

Craney Island Expansion Feasibility Study
Mitigation Subcommittee Meeting Minutes
July 24, 2002

1. Introductions. A list of attendees is attached (attachment 1).

2. Goals and objectives of this subcommittee (review) and review of minutes of June 21, 2002 meeting – The minutes of the previous meeting were reviewed and discussed. Regina Poeske (EPA) began discussion of minutes by noting that EPA has not agreed to the process of this meeting. They have prepared written comments to the June 21 minutes, but because Regina was on conference call the written comments were not available for distribution to the committee members. Revisions were made to the minutes based upon comments received from other subcommittee members. (Revised minutes were made available to the subcommittee via e-mail on August 2, 2002). Bert Parolari (DEQ) reminded the group that we are not going through a regulatory permitting process. Suggested that we replace the word “comprehensive” to “conceptual” to describe the mitigation plan that the subcommittee is developing. Also, DEQ will not enter into an MOA prior to going through their regulatory process. Perhaps a non-binding agreement to continue to work cooperatively on a mitigation plan may be more appropriate. It was also suggested that the word “develop” be replaced with the word “discuss.” It was agreed that these parts of the Plan of Action would be revised. Patti Jackson stated that we need to look at mitigation in both the James and the Elizabeth Rivers. The expansion site also affects the James River. Marjorie said that she believes that all the mitigation should take place in the Elizabeth River.

3. Review Background Environmental Resources Information & Share Additional Information Relative to Project Area – Summary of July 18, 2002 Meeting with VIMS Fisheries Scientists - Several people noted additional potential sources of information. These include HRSD’s benthic monitoring program near their outfalls – one of which is offshore of ODU’s sailing enter in the main stem of the river. George Ruddy (FWS) and Ruth Beck (College of W&M) are discussing bird use of Craney Island. A Master’s

thesis was done on small mammal use at Craney Island by an ODU student under Bob Rose. Trish Bargo (REMSA, Inc.) and Jack Musick (VIMS) have information on sea turtle and marine mammal use of the area. Walter Priest (VIMS) provided a synopsis of meeting held between the Corps and VIMS fisheries scientists Rom Lipcius and Roger Mann on July 18, 2002. The east expansion footprint is not a big hard clam or oyster area based on 2000/2001 surveys by VIMS. Blue crabs – no site specific data – crab pot counts show utilization though unknown if area is crab migratory pathway or resident area. The minutes from that meeting are provided as attachment 2. Herb Austin (supervisor of VIMS finfish trawl survey) met with Walter and Tom Barnard separately. He is gathering trawl survey data for Elizabeth River and vicinity collected over the last few years and will provide. Under Herb's supervision Patrick Geer prepared an Essential Fisheries Habitat (EFH) report (June 2000) for Virginia Department of Transportation (VDOT) based on seven months of survey work at stations at the mouth of the Western Branch, Scott's Creek, and in the main stem off Lambert's Point. He will provide this report for our use.

4. Craig Seltzer provided a schematic drawing showing the cross-section of the Elizabeth that would be filled and dredged as part of the proposed east expansion (attachment 3). This drawing was prepared by John Boon (VIMS) to demonstrate why (he thought) the 3-D hydrodynamic modeling results did not show any impacts on flushing volumes in the Elizabeth related to the east expansion. The drawing demonstrates that there is no change in the cross-sectional area of the river because the dredging (widening and deepening of the channel) offsets the fill that takes place with the expansion. This off-setting widening and deepening of the channel will result in a no-net-loss of open water volume.

5. Mitigation Analysis – Candidate Locations Where Mitigation Can Be Accomplished - The Corps prepared a GIS map showing specific locations where different types of mitigation could be accomplished in the Elizabeth and lower James Rivers. The maps depict specific locations where mitigation could be accomplished in all the different areas that have been discussed: oysters, wetlands, SAV's, sediment clean-up, etc. It was noted that there are additional wetland restoration sites not depicted on the map (contact:

Walter Priest). Bird habitat enhancement for terns is available at Monkey Bottom (Navy property), near Willoughby Bay. It was noted that, as part of a VIMS Thesis, some SAV planting was done in Lafayette River – this location is not noted on GIS maps for SAV restoration and may be a candidate location. Some suggested that the target areas should be in the Elizabeth River. Patti Jackson noted that the area of impact is also located in the lower James River – should be looking at system impacts. Dave Schulte (Corps) discussed oyster restoration. He indicated that, based on maps provided by VMRC, there is at least 9 acres of restorable habitat in the Elizabeth, but that could be a lot higher. Over 1000 acres are available in the lower James for oyster restoration. George Ruddy asked if VIMS could do trade-off ratios of productivity lost with expansion vs. that gained with oyster reefs. Walter P. said he thinks that they can if they have the right information. There is information available on locations for stormwater retrofits – ERP will provide this information. A concern was expressed (Patti) that we not call something mitigation when is required by law/regulation for someone else to do. Stormwater is an issue that the localities have been mandated to address. It was suggested by others that we focus attention on projects that are optional (not required) and are unlikely to be funded in the future.

6. Develop Mitigation Weighting Factor – A hand-out was distributed presenting two matrices (attachment 4) to be used to evaluate the proposed mitigation alternatives using a benefits scoring analysis. Part 1 uses functional attribute categories to score the various mitigation options. Part 2 presents weighting factors to score the various mitigation options. The subcommittee scored the first category in Part 2 of the evaluation at the June meeting – “in-kind relatedness.” The second category was scored at this meeting - “large scale ecosystem benefits.” This is defined as “effectiveness of mitigation option to influence a large geographical area over time.” Each person in the group scored the option (1 to 10) and the average score was calculated and assigned to each mitigation option (several abstained from voting – see below). The following points of discussion and comment surfaced during the course of assigning the numerical scores:

Oyster Restoration – a higher score may be attributed here because planktonic oyster larvae may be distributed over large geographic areas; water quality benefits related to filtering capacity of oysters may be realized over large areas. Score = 7.8

SAV Restoration – Used by migratory species; adults and juveniles; provides water quality benefits. Score = 8.0

Wetland Restoration – serves as base of food chain; detrital export. Score = 7.5

Sediment Clean-Up – ambient water toxicity may be affected by storm activities, ship traffic; more local effects; not too much in broad scale benefits. Score = 4.9

Conservation Areas – benefits land and water; primarily local benefits; migratory birds. Score = 5.0

Shore-Stabilization – mostly a localized effect/benefit; protects shoreline habitat. Score = 4.2

Fish Habitat Enhancement through Dam Removal or Fish Ladders – only a limited number of species benefit from this option; bringing areas back into production will help resident local fisheries as well as anadromous fisheries. Score = 5.1

Clam Management Sanctuary – potential filtering and spawning in all of harbor/lower James and vicinity. Score = 6.0

Bird Management Plan at Craney – management plan now avoids takes; no current long term plan to attract species; 16 species of waterfowl; 1000's of birds; spring and fall migration; potential wide ranging benefits but just for birds. Score = 5.2

Storm Water Retrofit – water quality benefits beyond the system itself and could benefit many organisms; reducing loads and toxics could have widespread water quality/habitat effects. Score = 6.2

Artificial Reefs – migratory and predatory fish use these areas – goes beyond footprint of fish reef; basically fish aggregation structures, question as to increased productivity. Score = 4.9

Nesting Islands – 15 different waterbirds could be attracted and sustained if constructed and maintained correctly; are we talking about enhancing an existing island or creating a new island? Probably more likely creating a new island (in open water). Score = 5.5

7. Several people abstained from providing scores and from the surrounding dialogue. They were asked to provide an explanation in writing. The following reasons were provided:

Marjorie Mayfield (ERP): As requested, here is my written comment on why I did not participate in the ranking of mitigation options using the criteria of "large scale ecosystem benefits." The group agreed to define this criteria as the degree to which each option would benefit the entire Chesapeake Bay, Hampton Roads and Elizabeth River. The impact of the Eastward expansion occurs primarily in the Elizabeth River watershed. In my opinion, mitigation benefits should be gauged primarily by the degree of benefit to the Elizabeth River watershed.

Also for the record, as discussed, while I applaud the Corps for the obvious extra effort to reach a new level of stakeholder involvement, I am increasingly uncertain of the value of the ranking process you are using, based on the lack of common understanding of technical issues involved.

Patti Jackson (James R. Assoc.): - Thanks for the info. You asked us to let you know why we were not ranking the mitigation options. I have a couple of concerns. First of all, I am not sure that a project of this magnitude can be sufficiently mitigated within the zone of impact. I am concerned that by arbitrarily assigning values to the options presented, we may give the impression that it can be properly mitigated. I think that more attention should be given to the no-build option, and that the avoidance, minimization, mitigation scenario should be further explored. Another concern is that the value and success of the mitigation options presented will depend upon where they are implemented. If they are arbitrarily ranked as if they have equal acre-for-acre value, this may be treated as if it is fact, and result in unsuccessful mitigation results. Additionally, I am concerned about the representation on the subcommittee. I would feel more comfortable if the rankings were being performed by unbiased scientists, rather than including the regulatory agencies and the applicant's representative. It also depends upon who shows up at each

meeting. Is it really appropriate for 4 or 5 Corps representatives to each have a vote? It seems like stacking the deck.

8. Concluding Group Remarks, Set Date for August Meeting – The follow-up meeting will continue with the process of assigning numerical scores to the mitigation options in the remaining weighting categories and making continued progress through the three-step Plan of Action. After checking calendars, it was agreed that the next meeting will be on August 26, again at VIMS if the facility is available on that date.

9. The meeting adjourned at 3:45 pm.

Craney Island Expansion Mitigation Subcommittee
July 24, 2002 Meeting
List of Attendees

| Participant's Name | Agency | Phone Number |
|---|--|--|
| Craig Seltzer Dave Schulte Pete Kube (Doug Martin) | Corps of Engineers | (757) 441-7390 (757) 441-7007 (757) 441-7504 |
| Regina Poeske (call-in) | EPA | (215) 814-2725 |
| Bert Parolari | VA DEQ | (757) 518-2166 |
| Heather Wood | Virginia Port Authority | (757) 683-2152 |
| George Ruddy | U.S. Fish and Wildlife Service (Chesapeake Bay Field Office) | (410) 573-4528 |
| Morris Roberts Walter Priest Tom Barnard | Virginia Institute of Marine Science (VIMS) | (804) 684-7260 (804) 684-7385 (804) 684-7383 |
| Tracy West | Virginia Marine Resources Commission (VMRC) | (757) 247-2256 |
| Ruth Boettcher | Virginia Dept. of Game & Inland Fisheries (VDGIF) | (757) 442-2429 |
| Ruth Beck | College of William & Mary | (757) 221-2217 |
| Patti Jackson | James R. Association | |
| Marjorie Mayfield | Elizabeth River Project (ERP) | (757) 625-3648 |
| Lee Hill | Dept. Conservation & Recreation | (804) 786-3998 |

Attachment 1

Craney Island Expansion Feasibility Study
Meeting at VIMS - July 18, 2002 – 0900-1200

Attendees: Rom Lipcius, Roger Mann, Walter Priest, Tom Barnard (VIMS); Dave Schulte, Doug Martin, Peter Kube, Craig Seltzer (Corps)

Topic: Fisheries in the vicinity of the proposed east expansion of Craney Island Dredged Material Management Area and Potential Impacts of the Proposed Expansion to Fisheries

1. The meeting was requested by the Corps in response to concerns expressed by members of the Craney Island Expansion NEPA Technical Committee and the Mitigation Subcommittee. These concerns centered around the adequacy of the fisheries data presented in the natural resources report distributed to the committees. Three fisheries experts (Roger Mann – shellfish; Rom Lipcius – crabs; Herb Austin – finfish) were invited to attend this meeting to provide insight on information that may be available within the footprint of the proposed east expansion and for the project area and to discuss potential impacts of the project to these resources.

2. Roger Mann discussed the hard clam standing stock survey done in the area of the proposed east expansion (Area 30 – 452 acres) during 2000/2001. Twenty-four stations were sampled in Area 30 with a hydraulic patent tong with coverage of one square meter and penetration about 8 inches. The entire tong contents for each station were retrieved and returned to a cull board on the vessel (often in excess of 50 kg of material including substrate). The entire sample was then washed and all molluscs were separated by species. According to report prepared by Juliana Harding and furnished to Roger: “The only invertebrate we found in 24 stations (within Area 30) was a single live hard clam. We looked for oysters, *Macoma*, *Mya*, *Tagelus*, *Ensis*, *Cyrtopleura*, *Noeshia*, *Blood Arks*, *Urosalpinx*, and *Eupleura* in Area 30 and found none.” According to Roger “...of all the 44 polygons which were sampled in the Hampton Roads Harbor and vicinity (over 30,000 acres), this one could be filled in and would do the least damage (to molluscs).”

3. Rom Lipcius discussed the importance of certain bottom dwelling species as food organisms for crabs. Particularly important are the small bivalves *Macoma baltica*. His experience is that shallow areas (1 to 4 feet) in the tidal estuaries are more productive for *Macoma* than the deeper water bodies and that these areas are often overlooked in sampling efforts designed to look at the health of the Bay (e.g., BIBI investigations for Chesapeake Bay Program).

4. As regards the occurrence of crabs within the proposed east expansion footprint, Rom mentioned that one easy way to get a relative idea of occurrence is to look for crab pots in the area. This will tell you whether crabs are present and are consistently being caught by commercial watermen. Rom mentioned, however, that it would not be possible to determine if the crabs are just migrating through the area to other portions of the river or if they are actually feeding in this area. The only way to make that call would be to have a good idea of whether there are significant numbers of food organisms like *Macoma baltica* within the east expansion site. Rom did not feel that the migratory pathway (crabs

entering and exiting the river) would be jeopardized by the proposed expansion. The dredging associated with the expansion would provide more deep water sanctuary for the crabs which may be a positive effect (i.e., more difficult for commercial watermen to catch the crabs). Rom indicated that this area is not a nursery ground for crabs.

5. A discussion took place on the idea of sampling the proposed site for larger macroinvertebrates like Macoma baltica. The sampling equipment would be a box core which could sample as deep as 12 inches (approx. 35 cm), compared to approximately 8 inches (approx. 24 cm) for the hydraulic patent tong. Since species like Macoma may burrow down as deep as 30-35 cm, the box core may more adequately sample this component of the benthic population. This survey could be done fairly quickly and inexpensively using a 8x12x16 inch box core and a 2-5 mm sieve at approximately 20 stations given the homogeneity of the site. The group decided that, before making this decision, Dan Dauer (ODU) should be consulted to see if this component of the benthic population was sampled during the B-IBI investigations in this area. Craig Seltzer will consult with Dan.

6. The group also discussed impacts to fisheries and potential mitigation for those impacts. Rom and Roger agreed that the degree of impact (of filling this open water area) is correlated to whether the area is serving as a major feeding ground or whether it is merely a migratory pathway. If it is serving as a feeding area, then replacing this site with another feeding area for fisheries would be a reasonable form of compensatory mitigation. They agreed that oyster reefs could provide this replacement and the type of productivity and feeding area lost. A simple analysis would involve estimating the existing productivity of the east expansion site as a fisheries food source, then comparing it to the productivity provided by an acre of oyster reef in the Elizabeth River. Lori Sorabella (VIMS) is currently looking at oyster reef productivity in the Elizabeth River. Dave Schulte will check with her to get information. If the area is serving merely as a migratory pathway, this pathway will be shifted to the east or will take place in the deeper waters created by dredging the access to the east cell port and no significant effect on migration is envisioned.

7. Herb Austin was not able to attend the meeting. Walter Priest will coordinate with Herb to get his input on fisheries information that may be pertinent to the study area – especially the Elizabeth River and the project vicinity. The VIMS Juvenile Fish and Blue Crab Stock Assessment Program Bottom Trawl Survey Annual Data Summary Report (Volume 1999, page 5) indicates that “...Sampling of the Elizabeth River was started in November 1999 and was performed approximately every six weeks until May 2000. Four fixed stations were chosen and two trawls were done at each station. The stations were selected to cover an area above, below, and at the site of a proposed bridge crossing by the VDOT.” Walt will also discuss potential fisheries impacts with Herb and will get back to the Corps with the information acquired.

8. The meeting concluded at 1200.

Attachment 3 – Diagram of Channel X-Section
Attachment 4 – Environmental Benefits Scoring Matrices