of shells back into the harbor. Combined with Town of Wellfleet's "cultching efforts" including another 2,500 tons of shell, we have restored over 35 acres of habitat!

In 2012, SPAT and The Town of Wellfleet were acknowledged for this unprecedented effort and were awarded a Municipal Innovation Award.

This designation recognized the combined recycling and habitat restoration effort of SPAT and its collaborators.

(pause – let people read quote)

Two acres of this larger effort, is designated as an Oyster Propagation site. This is the first experimental no-take shellfish sanctuary which is supported by the local shellfish constable and Division of Marine Fisheries as a means of evaluating the environmental benefits with a particular focus on water quality. This site is being monitored by UMass Boston Green Harbors Project for biological changes and the Provincetown Center for Coastal Studies for water quality assessment. Research shows an increase in biodiversity and oyster population by 90%, establishing 6 million oysters in three years that provided a 70% nitrogen sink, improving the water quality in this area.

Because of Wellfleet's unique environment and this restoration site, scientists from federal, state and private entities come to Wellfleet to conduct research. This long-term monitoring in Wellfleet harbor will provide a data set from a high resource area for comparative study in the future. We may not know what the future brings or how to handle climate stressors but one thing is clear - we need significant science to inform our actions.

V. Future

SPAT is committed to growing and sustaining the shellfishing and aquaculture industries while helping the environment. We have created a vibrant model, which includes a fundraising event to support the local economy, philanthropic giving and environmental restoration and research efforts.

SPAT visions a healthy ecosystem and a thriving shellfishing industry exceeding its peak production from the mid 1600's – an industry that provides a sustainable livelihood for shellfishermen, a sustainable food source, and sustainable environment.

Town of Wellfleet **Shellfish Advisory Board**

To: Wellfleet Board of Selectmen (BOS)
From: Shellfish Advisory Board (SAB)
Cc: Harry Terkanian –Town Administrator

June 9, 2015

Re: Comments on proposed harbor dredging

Dear Board Members:

At our June 8, 2015 SAB meeting it was brought to our attention that our input was being sought by the BOS regarding how a proposed dredging of our harbor might benefit the shellfish community. The following points were discussed and agreed upon by the SAB as compelling reasons why dredging is prudent at this time. The reasons are:

1. The accumulating anoxic sediment, known as black mayo poses a risk to the overall health of our shellfish – specifically by the possibility of it sliding off the top of the current channel banks and smothering many of those oysters that have begun to establish themselves in Chipman's Cove and Duck Creek.
2. Improved water flow into Duck Creek will help efforts to establish a healthy oyster reef that's currently receiving cultching by the Town, to aid in improving water quality, and further the distribution of oyster larvae in the area of the beds to the east of the marina and throughout the harbor.
3. To help ease to some extent the negative effects some of the manmade obstructions may be causing, as a result of among other things - the diking of the Herring River, and installation of a clapper valve where Commercial Street crosses Mayo Creek.
4. Increasing the tidal access times at the launch ramp will help ease crowding and allow those shell fishermen who depend on access to the ramp and slips to get their product off the boat and on to a dealer in a timely manner – especially during vibrio control months when time before refrigeration is critical.

We urge the Board of Selectmen to support dredging of the harbor at this time for these reasons.

Sincerely,

John Duane on behalf of:

The Wellfleet Shellfish Advisory Board

Barbara Austin, Barbara Brennessel, John Duane, Joel Fox, James O'Connell
Helen Miranda Wilson, Tom Siggia, Rebecca Taylor, Jake Puffer (alternate).



Cape and Islands Maritime Response System

Standard Operating Procedure

Cape and Islands Maritime Response System

Standard Operating Procedure

Purpose

This manual provides an overview of the Mutual Aid Program established under the jurisdictions that make up the Cape and Islands, Harbormasters, other local response entities and the United States Coast Guard.

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Section 1.1

General

1.1.1 Overview

The mission of the Cape and Islands Maritime Mutual Aid Program (CIMRS) is to enhance the pollution and search and rescue response efforts whose goals, from a humanitarian perspective, is to prevent the loss of a life at sea and protect the maritime environment. Through joint partnerships between local, state and federal agencies CIMRS maintains a readiness posture that reduces response times, employs a consolidated communications system, increases the number of available maritime response assets, improves search and rescue effectiveness and provides a greater sense of security amongst the waters of Cape Cod.

1.1.2 Scope

This guideline shall apply to all members of the *Cape and Island Maritime Mutual Aid Program* responding to any maritime incident that may have the need for mutual aid support.

1.1.3 Definitions

AOR: Area of Responsibility
Barnstable County Control: Barnstable County Dispatch Center
USCG/CG: Coast Guard
CIMRS: Cape and Islands Maritime Response System
Command Center: CG Sector Southeastern New England
NM: Nautical Miles
Response Asset: SRU or vessel responding to incident
SAR: Search and Rescue

Section 2.1

Search and Rescue Procedures

2.1.1 Initiating CIMRS:

The following procedure outlines the activation process for maritime incidents that are classified as Search and Rescue (i.e. – person in the water, overturned vessel, fire, unmanned vessel, taking on water, etc.)

Request for assistance received by:

United States Coast Guard¹

1. Will contact Barnstable County Control based on information received from the person(s) in distress or the reporting party.
2. Request activation of CIMRS.
3. Request a specific number of assets or use existing run card protocols.

Local Fire/Police Department²

1. Gather the following information before transferring to Barnstable County Control:
 - a. Position
 - b. Nature of Distress
 - c. Description of the vessel
 - d. Number of persons on board
 - e. On scene weather (if available)
2. Once the above has been gathered contact Barnstable County Control and request activation of CIMRS (BCSO will contact USCG).

Barnstable County Control

1. Gather as much information before notifying the USCG:
 - a. Position
 - b. Nature of Distress
 - c. Description of the vessel
 - d. Number of persons on board
 - e. On scene weather
2. Once the above has been gathered contact Command Center at 508-457-3211.
3. Dispatch local response assets based on run card protocols.

¹ Cellular 911 calls go directly to State Police who will contact the Coast Guard per their SOP. USCG will be considered the receiving entity.

² The information being gathered is known as the Coast Guard "Top Five" and may already be questions that exist within a dispatch center's standard operating procedures. These questions are maritime specific and are important to ensuring an effective and timely response. Every effort should be made to acquire this information.

2.1.2 Notifications:

When the CIMRS is activated, a notification of a maritime incident will be sent out via text page from Barnstable County Control. This will be an **informational** text page only and does not direct any specific municipality or response asset to launch. Response assets are launched based on established run cards. Recipients of the text page will vary depending on the location of the incident.

The notification will include the following information:³

- Maritime District
- Type of call (SAR, Oil spill)
- Nature of call (person in water, vessel fire, flare sighting, etc)
- Number of Persons involved
- Approximate location (geographic position)⁴
- Contact Coast Guard on CH 22a for assignments

Example:

- "Chatham District, SAR, 1 vessel sinking 2 person on board, 2.5NM East Chatham Bar, Contact USCG 22a or 508-457-3211."
- "Falmouth District, SAR, 4 PIW, .5NM off Silver Beach, Contact USCG 22a or 508-457-3211."

2.1.3 Mission Coordination:

The Coast Guard is responsible for the coordination of all Search and Rescue missions on all navigable waters. Response assets launched or dispatched as part of the CIMRS should contact Command Center on VHF-FM Channel 22a (157.100 MHz⁵) to receive their tasking.

All response assets should maintain regular communications with their respective dispatch centers. Should a response asset find themselves outside their dispatch centers communication range it is recommended they contact Command Center or the On Scene Commander and request they maintain their communications until conclusion of the mission.⁶

If Command Center determines more response assets are required they shall contact Barnstable County Control and request additional assets.

Response assets should always be aware of their environment and weather. Should an asset determine the weather or environment exceeds their vessel's parameters they should contact Command Center and notify them of their intent to return to base due to weather parameters exceeded. Safety is number one priority when responding to an incident.

³ **Warning:** Most text message programs can only contain 130 characters. Only use common terms.

⁴ Geographic location should be used in text pages to avoid confusion. If a GPS position is given by reporting parties ensure the USCG receives it and they can translate it into a geographic reference.

⁵ All response assets should ensure they have the required maritime frequencies programmed into their radios.

⁶ All non-CG assets must check in every 30 minutes when Command Center or On Scene Commander has their guard.

Section 3.1

Pollution Procedures

3.1.1 Initiating CIMRS:

The following procedure outlines the activation process for maritime incidents that are classified as pollution (i.e. – gasoline, diesel, hydraulic fluids, Hazmat, etc.)

Request for assistance received by:

United States Coast Guard

4. Will contact Barnstable County Control based on information received from the reporting party.
5. Request activation of CIMRS.
6. Request a specific number of assets or use existing run card protocols.

Local Fire/Police Department

3. Gather the following information before transferring to Barnstable County Control:
 - a. Location of spill
 - b. Approximate size of spill
 - c. Source of the spill, if known
 - d. Reporting party name, call back number
4. Once the above has been gathered contact Barnstable County Control and request activation of CIMRS (BCSO will contact USCG).

Barnstable County Control

4. Gather the following information before notifying the USCG:
 - a. Location of spill
 - b. Approximate size of spill
 - c. Source of the spill, if known
 - d. Reporting party name, call back number
 5. Once the above has been gathered contact Command Center at 508-457-3211.
 6. Dispatch local response assets based on municipality run cards.
-

3.1.2 Notifications:

When the CIMRS is activated, a notification of a maritime incident will be sent out via text page from Barnstable County Control. This will be an **informational** text page only and does not direct any specific municipality or response asset to launch. Response assets are launched based on established run cards. Recipients of the text page will vary depending on the location of the incident.

The notification will include the following information:⁷

- Maritime District
- Type of call (pollution or Hazmat)
- Nature of call (gasoline/diesel discharge, hydraulic fluid, etc.)
- Source, if known
- Approximate location (geographic position, GPS Position, etc)
- Contact Coast Guard on CH 22a for assignments

Example:

- "Chatham, Oil Spill, 1 vessel sinking, 100x200yd sheen, 1NM East Chatham Bar, Units responding contact USCG on 22a or 508-457-3211."
- "Falmouth District, Oil spill, 200x400yd sheen, no known source, .5NM off Silver Beach, Contact USCG 22a or 508-457-3211."

3.1.3 Mission Coordination:

The Coast Guard is responsible for the investigation of all pollution incidents that occur in a navigable waterway. Response assets launched or dispatched as part of the CIMRS should contact Command Center on VHF-FM Channel 22a (157.100 MHz⁸) to receive their tasking.

⁷ **Warning:** Most text message programs can only contain 130 characters. Only use common terms.

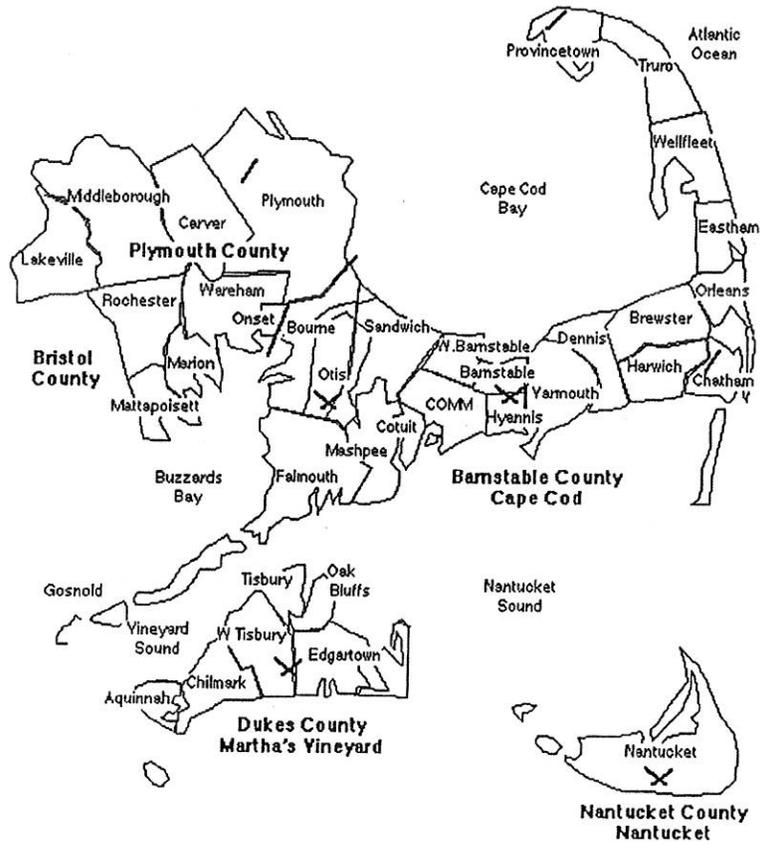
⁸ All response assets should ensure they have the required maritime frequencies programmed into their radios.

Section 4.1

Appendix

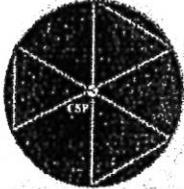
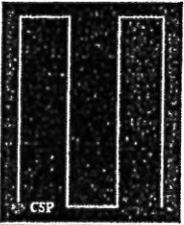
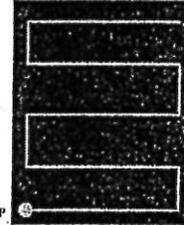
4.1.1 CIMRS Map:

Maps displayed are for informational use only. Town jurisdictions are based on the current Barnstable County Mutual Aid agreement and extend out 3NM from the coastline. The CIMRS does not modify, change or update currently existing district boundaries and each town should follow their current standard operating procedures (SOP).



4.1.2 Search Patterns:

This section serves as a reference only to show the different types of search patterns used during a Search and Rescue incident. Vessel operators should follow their Standard Operating Procedures and their NASBLA training when attempting to complete a search pattern at the direction of the On Scene Commander or the Command Center.

<p>Vector Search (Victor Siera)</p>	<ul style="list-style-type: none"> • Must have a <u>good datum</u>. • Used in <u>small search areas</u>. • <u>Small search objects</u> 	
<p>Parallel</p>	<ul style="list-style-type: none"> • Used to cover large search areas • Provides uniform coverage • Usually the best pattern when using multiple search units 	
<p>Creeping Line</p>	<ul style="list-style-type: none"> • Provides <u>uniform coverage</u> of the search area. • <u>Higher probability</u> the search object is <u>at one end</u> of the area than the other. 	
<p>Trackline</p>	<ul style="list-style-type: none"> • Their intended track is the <u>only info available</u>. • <u>Rapid coverage</u> of the search object's proposed track is obtainable • Usually the <u>first</u> physical search for a missing or overdue vessel 	

4.1.3 U.S Maritime VHF Channels:

Channel Number	Ship Transmit MHz	Ship Receive MHz	Use
06	156.300	156.300	Intership Safety
09	156.450	156.450	Boater Calling. Commercial and Non-Commercial.
13	156.650	156.650	Intership Navigation Safety (Bridge-to-bridge). Ships >20m length maintain a listening watch on this channel in US waters.
16	156.800	156.800	International Distress, Safety and Calling. Ships required to carry radio, USCG, and most coast stations maintain a listening watch on this channel.
21a	157.050	157.050	U.S. Coast Guard only
22A*	157.100	157.100	Coast Guard Liaison and Maritime Safety Information Broadcasts. Broadcasts announced on channel 16.
23A	157.150	157.150	U.S. Coast Guard only
81A	157.075	157.075	U.S. Government only - Environmental protection operations.
89A**	157.175	157.175	U.S. Coast Guard only
AIS 1	161.975	161.975	Automatic Identification System (AIS)
AIS 2	162.025	162.025	Automatic Identification System (AIS)
* Ops Frequency ** Training Frequency			

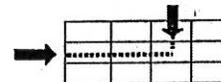
4.1.4 Operational Risk Management:

The Coast Guard uses Operational Risk Management each time it conducts any type of mission. It utilizes a set of factors to determine the overall risk to the mission and becomes a planning tool to identify the risk vs the gain. CIMRS participants are not required to use this risk based model, but it is being made available for informational purposes if any participant would like to use it prior to launching their marine assets. *CIMRS participants should follow their standard operating procedures when it comes to assessing risk.*

GAR (General Assessment of Risk) Model: Factors to Consider When Assessing Risk

SUPERVISION:	Supervisory control should consider how qualified a supervisor is and whether he or she actually is supervising.	
PLANNING:	Preparation and planning should consider how much information is available, how clear it is, and how much time is available to plan the evolution or evaluate the situation.	
CREW SELECTION:	Crew and watchstander selection should consider the experience of the persons performing the specific event.	
CREW FITNESS:	Crew and watchstander fitness should judge the team members' physical and mental state, generally a function of how much rest they've had.	
ENVIRONMENT:	Environment should consider all factors affecting personnel, unit, or resource performance, including time of day, lighting, atmospheric and oceanic conditions, chemical hazards, and proximity to other external and geographic hazards and barriers, among other factors.	
EVENT COMPLEXITY:	Event or evolution complexity considers both the time and resources required to conduct an evolution.	
GREEN (0-23)		AMBER (24-44)
		RED (45-60)
		TOTAL:

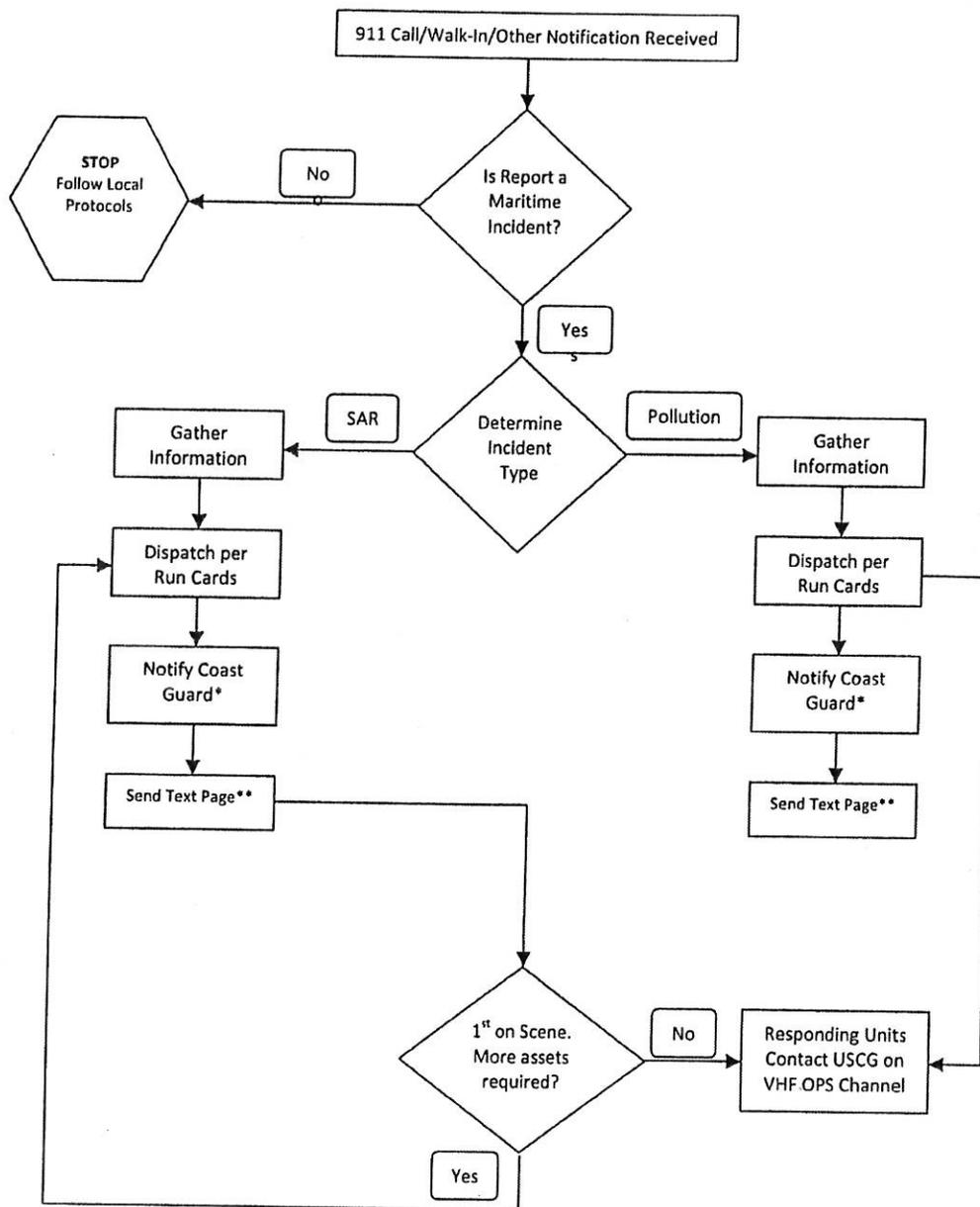
How to use this Chart:



	High Gain	Medium Gain	Low Gain
Medium Risk	Accept the Mission. Continue to monitor Risk Factors and employ Control Options when available.	Accept the Mission. Continue to monitor Risk Factors and employ Control Options when available.	Accept the Mission. Continue to monitor Risk Factors and actively pursue Control Options to reduce Risk.
High Risk	Accept the Mission only with Command endorsement. Communicate Risk vs. Gain to Chain of Command. Actively pursue Control Options to reduce Risk.	Accept the Mission only with Command endorsement. Communicate Risk vs. Gain to Chain of Command. Actively pursue Control Options to reduce Risk.	Do not Accept the Mission. Communicate to Chain of Command. Wait until Risk Factors change or Control Options warrant.

Figure E-2 GAR Risk Management Model

4.1.5 Process Flow Chart:



Notes:

- * If the USCG was not the original reporting party Barnstable County Control will notify USCG.
- ** Text pages will be made for Initial Notification and Conclusion of incident only. Additional text pages may be sent at the discretion of Barnstable County Control.

65 WCC Businesses Within Walking Distance to Harbor:

- 130 West Main
- A Nice Cream Stop
- Adams Masonic Lodge
- Adrift by the Bay
- Aim Thrift Shop, Inc.
- Andre Pottery Studio
- Aunt Sukies B&B
- Bank Square
- Beach Stone B&B
- Billingsgate Charters
- Boathouse Fish Market
- Bookstore
- Box Lunch Wellfleet
- Burdick Art Gallery
- Cape Cod Five Cents Savings Bank
- Captain Ramon Sportfishing
- Celeste Fine Arts Gallery
- Charter Boat Jac's Mate
- Chequessett Golf, Tennis, and Sailing Club
- Chocolate Sparrow
- Claire Carroll Properties
- Colony of Wellfleet
- Cove Gallery
- Eccentricity -Off Center
- Eclectic Co, The
- Farm Project Space and Gallery
- First Congregational Church, UCC
- Flying Fish Cafe
- Frances Francis Design Studio
- Harbor Stage Company
- Harmon Gallery
- Hatch's Fish Market
- Hinckley's Corner Crafts
- Holden Inn
- Inn at Duck Creeke
- Jewelry Studio of Wellfleet
- Jules Besch Stationers
- Karol Richardson Inc
- Left Bank Gallery
- Lighthouse Restaurant
- Lola's Local Food Lab
- Mac's Seafood
- Mac's Shack
- Massage & Bodywork with Tracy Plaut
- Naviator, Cape Mariner
- Newcomb Hollow Shop
- Outer Cape Sailing
- Oyster Cove B&B
- Pearl
- Postcard Harbor Tours
- Quiet Mind Studio
- Ragg Time Ltd
- Salt
- Sickday
- The Secret Garden
- Wellfleet Charters
- Wellfleet Marine Corp (boats)
- Wellfleet Marine Retail store
- Wellfleet Marketplace
- Wellfleet Preservation Hall Inc
- Wellfleet Spirits Shoppe
- Wellfleet Town Pizza Inc
- Wellfleet United Methodist Church
- Wicked Oyster
- Winslow's Tavern

Public Safety

The duties of the Harbormaster entail many things but our most important mission is providing for the safety of the boating public. In the summer Cape Cod as well as Wellfleet Harbor sees an influx of thousands of boaters, many of whom have little experience on or little knowledge of our local waters. To many it is unimaginable that our Harbor would be restricted for the four hours around low tide which is our current situation. This window of access is constantly changing for the worst as siltation continues to clog our channels making access by boat impossible for longer periods around low tide. The inability to respond to an emergency around these times seriously hinders our safety mission.

The Wellfleet Harbormaster Department is part of the Cape and Islands Maritime Response System (CIMRS) whose mission is to enhance the pollution and search and rescue response efforts and whose goals, from a humanitarian perspective, is to prevent the loss of life at sea and to protect the maritime environment. Through joint partnerships between local, state, and federal agencies, CIMRS maintains a readiness posture that reduces response times, employs a consolidated communications system, increases the number of available maritime response assets, improves search and rescue effectiveness and provides a greater sense of security on the waters of Cape Cod.

The Area of Responsibility (AOR) of the Wellfleet Harbormaster includes all of Wellfleet Harbor and the area of Cape Cod Bay extending off our shores. If an emergency were to arise when the USCG is on a mission on the ocean side of the Cape, Wellfleet would be the primary responders to this event as the response time Coast Guards assets from the east side of the Cape to the bay would be several hours. Our inability to respond to any emergency around low tide significantly reduces our role in the CIMRS and is unacceptable as our timely response could be the difference between life and death.

Wellfleet Chamber of Commerce, Inc.
PO Box 571
Wellfleet, MA 02667
508-349-2510

June 19, 2015

TO: Wellfleet Board of Selectmen
FROM: Wellfleet Chamber of Commerce, Inc.
CC: Harry Terkanian, Town Administrator
RE: Wellfleet harbor dredging

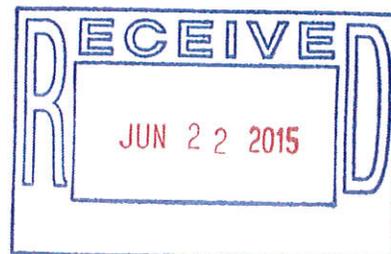
The Wellfleet Chamber of Commerce fully supports the Wellfleet harbor dredging project as voted at a Board of Directors' meeting on 6/10/15.

Since we are an ocean community, the dredging project would benefit all of our businesses in town by improving water quality in the harbor for swimming, helping to maintain good quality harbor shellfish, encouraging boating visitors, and relieving ramp crowding for boats. We believe that the dredging project would improve the quality of life for visitors and residents alike.

Sincerely,



Robert Morrill
President





TOWN OF WELLFLEET
Comprehensive Wastewater Management Planning Committee

220 West Main Street
Wellfleet, MA 02667
508-349-0308
fax 508-349-0327

June 21, 2015

To: Wellfleet Board of Selectmen

RE: Harbor Filling Impacts on Comprehensive Wastewater Plan

The Town of Wellfleet has undertaken an award winning (3 awards including American Public Works Association Project of the year 2014) shellfish restoration effort that has reduced nitrogen in the inner harbor area by 70%¹ and helped bring the area into EPA excellent water quality status. The Marina area receives water from Mayo Creek and Duck Creek that is classified as severely degraded (mainly from natural sources) and the most effective method of remediation is with oyster reef and saltmarsh restoration in the area. A stormwater system was recently installed along commercial street, but the bulk of nitrogen 90-95% is from natural sources² that are within the estuary complexes and upstream from very large bird and animal populations (untreated) which vastly outnumber the human contributions (treated).

Over the past five years, seaclam cultch has been placed, along with shell recycled from the famous Oysterfestival, to build what was a 4 million oyster population in the area. Bi-weekly water quality monitoring over the last five years has demonstrated a dramatic reduction in both nitrogen, which causes excessive vegetation growth, and phytoplankton growth (70% and 90% respectively)³. This reduces the decaying plant loads that fill the inner harbor when this material decays. It has dramatically improved both observable water clarity and thru turbidity data. The reduction in detritus prevents the accumulation of "black mayo" or decaying detritus that tends to fill in the inner harbor. Projects in Florida, Maryland, Virginia and elsewhere have used oyster "armoring" in and around marinas to reduce the need for dredging due to the high filtration rates of oysters (50 gal/day per oyster) and the fact that they consume the materials that otherwise decay and become fill sediments.

Unfortunately over the past two years, the project area has seen a 50% and this past winter 65% mortality of the oyster reef due to muck levels that have risen nearly two feet⁴ and covered the oyster beds. Each of the last two years we have re-culched to

maintain substrate for new oysters and managed to recover population along with a large number of older unharvested stock that has produced a good water quality result.

However, without dredging the whole project area is at risk and indeed the area is truly in peril unless immediate dredging takes place to stabilize and dramatically reduce the muck levels in the area.

The economic value of this project to the Town is in excess of \$60 million⁵ as that would be the cost of providing a municipal sewer system which is the only other alternative accepted by EPA and DEP for bringing the area into compliance with the Clean Water Act. Unfortunately it would not solve the problem but would be required as a last resort unless we can maintain a stable population of oysters and restore Mayo Creek. Harbor dredging in this area is essential to allow both efforts to be successful as the demonstration projects have already shown the potential.

In addition, the Town is in the process of restoring tidal exchange to Mayo creek, the most severely degraded water source in the area. This restoration is timed to take place before dredging so that the outflow of dead material from the re-introduction of sea water to a fresh water system can take place and allow the entire dredging to restore both salt marsh and oyster beds and create a more sustainable ecosystem that will dramatically extend the time needed for future dredging due to the reduction in excess decaying vegetation due to excess nitrogen. This project is essential for Clean Water Act Compliance.

Yours truly,

Alex Hay

Ned Hitchcock

Curt Felix

Patrick Winslow

Lezli Rowell

Wellfleet Comprehensive Wastewater Management Planning Committee

¹ http://www.wellfleet-ma.gov/sites/wellfleetma/files/file/file/wellfleet_oyster_propagation_results_2014-01-08.pdf

² Bivalve-enhanced Nitrogen Removal from Coastal Estuaries; Ruth H. Carmichael, William Walton, and Heidi Clark; Canadian Journal of Fisheries & Aquatic Sciences, July 2012

³ http://www.wellfleet-ma.gov/sites/wellfleetma/files/file/file/wellfleet_oyster_propagation_results_2014-01-08.pdf

⁴ Personal communications with Mark Borrelli Coastal Geologist, Provincetown Center for coastal studies and Anamarija Frankic, Coastal Biologist, University of Massachusetts.

⁵ Environmental Partners Group recent estimate of the cost of a Central District sewer system that could be required if estuary water is not repaired to meet Clean Water Act standards.

http://www.wellfleet-ma.gov/sites/wellfleetma/files/file/file/wellfleet_cwmp_draft_interim_report_08_07_12.pdf

http://www.wellfleet-ma.gov/sites/wellfleetma/files/file/file/interimreportfinal_june20_2012_appendices.pdf