

**COMMONWEALTH OF MASSACHUSETTS
BOARD OF UNDERWATER ARCHAEOLOGICAL RESOURCES
MINUTES OF PUBLIC MEETING – 29 MAY 2008**

MEMBERS PRESENT: Brendan Foley (Marine Archaeologist)
John Hoagland (Dive Community Representative)
Martha King (Director of DCR Division of Waterways)
Lenny Loparto (Designee of Brona Simon, State Archaeologist)
Jonathan Patton (Designee of Brona Simon, Executive Director of the Massachusetts Historical Commission)
Joe Pelczarski (Designee of Leslie-Ann McGee, Director of Coastal Zone Management)
John Tulik (Designee of James Hanlon, Director of Environmental Law Enforcement)
Victor Mastone, Director (Staff for the Board)
David Trubey, Deputy Director (Staff for the Board)

MEMBERS ABSENT: Marcie Bilinski (Dive Community Representative)
Terry French (Designee of John Warner, State Archivist)

PROCEEDINGS:

The public meeting of the Massachusetts Board of Underwater Archaeological Resources was convened by the Director, Victor Mastone, at 1:31 PM on 29 May 2008 in the CZM Conference Room at 251 Causeway Street, Boston.

1. MINUTES

A. Minutes of 27 March 2008

Victor asked the Board if there were any comments or corrections to the minutes of the public meeting held on 27 March 2008. Lenny Loparto stated that he was not at the meeting yet several comments were attributed to him. David Trubey replied that he confused Lenny with Kevin Mooney as Kevin sat in the seat usually occupied by Lenny. He noted that he would correct minutes. There were no other comments or corrections.

John Hoagland moved to accept the minutes of the public meeting held on 27 March 2008 as amended. Brendan Foley seconded. Unanimous vote in favor. So voted.

2. DIRECTOR'S REPORT

A. Claire Dapport

Victor introduced the Board's new research fellow, Claire Dapport to the Board. Ms. Dapport is working on her Ph.D. dissertation for Flinders University in Australia. She will be conducting research and writing while working with the Board. Victor added that he hopes to conduct field work off Nantucket in support of Ms. Dapport's research and is currently lining up a boat and equipment.

CHANGE IN THE ORDER OF BUSINESS: Victor changed the order of business by moving directly to **OLD BUSINESS** in order to accommodate a permittee who has travel schedules to maintain.

5. OLD BUSINESS

C. Nipmuc Nation – Tribal Historic Preservation Office

Victor reported that the Reconnaissance Permit held by the Nipmuc Nation – Tribal Historic Preservation Office (NNTHPO) for its site in Worcester is up for renewal and that NNTHPO has submitted its renewal application and Annual

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Report in accordance with the Board's regulations. Cheryl Stedtler was in attendance to present the application on behalf of NNTHPO.

Ms. Stedtler reported that NNTHPO has switched its focus for the time being away from fund raising to finding a suitable location for the conservation and disposition of the mishoonash. It is currently looking at the Tatassit Beach property on Plum Island at the lake. She showed several photographs of the buildings in which it is interested and described the tribe's plans to develop a cooperative effort with the surrounding towns to establish a lake history museum. This museum would interpret the entire history of the lake rather than just its tribal history.

Ms. Stedtler reported that her team continues to research the historical water levels of the lake and have received assistance with this task from the American Antiquarian Society and the Worcester County Library. The research primarily involves an examination of the lake's damming over the years. Additionally, she and her team continue to investigate the Natural History Camp that once operated on the lake. Specifically, they are trying to determine if the mishoonash were constructed as a history project for students at the camp. Ms. Stedtler noted that she has viewed numerous photographs of the camp and although she has seen modern canoes and rowboats, she has not seen any dugouts or trees that look as if they would be suitable for the construction of mishoonash. Victor stated that the radiocarbon date of the first mishoon pushes its origin back significantly.

Ms. Stedtler presented the Board with charts of the lake based on a survey conducted by CR Environmental, Inc. of East Falmouth, through the efforts of the Worcester County Search and Rescue Team. She explained that these charts do not include side scan sonar or sub bottom profiler data, which is included in a second survey proposal. She noted that the staff of CR Environmental, Inc. does not think a sub bottom profiler would be effective in the lake environment due to the high levels of methane gas in the lakebed. For this reason, it was suggested that the sub bottom profiler only be used in certain areas on which NNTHPO wants to focus. Ms. Stedtler asked the Board is that is acceptable or if it would like a sub-bottom profiler to be utilized in the entire permit area. Victor replied that unless the Board had a specific concern, it would not direct the survey, but rather leave it up to the tribal historic preservation office, their project archaeologist and the survey consultant on how the survey is stratified and for what reasons. Brendan Foley asked Ms. Stedtler why they want to use a sub bottom profiler. Ms. Stedtler replied that its use had been suggested early on in the project as a standard part of a remote sensing marine archaeological survey. Victor stated that the initial idea of surveying the entire permit area was to provide some sense of what the lake bottom was like. He added that the Board understands the costs involved with such a large survey and is not compelling them to survey the entire permit area. He suggested that the project archaeologist and consultant propose the areas on which they want to focus and why. The most likely areas would be the locations of the three mishoonash. Ms. Stedtler acknowledged Victor's comments and stated that they are trying to create an environmental aspect of the survey as well in the hope of pulling in some grant money. For example, they might try to locate areas containing hazardous waste, etc.

Ms. Stedtler asked if the Board could provide some guidance in choosing an appropriate toxicity test for the project area and if this test is just for the safety of divers who might be stirring up the lake bottom during recovery efforts. Victor replied that the suggestion of a toxicity test was out of concern for the personal safety of the project divers. Ms. Stedtler noted that there is quite a price range for this type of testing so keeping it diver specific will be helpful. Victor said he will look into this issue in more depth and get back to her.

Brendan Foley asked Ms. Stedtler if she has considered applying to NOAA's Office of Ocean Exploration for financial assistance with the project. She replied that they have applied for several grants over the past years and believes that one of them was from NOAA. She noted that because the Nipmucs are not a federally recognized tribe, they are not eligible for most federal grants. Brendan stated that he is knowledgeable about the types of project proposals that have been submitted to the Office of Ocean Exploration over the past several years and believes this project would have a good chance of receiving funding or as good a chance as anyone else. He added that a call for proposals would be coming out next month. Victor respectfully disagreed having been a grant reviewer in the past for this NOAA program. He stated that he would not expect NOAA to fund a freshwater project in an inland lake: perhaps one of the Great Lakes, but not a small lake like this one. He added that he is not trying to dissuade Ms. Stedtler from applying, but is simply sharing his experience as a former reviewer. Ms. Stedtler replied that she is willing to give it a try.

Concerning the organization's estimated project budget, Lenny Loparto repeated his concern expressed in previous years that the money allotted to analysis of the mishoonash and report writing is too low. He stated that such things as creating photographic records, measured drawings and other elements of a report that conform with the Secretary of the Interior's standards is a major cost that would be at least as large as any of the other budget categories.

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Ms. Stedtler acknowledged this comment and replied that she would look into modifying the budget. She noted that the survey portion would also be modified as it turned out to be less expensive than they originally thought.

Brendan Foley asked Ms. Stedtler if the group is committed to recovering all three mishoonash. Ms. Stedtler replied that they are not likely to recover the third one as it is in very poor condition. Whether or not they recover both of the remaining two depends largely on what space they acquire for conservation and disposition. She noted that the tribal homestead in Grafton may not be the most suitable place as it is too small and somewhat out of the public vector. They are also waiting for the tribal council to weigh in on the building and property issue. Brendan suggested that organization focus its efforts on one of the mishoon as the anoxic environment of the lakebed is conducive to the preservation of the second. If they decide they want to recover the second, they can always do it at a later date. Lenny Loparto suggested that Ms. Stedtler's organization think about securing preservation funds for the 1800s period building on Plum Island as it could be considered historically significant. Ms. Stedtler replied that she would love to preserve the structure, but based on the inspection of two different contractors and the owner, it is beyond the point of restoration. Should the tribe decide to move forward with the purchase, she would be willing to have an architectural historian examine the structure to determine its potential. She added that they might be able to salvage some elements of the structure to be used in future construction. From the tribe's perspective, the appeal of the property is that it could be developed in different stages; nothing has to be rushed.

Brendan Foley moved to renew the Reconnaissance Permit (01-001) held by the Nipmuc Nation Tribal Historic Preservation Office for its Worcester site with all standard conditions in effect. John Hoagland seconded. Unanimous vote in favor. So voted.

CHANGE IN THE ORDER OF BUSINESS: Victor changed the order of business by returning to the **DIRECTOR'S REPORT**.

B. WCAI Newcomb Hollow

Victor reported that he was interviewed by WCAI, a Cape Cod NPR radio station, on April 15th regarding the Newcomb Hollow ship timbers. The segment was approximately four minutes long and was well produced.

C. Marine Protected Areas Meeting

Victor reported that he attended the meeting of the Marine Protected Areas Federal Advisory Committee working group in Silver Spring, MD on April 20-25th. The group is currently working on evaluation criteria for how the Marine Protected Areas program runs. They will likely be meeting again in November in Seattle.

D. Taiwan Republic – Woods Hole Oceanographic Institute

Victor reported that he attended a meeting on May 1st with Jackie Wang Yu, a doctoral student from James Cook University in Australia who works for the Taiwanese Academia Sinica. The organization is starting an underwater archaeology program for the Republic of Taiwan. Ms. Wang Yu was attending training near Woods Hole, so Victor arranged for Brendan Foley and Porter Hoagland of the Woods Hole Oceanographic Institute to attend the meeting as well in order to give her as much support as possible. He noted that the waters of Taiwan are virtually untouched in terms of archaeological research.

E. Marblehead Survey

Victor reported that he, David Trubey and Claire Dapport participated in a survey of two portions of Marblehead Harbor with Dr. Allen Gontz of the University of Massachusetts-Boston and Ray Bates who offered the use of his vessel. The survey was conducted on May 16th and included the use of a side scan sonar, marine magnetometer and sub-bottom profiler. The goal of this survey was to locate potential remains of the privateer *Freemason* (1779) and to relocate a known site in the outer harbor. Due to a large amount of modern ferrous debris and other material in the inner harbor, including active boat moorings, the data will have to be worked considerably to determine if any could represent the *Freemason*. The survey also included a look at a site in the outer harbor for which Mr. Bates had a permit in the late 1980s. In relocating this site, an additional site was discovered in the same vicinity. Mr. Bates, who is a local shipwreck

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historian, has not yet been able to identify either vessel by name. Victor noted that a reporter from WBUR accompanied the crew for a radio segment that will air on *Morning Edition* in the near future.

F. Globe Magazine

Victor reported that he was interviewed on May 20th for an article which will be published in *Globe Magazine* later summer.

G. Research Cruise

Victor reported that he will be participating in a research cruise tentatively scheduled for June 14th. Wally Westphal has organized the expedition onboard the salvage and survey vessel, *King Triton*, the use of which is being donated by Dale Freeman. The cruise will serve as a test run for possible future fieldwork utilizing this vessel and a volunteer dive team.

H. Summer Recess

Victor reminded the Board that there are no regularly scheduled meetings over the summer months as it is typically too difficult to achieve a quorum. The Board's next scheduled meeting is 25 September.

3. BOARD MEMBER REPORTS

A. Joint Field Testing by Office of Naval Research and NOAA

John Hoagland reported that from May 12th – 23rd, the Office of Naval Research and the National Oceanic and Atmospheric Administration jointly conducted testing of autonomous remote sensing vehicles in Narragansett Bay. The vehicles are typically utilized for military and homeland security operations; however, the purpose of this testing was to measure the effectiveness of this technology for other applications, including marine archaeology. John reviewed some of the data acquired by the vehicles from a shallow water shipwreck site in the bay and stated that the images were spectacular. The conclusion reached by many archaeologists who participated in the event is that some of the technology could be useful depending on the prevailing ocean currents, while some was of limited use. John stated that he emphasized to event participants the importance of collaborative efforts to make this technology available for a variety of projects so that organizations, such as the Rhode Island Marine Archaeology Project, of which he is a member, can utilize it on a regular basis. The head of the Office of Naval Research expressed his sense that there are ways in which this technology can be shared. John stated that he will pursue this opportunity as projects develop. Brendan expressed his satisfaction that the user base for these systems seems to be expanding.

4. SUBCOMMITTEE REPORTS: OUTREACH

A. Bourne Historical Society

Victor reported that he gave a presentation entitled "Massachusetts Submerged History" to the Bourne Historical Society on April 9th. The lecture was well received and was followed by a lengthy question and answer session.

B. Bay State Council Meeting

Victor reported that David Trubey attended the April 9th meeting of the Bay State Council of Divers in his absence. The meeting focused on a number of ongoing issues including the Gloucester dive flag law, the proposed artificial reef and the Council's annual treasure hunt.

C. Conference on New England Archaeology

Victor reported that he and David attended the 28th Annual Conference on New England Archaeology on April 19th at Franklin Pierce University in Rindge, NH. The theme of the meeting was "Challenging Our Assumptions: Creating

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and Revising Our Ideas about Site Location". Victor noted that Jonathan Patton also attended on behalf of the Massachusetts Historical Commission.

D. NASOH Conference

Victor reported that he attended the Annual Conference of the North American Society of Oceanic History (NASOH) at Pensacola, FL on May 7-11. He noted that he served as the Program Co-Chair and will do the same next year at the annual conference in Vallejo, CA. The organization is comprised of both maritime archaeologists and historians.

E. Bay State Council of Divers Treasure Hunt

Victor reported that he volunteered at the Bay State Council's annual treasure hunt on May 18th.

F. South Shore Neptunes Dive Club

Victor reported that he gave a presentation on the Minot's Light Project to the South Shore Neptunes Dive Club on May 20th.

G. Cape Cod Lighthouse Charter School

Victor reported that he and Claire Dapport delivered a presentation on marine archaeology to the students of the Cape Cod Lighthouse Charter School on May 27th. The presentation was at the request and invitation of Michael Farber. Victor noted that he was presented with an incomplete Reconnaissance Permit application by Mr. Farber at the meeting. The event was covered by the *Cape Coder* whose reporter seemed sympathetic to the Board's position regarding the need for a complete application before a permit can be considered.

H. Upcoming Meetings and Events

Victor noted that he will be attending several meetings over the summer months including the next Bay State Council meeting (June 11th) and will be making presentations at the Cape Cod National Seashore Summer Series (August 12th) and the Massachusetts Archaeological Society – Northeast Chapter (September 16th). He added that he and David are in the planning stage for the Board's Archaeology Month events. Although they have one event scheduled, there may be some changes to the format and perhaps venue. Victor stated that the planning is difficult because of the early deadline set by the Secretary of State's Office.

5. OLD BUSINESS (continued)

A. Philip D. Greco Associates, Inc.

Victor reported that the permits held by Philip D. Greco Associates, Inc. (PGA) are up for renewal and that Mr. Greco had submitted the renewal applications and Annual Reports in accordance with the Board's regulations. Mr. Greco was in attendance to present the applications on behalf of PGA.

Mr. Greco reported that very little has changed at PGA's site since he came before the Board last year. The main objective for his team this season is to relocate the tin piles observed in previous years. PGA has scheduled a sub bottom profiler survey and hopes to correlate the resultant data with the data PGA has gathered over the past several years. If this effort is successful, it will help determine on which portions of the permit areas they should focus their time and resources. Mr. Greco added that his team is still deploying the robots for reconnaissance and they are working quite well. The permit areas still contain large amounts of sand, which makes the project challenging. They are hoping for a hurricane to come through and shift this sand to a different location. Mr. Greco added that there seems to be a new type of mung in the water which he has not seen before. He also noted that the copper from the Marconi cable has been removed by a commercial diver presumably for sale to a metal salvage firm. He stated that there are numerous anomalies in PGA's permit areas and that as he and Dick Weckler are getting older, they might consider hiring a firm to take over the project, once they find something significant. Victor stated that under the Board's regulations, PGA would be allowed to subcontract to another organization or firm, given the Board's approval.

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Mr. Greco expressed his concern regarding security issues at the sites. He inquired about the ongoing investigations with the Massachusetts Environmental Police that were initiated last year. Victor replied that there was really too little information to work with. He added that as a result of security concerns, the Board will be conditioning all permits next to state or federal parks with the requirement that the permittee communicate with the administrators of these parks. This is similar to the condition placed on Mr. Ricardo's permit that he coordinates all field activity with the staff of the Salisbury Beach State Reservation. The purpose of this additional condition is to provide these parks information regarding what vessels they should expect to see in the project areas, which will help them monitor activity at these sites. Mr. Greco welcomed this condition and agreed that it should prove helpful. He noted that there is a lot of diving activity taking place off that portion of the Cape and artifacts are being removed including two historic anchors that he saw on a boat in Provincetown. He also described a three point anchoring system that he saw being deployed by a vessel in his permit area, which raised his suspicion. Lenny Loparto stated that commercial lobster divers are working off Nausett and are working as long as six hours per day. Captain Tulik stated that there are a number of commercial divers working off Cape Cod. Victor suggested that Mr. Greco discuss additional security concerns with Captain John Tulik of the Massachusetts Environmental Police.

Brendan Foley suggested to Mr. Greco that he is going to have a difficult time detecting any objects with a sub bottom profiler unless they are very large. He noted that most sub bottom profilers are very low frequency and are designed to detect subtle changes in the geological composition of the seafloor. He stated that Mr. Greco would be better off running a chirp system and cautioned that the data from a sub bottom profiler essentially useless unless it is accurately correlated with navigational data. Mr. Greco stated that he had not heard of these types of problems, but would discuss them with his consultant. Mr. Greco summarized by stating that once the sub bottom survey is completed they will reassess the situation depending on what it reveals. If something significant is located, PGA will likely file for an excavation permit.

John Hoagland moved to grant renewal of the Reconnaissance Permit (92-001) held by Philip D. Greco Associates, Inc. for its Eastham/Wellfleet site with all standard conditions in effect and with the further condition that the permittee coordinate all field activities with the staff of the Cape Cod National Seashore. Martha King seconded. Unanimous vote in favor. So voted.

Brendan Foley moved to grant renewal of the Reconnaissance Permit (92-002) held by Philip D. Greco Associates, Inc. for its Wellfleet site with all standard conditions in effect and with the further condition that the permittee coordinate all field activities with the staff of the Cape Cod National Seashore. Lenny Loparto seconded. Unanimous vote in favor. So voted.

B. Raymond L. Hayes

Victor reported that the Reconnaissance Permit held by Raymond Hayes for his project in Great Harbor, Woods Hole is up for renewal and that Dr. Hayes had submitted the renewal application and Annual Report in accordance with the Board's regulations. Dr. Hayes was in attendance to present his application.

Dr. Hayes reported that he and his team had two major accomplishments during the year. First, they were able to work with the harbor master in securing the use of six moorings as datum points for their survey. Secondly, they were successful in locating and examining numerous artifacts from his permit vicinity that have been collected by divers over the years. This has been helpful in providing a sense of what types of materials are likely in the harbor. Dr. Hayes noted that he would like to train a team of volunteers to dive around the moorings. Additionally, he would like to conduct some preliminary remote sensing in his permit area including side scan sonar work. At this time, only GPS data have been collected by the harbor masters for the mooring locations. Dr. Hayes plans to share his remote sensing data with the harbor master.

Victor complimented Dr. Hayes on the quality of his report, which could serve as model in terms of its format and content. He noted that the Board is currently working on guidelines for report writing, which should be finished this summer.

Regarding Dr. Hayes's plan to train a team of divers to observe and map areas around the moorings, John Hoagland asked if he is aware of the Board's subcommittee that was recently formed to look into the feasibility of creating a volunteer dive team. Victor stated that he is planning to discuss the sub committee with Dr. Hayes following the meeting. John noted that such a team could be a very good fit for this project.

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Lenny Loparto expressed his concern that the proposed fieldwork includes the use of rebar probing to determine the presence of shallow subsurface artifacts. He did not recall seeing that in the original permit application and has seen artifacts damaged by this practice on other projects. Dr. Hayes responded that his team gently taps the rebar into the sediment to get a sense of what is underneath. The rebar is helpful for taking measurements and provides stability for divers dealing with bottom currents. Victor noted he also has concerns about the use of probes but noted that Dr. Hayes has used them on other surveys so this is not an experimental element of his work. Dr. Hayes acknowledged that probing can be destructive to unseen artifacts if it is not done carefully.

Joe Pelczarski moved to renew the Reconnaissance Permit (07-001) held by Raymond L. Hayes for his Great Harbor, Woods Hole (Falmouth) site with all standard conditions in effect. Brendan Foley seconded. Unanimous vote in favor. So voted.

C. Restoration Project, Inc.

Victor reported that the Reconnaissance Permit held by Restoration Project, Inc. (RPI) for its Willis Pond, Sudbury site is up for renewal and that RPI had submitted its renewal application and Annual Report in accordance with the Board's regulations. Ms. Newell was expected to be at the meeting, but was not in attendance. Victor stated that Ms. Newell expressed RPI's interest in moving forward with the project for another year. He noted that there still seems to be potential to find a resource at the site and RPI has demonstrated the ability to coalesce a responsible volunteer team. From this perspective, it has been a successful project despite not yet finding the resource.

Martha King moved to renew, retroactive to 27 March 2008, the Reconnaissance Permit (02-001) held by Restoration Project, Inc. for its Willis Pond site with site with all standard conditions in effect and the further condition that Restoration Project, Inc. coordinates its field activities with the Department of Conservation and Recreation staff archaeologist. Brendan Foley seconded. Unanimous vote in favor. So voted.

E. Victor Ricardo

Victor reported that the reconnaissance permit held by Victor Ricardo is up for renewal and that Mr. Ricardo had submitted his renewal application and Annual Report in accordance with the Board's regulations. Mr. Ricardo was in attendance to represent his application.

Mr. Ricardo reported that, as in previous years, sand in his permit area is the main hindrance to progress in the field. He reminded the Board that the U.S. Army Corps of Engineers dumped dredged sand in his permit area a few years ago. He stated that this sand is still there and is pretty much all he sees on the bottom despite reports from divers who recall seeing significant amounts of cultural materials in the area years ago. Victor stated the Board staff has informed the Corps that there is an active permit in the Salisbury area and that the issue of beach nourishment became somewhat controversial this year for this reason. He noted that he has tried to have the Corps contact Mr. Ricardo directly so there would be regular communication and coordination of activities. The beach nourishment project could fall under Section 106 of the National Historic Preservation Act in which case Mr. Ricardo would need to be consulted as an interested party. Martha King stated that the Corps cannot go too far off the beach if the nourishment plan is to be successful. The idea of conducting a sediment transport study for this area and south coastal New Hampshire has been proposed and is supported by DCR's Division of Waterways. She added that she will talk Kevin Mooney of her department to get more information. Victor stated that the argument had been made that additional sand overburden would not harm an archaeological site, but would serve as additional protection from the destructive elements of the ocean environment. However, recent research on this concept has shown that this may not be the case. In some situations, additional overburden can in fact destabilize the environment of a site.

Regarding his research, Mr. Ricardo believes he has found the complete name of the captain of the vessel for which he is searching although he is not yet positive. He has purchased a third boat which is almost ready for fieldwork. Victor suggested that Mr. Ricardo talk to the divers to which he referred earlier to find out what types of material were observed or collected from his permit area. This could help him to date the potential resources.

John Hoagland moved to grant renewal of the Reconnaissance Permit (94-001) held by Victor Ricardo for his Salisbury site with all standard conditions in effect and the further conditions that Mr. Ricardo coordinate with the Department of Conservation and Recreation (DCR) facility (Salisbury Beach State Reservation) staff and the DCR Office

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of Historic Resources for any on site activities; the DCR staff determine when activities on site take place; no excavation activities take place under this permit; and that no cultural materials leave the boundaries of the Commonwealth of Massachusetts except with the prior written approval of the Board. Joe Pelczarski seconded. Unanimous vote in favor. So voted.

F. Joseph K. Dietlin and Duane J. Rine

Victor reported that Joseph Dietlin and Duane Rine were in attendance and had requested time to update the Board on their proposed revised work plan for their site off Salem. The work plan was submitted to the Board staff by their project archaeologist, Robert Cembrola.

Joseph Dietlin presented the work plan to the Board and noted that the only change from the one submitted last year is the proposed use of a prop wash deflector to remove the overburden in the area in which they have a substantial magnetometer reading. Mr. Dietlin pointed out that the prop wash deflector they are proposing to use is not of the typical design in that this system is comprised of a straight, cone shaped device placed behind the vessel's prop and attached to a 16-inch diameter, flexible hose. The restricted hose diameter will allow the boat to be run at a lower RPM than with typical deflectors and the water force to be carefully and accurately directed. Mr. Dietlin explained that the reason for this request is that the water lift they had been using takes too long. He noted that last year, it took the team a full month to excavate to a depth of eight feet. He hopes that with the Board's approval, this new technique will help them remove the overburden at this location more efficiently and with a high level of control. Additionally, this method will provide better visibility for the divers than does the water lift, which tends to cloud the water column very quickly. Regarding depth control of the procedure, he stated that the variety of metal detectors the team is using will allow them to know when they reach a specified depth from the target. Based on the 1804 chart and the contemporary chart, Mr. Dietlin estimates there is in excess of 30 feet of sediment over their large magnetic target. He added that the use of this procedure will greatly increase the project's chances for success in terms of locating and excavating this ship.

Brendan Foley asked Mr. Dietlin the depth of the water at the site. Mr. Dietlin replied there are three different test pit areas in which they are interested. The next pit they would like to examine is in approximately 30 feet of water and is approximately 180 feet to the west of the test pit they examined in September 2007. Brendan asked if there is much wave action in the area. Mr. Dietlin replied that there can be a lot of wave action up in the shallows and that the test pit can fill in within a matter of days. He added that removing the sediment that fills in the test pit is easier the second time around because it's not packed hard, but the whole process is very frustrating. He and his team have looked into the idea of deploying a coffer dam at the site but they have concerns about the potential damage that could occur if the dam works its way too deeply into the bottom and possibly an archaeological feature. Victor asked the Board to picture the proposed system as using the prop wash to generate the water flow, but using the sixteen-inch hose to direct it in a broad manner. He pointed out that the water pressure would not be so concentrated as to work like a water jet. Also, unlike a traditional prop wash deflector, the system proposed by Mr. Cembrola allows a diver to be in the water operating the equipment and observing the sediment removal. More importantly, a diver can stop the excavation should artifacts emerge without destroying their context. Victor noted this fact greatly enhanced his level of comfort with the proposed methodology. Mr. Dietlin added that when the metal detector readings indicate they are getting close to the source of the magnetic target, or if non ferrous cultural material begins to appear, they would shut down the prop wash deflector and switch back to using the water lift, which gives them very slow sediment removal. He is confident that if they are allowed to use the proposed methodology to investigate these three areas, they will be able to make a determination if they are searching in the right location.

Brendan Foley asked Mr. Dietlin to clarify his statement earlier that there is more than 30 feet of sediment above one of the targets. Mr. Dietlin responded that at the 1804 chart shows six fathoms of sediment above the wreck. Over the years since 1804, a large leg of sand has shifted to the south and has piled up over this location to depth of more than thirty feet. Brendan stated that as they excavate this sand away, the vertical wall of the test pit will not hold its form and will reach an angle of repose. For sand, it is typically a three to one angle. In order to get thirty feet down, the opening of the test pit will end up being 180 feet in diameter. He stressed that this size whole would produce an enormous amount of sand that would need to be excavated. He added that the proposed methodology seems impractical. Mr. Dietlin replied that using the system described earlier would allow divers to get into the fifteen foot range of whatever is generating the magnetometer hit. He explained that the magnetometer is putting them in the general vicinity of the anomaly, but they are unable to pinpoint the location without using their metal detectors, which cannot be used until approximately half the overburden is removed. Brendan replied that even if they plan to remove the sediment to a depth of ten feet, they would still be creating a 60-foot diameter hole. Mr. Dietlin stated that their eight-foot deep hole held its

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vertical walls because there was a good amount of rock in the sediment. If they can determine the exact location of the anomaly, they will be in a better position to determine their next steps, which could involve the careful use of a coffer dam to keep the sand from filling back in. Mr. Dietlin stated that given the long road they have traveled to get to this point in the project (23 years), the effort and time need to properly excavate an anomaly that shows strong potential for being the wreck for which they are searching, would be worth it.

Brendan stated that as much as he believes sub bottom profiling is often not the right tool for archaeological work, he feels it might be in this particular case. Mr. Dietlin replied that he has done a lot of research on the idea of deploying a sub bottom profiler at this site and believes there is too much rock and heavy gravel for it to be effective. He added that he and Mr. Rine are not looking for an answer from the Board today, but are rather proposing this technique to get some feedback as to its practicality. He equated their dilemma to the idea of “digging a foundation for a home with a shovel as opposed to a bulldozer”. Mr. Rine noted that they are proceeding on this project with as much caution and care as they can as far as artifact protection is concerned and that it is also in their best interest not to damage anything. Additionally, he believes the use of a modified prop wash deflector will facilitate backfilling of the test pits as the excavated sediment can be mounded to one side. He noted that this is not the case with the water lift as the sediment tends to be carried away by the current. Victor stated that Brendan’s points are important to consider and asked the Board if there were any other concerns. He noted that from an experimental perspective, he believes the proposed technique has merit, but that it may prove to be impractical.

Joe Pelczarski asked Mr. Dietlin if his divers are all volunteers. Mr. Dietlin replied that they are. Joe stated that there are new laws governing the practice of trenching that resulted from accidents during pipeline construction. He asked Mr. Dietlin if he is concerned about the stability of the test pit walls from a safety standpoint. Mr. Dietlin replied that safety is absolutely a concern and they plan to be extremely careful in maintaining the walls. If need be, they will utilize a coffer dam to prevent the pit walls from collapsing. Victor again asked the Board members if there are other concerns regarding the proposal and added that he is disposed to let Mr. Dietlin and Mr. Rine test the procedure just as the Board let Underwater Discoveries Unlimited test the performance of its prop wash deflector.

Leonard Loparto expressed his feeling that Mr. Dietlin and Mr. Rine's options seem pretty limited at this point and that perhaps an innovative method would be useful. Jonathan Patten asked Mr. Dietlin if his divers have a communication system. Mr. Dietlin replied they do not at this time, but that they will be utilizing surface supplied air this season, which will facilitate implementation of a communication system. He noted that they currently utilize underwater video cameras so he can watch the divers at all times. If they do not purchase a communication system this season, they will continue to use slates on which the divers write and place in front of the video cameras. John Hoagland stated that as Mr. Dietlin and Mr. Rine have been working on this project for 23 years and unless the Board can offer an appropriate alternative method of removing the overburden, he feels they should be allowed to test the proposed technique provided the safety concerns are dealt with. Joe Pelczarski stated that they will likely have to get permission for this activity from the local conservation commission. Victor replied that obtaining the required permits from other agencies would be the responsibility of Mr. Dietlin and Mr. Rine, but added that they have a good record when it comes to following regulations. John Tulik asked if there would be any impact of the proposed activity to the urchin or scallop fishery. Mr. Rine replied there has been no scalloping or urchin collection in this area for many years.

Joe Pelczarski added that the scallop divers typically work farther north towards Misery Island. He asked Mr. Dietlin if he has ever used a device like the one he is proposing to use. Mr. Dietlin replied that he has not and does not know of anyone who has. He added that this modification to the standard prop wash deflector is any idea that he has been thinking about for a long time and believes it will work well. He stated that he and his team would be happy to video tape the procedure for the Board to review. Regarding the visibility issues raised earlier, Brendan asked Mr. Dietlin if they are piping that affluent from the water lift far enough away and down current. Mr. Dietlin replied that they are, but are still experiencing close to no visibility. Mr. Rine added that the current does not take the sediment away and it ends up remaining in the water column around the test pit.

Victor asked if it was the sense of the Board that the proposed modification to the project work plan should be approved by him as Director or if the Board would rather take the issue to a vote. He stated that given the concerns raised by some members, he would prefer the later. Brendan Foley stated that believes the proposed technique is too aggressive, cannot be considered controlled excavation and is not good practice. He stated “if the Board’s purpose is to make sure it is protecting the resource, I do not see that this method protects the resource in any way.” He advocated for the use of a sub-bottom profiler over the magnetic targets as a more effective and efficient exploratory technique. Mr. Dietlin replied that his understanding is that a sub bottom profiler would not work with the seafloor characteristics at this

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site and to try it would be a waste of time and money. Brendan stated that it would certainly be a waste of money and time trying to remove 30 feet of sediment over the targets. Mr. Dietlin replied that he and his team are not looking to use the proposed technique to remove all 30 feet, but rather enough to get them within range of the target to effectively use their metal detectors. He stated that even if they only remove six feet of sterile sediment with this technique, it will still save them a significant amount of time and effort. He added they are not proposing the use of this technique to excavate the site: only to help them determine if the site is at this location. Brendan asked Victor his opinion of the proposed modified work plan. Victor responded that it sounds like a reasonable approach because they are not planning to use the technique to dig to the cultural level. Their plan is to switch to a more controlled technique when they get close to the level in which cultural material might be present. He reminded Brendan that this area for which the use of the modified prop wash deflector is being proposed is only a test pit.

Brendan asked the Board if it should require Mr. Dietlin and Mr. Rine to have the sediment tested for contaminants as it did for the NNTHPO. He added that Salem Harbor is known to contain heavy metals and other dangerous materials. Victor replied that the Board did not require the NNTHPO to test the sediment in Lake Quinsigamond, but rather made the suggestion. Mr. Dietlin stated that as the site is on the out edge of the harbor, he does not believe the sediment contains the heavy metals that are found in the inner harbor area.

Joseph Pelczarski asked Mr. Dietlin if the water flow from the proposed devise can be controlled by a diver. Mr. Dietlin replied that they will have a system in place through which a diver can shut the system down. He stated that the hose will be connected to a buoy which will allow the nozzle end to be pulled straight up thereby turning the water flow away from the bottom. He added that if the Board requires a different means of stopping the water flow, they would be willing to make the necessary changes. Martha King asked Mr. Dietlin to verify that his team is only planning to use the modified prop wash deflector to the level at which the metal detectors will function accurately. Mr. Dietlin affirmed that that is the plan.

Martha King moved to approve the amended work plan submitted to the Board by Mr. Dietlin and Mr. Rine for 2008. Joe Pelczarski seconded. Four votes in favor (Joseph Pelczarski, Martha King, Lenny Loparto, Jonathan Patton), three abstentions (John Hoagland, Brendan Foley, John Tulik). So voted.

6. NEW BUSINESS

A. Fathom Research, LLC.

Victor reported that Fathom Research, LLC. had submitted a Special Use Permit application for two marine archaeological reconnaissance surveys as part of the Hull Offshore Wind Energy Project. The survey will incorporate the use of a marine magnetometer, side scan sonar and sub-bottom profiler and will be under the direction of marine archaeologist David Robinson. Victor stated that the application, including Mr. Robinson's credentials meets the requirements specified in the Board's regulations and that he provisionally issued the permit on 25 April 2008.

Brendan Foley moved to grant Fathom Research, LLC a Special Use Permit (08-001) for the Hull Offshore Wind Energy Project areas (as specified in the application) with all standard conditions in effect. Joseph Pelczarski seconded. Unanimous vote in favor. So voted.

B. Panamerican Consultants

Victor reported the Panamerican Consultants, Inc. had submitted a Special Use Permit application for a marine archaeological reconnaissance survey as part of the Neptune Offshore LNG Terminal Project. The survey will be conducted under the direction of marine archaeologist Andy Lydecker and will include the use of a marine magnetometer, side scan sonar and sub-bottom profiler. Victor noted the application, including Mr. Lydecker's credentials, meets the requirements specified in the Board's regulations and that he provisionally issued the permit on 5 May 2008.

Jonathan Patton stated that the SHPO was not provided the research design and methodology for this expanded survey. He asked that the permit be granted contingent upon the applicant submitting the survey research design and methodology to the SHPO for review and comment. Lenny Loparto offered his support for this condition. Victor stated that he wants to be clear that issuance of the permit is contingent only upon the applicant's submittal of the research

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design and methodology to the SHPO and not the SHPO's approval. He reminded the Board that the SHPO's jurisdiction over this project is due to Section 106 of the National Historic Preservation Act, whereas the Board's jurisdiction is as the property custodian.

Jonathan Patton moved to grant Panamerican Consultants, Inc. a Special Use Permit (08-002) for the Neptune Offshore LNG Terminal Project area (as specified in the application) with all standard conditions in effect and the further condition that Panamerican Consultants, Inc. submit its survey research design and methodology to the SHPO for review. Lenny Loparto seconded. Unanimous vote in favor. So voted.

C. Donna Beales

Victor reported that Donna Beales of Lowell, MA had submitted an application for an Isolated Find Exemption for an unidentified object found the beach in Truro. The object is described as flat and round, approximately one and a half inches in diameter and covered with what appears to be rust. Ms. Beales contacted Ken Kinkor of the *Whydah* Museum who directed her to the Board. According to the application, there were no other objects or materials in the immediate area of the discovery. Ms. Beales would like to restore the object and perhaps write an article about the experience.

Joe Pelczarski moved to waive jurisdiction over isolated find number 2008-IF-0001 from the Town of Truro and relinquish all rights, title and interest to Donna Beales. John Hoagland seconded. Unanimous vote in favor. So voted.

Brendan Foley moved to adjourn the meeting at 3:35 PM. Jonathan Patton seconded. Unanimous vote in favor. So voted.

Respectfully submitted,

Victor T. Mastone
Director