



Boston Harbor Geographic Response Plan (GRP) Project

November 16, 2010 9:00 a.m.
USCG Base Support Unit
Boston, Massachusetts

Attendees

Paul Arnett – USCG Sector Boston
Chris Bresnahan – MA DEP, ER, NE Region
Michael Brewer – USCG Sector Boston
Rich Bryan – Quincy Fire Department
Rich Carroccino – Chelsea Fire Department
Cosmo Catarino – EPA
Joseph Cheevers – Boston Police, Harbor Unit
Ryan Cox – Boston Line & Service Co.
Elise DeCola – Nuka Research
Bill Dowd – DCR
Mike Foley – Quincy Police, Marine Unit
Pamela Garcia – USCG Sector Boston
Damian Guzman – Exxon Mobil
Brandy Haywood - USCG
Patrick Johnston – Everett Police, Marine Unit

Ron Kenny – Global Oil, Chelsea
Margaret Laforest – Quincy City Council
Jim Lally – Global Oil, Chelsea
Paul Milone – Weymouth Harbormaster
Rich Packard – MA DEP
Mia Pasquerella – EPA
Mike Popovich – USCG District 1, Boston
Caleb Queen – Nuka Research
Dave Roach – MA Division of Marine Fisheries
Denise Sarno-Bucca – DCR
Sanne Schneider – Nuka Research
Alex Shunda -USCA
Albe Simenas – MA DEP
Heather Warchalowski – DCR
Brad Wellock - Massport

Welcome & Introduction

Rich Packard of the MA DEP introduced himself and welcomed the group. The Boston Harbor GRP project is the fourth in a series of six GRP regions that the MA DEP has contracted Nuka Research and Planning Group to develop. Geographic Response Plans have been developed and incorporated into the Area Plans for the Cape & Islands, Buzzards Bay, and the North Shore. Packard noted that the Boston Harbor GRP group has been particularly active, contributing to the success of the project. He introduced Elise DeCola of Nuka Research.

Activities Since Last Meeting

DeCola discussed the history of the project, beginning with the kick-off meeting in April and continuing with the site selection process, site surveys, and tactics review. She emphasized that today's focus is reviewing the 18 Boston Harbor GRP drafts, and asked for input and discussion from the group to contribute to final edits. Although comments will be accepted today, there will be more time in the next few weeks for individuals to review the GRPs at greater length and to provide input.

Project Objectives

DeCola stated that the MA DEP sought to institute the GRPs as a tool for first responders to use for protecting sensitive areas in case of an oil spill. She explained that at the beginning of the project the focus is on identification of environmental sensitivities and protection priorities, and that tactics are developed to protect those areas where feasible. She described the GRPs as flexible and modifiable because each situation in which they can be used is different. The Boston Harbor GRPs follow a standard format used throughout Massachusetts which is effective especially in situations where mutual aid is needed.

DeCola thanked everyone who supplied vessels (Quincy, Weymouth, Everett, DCR) and all of the individuals and agencies that participated in the site surveys. She explained that the initial GRP drafts were reviewed by a tactics subgroup which included individuals with spill



response experience. She emphasized that the GRPs being reviewed today are still in draft form pending final work group comments.

DeCola continued with the history of the project noting that during the first meeting the harbor was broken up into sites but that those sites were modified over the life of the project until the final count of 18. She explained that the site selection matrix had been updated based on the final site delineation, and that the matrix itself is a good resource to identify wildlife, natural resources and human use within each site. DeCola introduced Mike Popovich of the United States Coast Guard to speak about the booming tactics that are used in the GRPs.

Review of Oil Spill Response Tactics

Mike Popovich began discussing the tactics used in the GRPs. He noted that the tactics listed in the GRPs are described in greater in the Massachusetts GRP Tactics Guide, which is available on the project website. He encouraged the workgroup members to take the time to review the GRPs in detail and to become familiar with the tactics guide, which was distributed around the room. Pat Johnston of the Everett Police Marine Unit asked whether the final GRPs would be distributed in a bound copy but Packard noted that MassDEP does not distribute printed copies, instead encouraging individuals to print some or all GRPs from the website. DeCola answered that when the GRPs are finished there will be one document available online to download.

Popovich pointed out the symbols for different types of booming strategies, which are consistent for all GRPs in the state. He stated that the tactics themselves are flexible. He emphasized the importance of local input into the process of creating a GRP, saying that we need people who can say what currents and tides are like in a specific area. He noted that the final tactics included in the GRP are always modifiable. He discussed briefly how the operating environment will dictate both the equipment to be used and the tactics.

Popovich ran through the three major booming tactic: exclusion, diversion and deflection. He explained that diversion/deflection booming are basically the same thing; you are using boom to move oil somewhere. Diversion is to direct it to somewhere and deflection is to direct it away. Exclusion boom is to keeping the oil out of somewhere (e.g. rivers, marshes). He also briefly pointed out the different arrays that can be used (e.g. chevron, cascade). He noted that protection priorities are necessary because it is not possible to protect everything. This is one of the criteria used to select the tactic, as well as feasibility.

Popovich spoke about shoreside recovery (collecting oil from a certain location) which can be done with boom or without. DeCola inserted the need to consider access points and roads to use vacuum trucks and other collection equipment. Another benefit to local expertise, noted Popovich, is to identify natural collection points (shoreline areas where floating debris naturally accumulate). DeCola added that we focus on shoreside recovery in the GRPs because the on-water free oil recovery is more challenging and requires more training and resources than most towns have. Both on-water free oil recovery and marine recovery require skimmers and experienced vessel operators.

Popovich stressed that it is extremely helpful to review the basics in the Tactics Guide prior to a spill or exercise to become familiar with the strategies and equipment. DeCola then introduced Caleb Queen to talk about GIS mapping, how it works, and how it is used in conjunction with the GRPs.



Overview of GIS Mapping

Caleb Queen began by explaining that the software he uses to map the GRPs is called ArcGIS (developed by ESRI). GIS stands for geographic information system. ArcGIS is a mapping software which uses spatial analysis to build spatial databases. He has used GIS mapping to create GRPs for 18 sites in Boston Harbor and for all other Massachusetts GRPs. All the features on the maps are drawn to scale and have latitude/longitude assigned to them. Queen also noted that the GRP data can be overlaid with other GIS layers (like watersheds and boat ramps).

Queen gave an example of how to use the GIS program to determine what resources are needed when an oil spill occurs that affects more than one GRP site by using the statistical analysis function within the GRPs, which can tally the length of boom and type of resources needed to implement multiple GRP sites. Able Simeonas confirmed that this had been done during the last SONS drill. Pat Johnston asked about the availability of GIS data and Queen stated that MassGIS manages the GIS data and can distribute as requested.

Guzman asked how the GIS data are updated to reflect changes to infrastructure (e.g. roads) based on other permitted activities. He used the example of developers changing or creating roads. Albe Simenas (MADEP) said that this is an ongoing process, and that coordination of GIS databases among different agencies and divisions is a work in progress.

DeCola clarified that changes to roads, etc. is a base layer issue. Guzman reiterated that private developers are able to make huge changes in the natural landscape and that GIS is a powerful tool.

Johnston asked if there was a plan in place to update and change GRPs. Garcia said that the Area Contingency Plan (ACP) is required to be updated every five years and that GRP updates could fall under this process. Packard remarked that as GRPs are written they will then be tested during training exercises. Any changes that come forth from these exercises will be used to update the GRPs. DeCola mentioned that there are a couple of levels of ground truthing the GRPs. The satellite images that we have access to are from 2007 or 2008 so there is the probability that some things have changed since then, but that the site surveys used to develop tactics typically yield information regarding changes to natural structures such as inlet openings, etc. Testing the GRPs is another level of ground truthing. She noted one thing that has come out of developing the GRPs is that we have found that the MADEP information on boat ramps is pretty out-of-date. Packard said that he is occasionally assigned an intern that could update certain information.

Guzman asked if the workgroup could somehow get an automatic email when there is an update to a GRP. DeCola stated that this is a future goal for the project but not currently in place. Packard remarked that the updates are noted on the website. Johnston suggested that rather than house all of the GRPs on a contractor website, the state might consider a sharepoint type application to ensure access to the most updated versions. Packard acknowledged that once the GRP program has completed plans for all regions of the state, information management will be considered. For now, the GRP website will remain the primary repository for all files.

DeCola noted that the GRPs are paper-based documents and that responders seem to value this, but admitted that the technology is changing so rapidly that is bound to change at some point.

Review and Comments on Draft GRPs



DeCola began discussing the GRP review process. She suggested workgroup members review at least the sites that are in their town and listed some things to consider: are the tactics feasible; is the logistical information correct (i.e. driving directions, place names, boat ramps); and do the tactics reflect the protection priorities for that site?

DeCola noted that there is some overlap on the Boston Harbor GRPs with other plans already in place (e.g. Co-op booming tactics and Facility Response Plans) which is unique to this location. There are booming tactics that have been developed by the Co-op but if a spill does not originate from a member terminal, then the Co-op boom may not be deployed. DeCola also noted that there may be some overlap or inter-relationship between the GRP tactics and the booming tactics in Facility Response Plans approved by the EPA. Johnston asked if there was an agreement in place with the Co-op to give aid in case of a spill. Jim Lally of Global Oil said that in the past the Co-op has tended to rent or loan out boom as they are able. Pamela Garcia (USCG) agreed but reminded the group that they have limitations based on federal panning standards. Paul Arnett (USCG) clarified that the Co-op cannot legally release their equipment below the base level required to support their members. DeCola said that the short answer is that if they (members of the Co-op) can legally release boom, they probably will. Ryan Cox (Boston Line) agreed.

Johnston remarked that there were more flood tide tactics than ebb tide in the GRPs and asked about upriver spill sources. DeCola said that some sites do have ebb tide tactics and that if work group participants thought ebb tide tactics were missing for specific sites they should raise that point today. She stated that sometimes it becomes a question of whether letting the oil migrate back out to open water would be better than trying to trap it, and that when developing the GRPs they did consider the issue. Brad Wellock (Massport) asked how the GRPs are updated. DeCola noted that they are Word files and easily modified. Information can be sent to MassDEP or to Nuka.

DeCola went through the layout of the GRPs with the group. The first page is the tactics map. The next two pages are tactics information, including booming strategy, location/description, response strategy, implementation, response resources needed to deploy, staging areas site access, resources to be protected, and special considerations. She noted that NOAA chart numbers will be added for locations also. DeCola remarked that the number of personnel can sometimes be adjusted and stressed the importance of local expertise to identify any practical information (e.g. navigational hazards). The final page is a combination of photos for ground perspective, the State's satellite images, and contact numbers (including town, MADEP, USCG, Co-op, Massport, DCR, etc.) which is not meant to be an exhaustive list. Paul Milone (Weymouth Harbormaster) stated that the shellfish constable (if there is one) should be on the contact list as well. DeCola agreed. She noted that for the Boston Harbor GRPs some legends have been added: yellow boom (Co-op), pump stations, etc.

Discussion of Draft GRPs

The draft GRPs were discussed and information provided during the meeting is noted here. DeCola notified the group that November 26th is the comment deadline, so that the GRPs can be edited for final presentation to the Area Committee at their December 9th meeting.

BH-1 Winthrop –Heather Warchalowski of the DCR noted that Snake Island should list upland tern and plover habitat and asked if there were tactics for shoreside recovery for the outer beaches. DeCola stated that they were excluded because they are high energy beaches where boom would not be used, but that if there were shoreside recovery points those could be added to GRP. Warchalowski stated that there were a few points where it would be easy to access the outside beach for



recovery, although plovers nest in some area. It was agreed that Warchalowski would provide information on recovery areas and the GRP would include a strong caution not to access these areas during plover nesting (April-October). It was also agreed that bird nesting notes would be added to "Special Considerations" for all sites where nesting occurs, as this information does not appear to be captured in the current drafts. Dave Roach of the Division of Marine Fisheries noted a boat ramp was missing and would send coordinates to Queen or DeCola.

BH-2 Chelsea River – DeCola noted that all boom on this site is Co-op tactics. She asked the group to review the way Co-op tactics are presented on the GRPs and ensure that the language was clear regarding the difference between GRP & Co-op tactics. Queen asked for input on names of facilities and Cox said he would send them.

BH-3 Mystic River – Johnston noted that there are private boat ramp at Distrigas and Little Mystic. He also expressed concern that the GRP includes no tactics upriver of the lock. Simenas and Packard explained that the lock is the inland boundary of the Marine Oil Spill Program, which funded this project, and therefore the GRP could not extend any farther upriver. DeCola apologized for including this area in the site survey. Johnston pointed out that spills originating above the lock could still migrate downstream. Packard agreed and noted that the lock should be used to control the spill and prevent migration, and a statement to this effect will be added to the GRP. They agreed to make sure contact numbers for DCR (Bill Gode, in charge of dams in Boston) would be included on this GRP. DeCola asked if Packard was comfortable putting a footnote re: booming upriver not being included in the GRP but still being important to control the source. Guzman noted that the power plant intakes will be boomed and the group agreed that Boston Generating will be added to the diagram as well as a note to contact Massport for tactics EX01e and EX01f.

BH-4 Inner Boston Harbor – DeCola noted that this was a challenging site. Johnston remarked that there was no diversion boom to keep oil from the Charles River. DeCola suggested the footnote about the lock should be added here, with the DCR lock contact information. Johnston brought up the fact that no cultural resources are mentioned (USS Constitution, etc.). Popovich and Garcia remarked that the USS Constitution and other cultural properties have their own protection plans.

BH-5 South Boston – Wellock suggested several changes: Change Black Falcon Terminal label, and change EX-01b label to Reserve Channel. In directions, change "north of Castle Island" to Conley Terminal. Also add Massport to Special considerations for a contact for EX-01a.

BH-6 Neponset River – No comments.

BH-7 Quincy Bay – No comments.

BH-8 Hough's Neck – Margaret Laforest (Quincy City Council) suggested there be ebb tide tactics added here. DeCola noted that the EX boom would be released during an ebb tide and that it is lined that with sorbent because of the shallow water.

BH-9 Town River – DeCola noted that this GRP has some ebb tide strategies.



BH-10 Fore River – Milone said that all notations of ‘East Weymouth’ should be changed to ‘North Weymouth’. They clarified that Milone had an earlier draft of the GRP and that the naming had been fixed during the last round of tactics revisions.

BH-11 Weymouth Back River – Warchalowski suggested adding a 2nd shoreside recovery at Upper Neck Cove. Milone suggested adding Weymouth Shellfish Constable to the contact list this site.

BH-12 Hingham Harbor – No comments.

BH-13 Weir River – Add Hull to the contact list.

BH-14 Hull – No comments.

BH-15 Peddocks Island – DeCola noted this site is the first of several for the Harbor Islands, and that the islands would be challenging to protect due to their isolation. Denise Sarno-Bucca from DCR noted that Grape and Slate Islands were not included in any of the Boston Harbor Island sites, and Queen and DeCola clarified that it was because no tactics had been developed for those, but recognized that there was probably a need to show that the islands had been considered rather than just left out of the process. Queen suggested pulling those islands into this GRP site.

BH-16 Thompson Island – No comments.

BH-17 Spectacle and Long Island – No comments.

BH-18 Boston Harbor Outer Islands – Warchalowski noted that at the bottom of the map where shoreside recovery is located is a Least Tern Nesting Area, which occurs April through August. It is variable, she said, in the number of terns. DeCola asked for input on any nesting information and said that notes for responders could be included in the GRP. Warchalowski asked about a notation to coordinate with the Department of Public Works, to which DeCola clarified that this was only in case of the need to build a beach berm. Warchalowski replied that the DCR has all the equipment necessary to build a berm. Chris Bresnahan (MADEP NERO) noted that responders should not implement the beach berm building without talking to Unified Command. It was agreed that the Contacts list would be updated to clarify the purpose of certain contacts, and that DCR would replace DPW for the earth-moving equipment. A note will be added to special considerations for all sites where beach berms are used noting that Unified Command should make all decisions about implementing beach berms and that special permitting would be required.

Testing program

Jim Lally asked for an explanation of the MADEP’s GRP Testing Program. DeCola provided background about how exercises are planned and implemented. Packard spoke about the program, saying that it is a chance for the towns, USCG, EPA, and other organizations that are invited to see how well the GRP can be implemented. Lally asked if the town responders use the MADEP equipment and Packard answered in the affirmative. He stated that the MADEP is trying to do 4-6 per year but that may be expanded next year, and that the goal for 2011 would include at least 2 BHGRP sites. Popovich said that while the tests provide training value, they are also important to test the GRP tactics. He remarked that at times the testing can result in huge changes to the GRPs and Packard noted the Vineyard Haven/Lagoon Pond test done in 2009 as one that was very challenging. Lally asked about DEP’s plans to purchase equipment for Boston and Packard noted that a meeting is planned,



but that DEP does not intent to replace any of the Co-ops functions; they will purchase equipment to supplement the capacity already in place.

Area Committee Meeting

Pamela Garcia discussed how GRPs become part of the Area Contingency Plan. She noted that the most valuable part of a GRP is the opportunity to involve local communities ahead of a spill. She urged workgroup members to come to the Area Committee meeting (12/9/10 at the Boston USCG base, 9:00 am to noon) and mentioned that there is a section on the agenda for member updates. She noted that the Area Committee will vote on whether to incorporate the BHGRP into the Area Plan at this meeting.

Garcia mentioned that Steve Lehmann (NOAA) will at the meeting to talk about some lessons learned during the Gulf spill that can be applied locally (e.g., how to protect historical properties and endangered species). She also noted that Kurt Hanson from the USCG R&D center may be on hand to talk about the alternative technology response group in charge of inventions during the Gulf spill. Some of these technologies that didn't work in the Gulf may work here.

Action Items

- Comments by November 26, 2010
- Nuka will incorporate changes to GRPs
- Dec 9 Area Committee meeting in Boston

DeCola closed out the meeting by thanking everyone for their participation and attendance and asked that any further input and comments be made by November 26, 2010. Johnston thanked us the MADEP and Nuka Research and Planning Group.