

Craney Island Expansion Feasibility Study
Mitigation Subcommittee Meeting Minutes

June 21, 2002

(note: EPA has provided comments to these minutes which appear at the end of this document. The Corps has provided responses to these comments. See attachment 4.)

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

2. Goals and Objectives of this Subcommittee – Using a hand-out (attachment 2), a three-point Plan of Action for this subcommittee was presented and discussed. The Plan of Action is modeled after the Port of Los Angeles/Long Beach (POLA) project where 570 acres of open water area was converted to upland for port facilities using dredged material. A template showing the general POLA process was provided. The committee was asked to provide input and any suggested changes to this course of action. There were no objections to pursuing this course of action. It was questioned whether development of a mitigation plan means that the subcommittee endorses the project. It was agreed that only the thorough and more comprehensive NEPA documentation process can fully answer the question of environmental acceptability. The mitigation analysis is only one part of the NEPA process and documentation and does not, by itself, constitute endorsement of the proposed project. The mitigation analysis addresses the locally preferred plan of east expansion. It is primarily focused on the direct impacts related to the loss of approx. 580 acres of bottom area and open water habitat related to the proposed fourth cell east expansion.

3. Review Background Environmental Resources Information & Share Additional Information Relative to Project Area – The subcommittee was provided a natural resources document about one month prior to the meeting. Hard-copy portions of the document (revised based on members comments) were provided at the meeting and revised and dated electronic versions will be made available throughout the summer as new information is added and corrections are made. Dan Dauer (ODU) gave a presentation on Benthic Index of Biotic Integrity (BIBI) investigations in the broader Chesapeake Bay, lower James River and specifically the Elizabeth River. The BIBI

information is presented in the natural resources document and information on BIBI can be found at www.baybenthos.versar.com. Dan noted that water quality is improving in the Elizabeth River. He also noted that some of the deeper burrowing forms of benthos are not sampled with the gear used for the BIBI work. That's a segment of the population that may be left unaccounted for.

EPA mentioned that the most recent finfish data presented in the Corps report is from 1984 and that this information may be outdated. Others indicated that more recent information is probably available from VIMS and ODU.

Subcommittee members discussed other natural resources information in the project area. A survey of hard clam populations in the project area was conducted by VIMS and a report is available covering the period September 1, 2000 – August 31, 2001. The area of the proposed expansion is covered in this report. It was suspected that similar information may be available (from VIMS – John Onley, Herb Austin, and Rom Lipcius) on trawl surveys for finfish and crabs. Ruth Beck noted that much of Craney Island is being taken over by Phragmites (common reed). She will also provide a comprehensive inventory of avian species documented at Craney Island. Randy Owen noted that there is an extensive crab pot fishery in the Elizabeth River. There is a clam brood stock sanctuary at Middle Ground Light.

4. Mitigation Analysis – The compensatory mitigation alternatives being considered were discussed and additional mitigation alternatives were suggested. The additional mitigation options suggested included:

- Mitigation within the Craney Island facility itself (for bird habitat) including predator control, on-site enhancement, and development of a management plan for birds.
- Stormwater Abatement – Look at retrofit and other innovative options.
- Build islands for bird nesting habitat

- Enhancement of existing (or build new) broodstock sanctuaries for clams (existing location – Middle Ground Light)
- Artificial Fish Reefs

5. Develop Mitigation Trade-Off Ratios – A hand-out was distributed presenting two matrices (attachment 3) 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. On-site, in-kind mitigation (i.e, grading back waterfront property near Craney Island to create benthic habitat) is not practical or technically feasible. Off-site, out-of-kind mitigation is, therefore, the focus of this mitigation plan. The geographic region of consideration agreed upon by consensus is the Elizabeth River, Hampton Roads Harbor, and lower James River systems - and the closer to the area of impact the better. Rather than going through the labor intensive exercise of scoring the benefit or functional values of each mitigation alternative (Part 1), it was generally conceded by the group that the various out-of-kind mitigation options listed would provide varying types and degrees of compensatory functional benefits. For this reason, all the mitigation options can be considered in the mitigation analysis and no mitigation option listed was eliminated in Part 1. In Part 2 of the evaluation the group (except for two people: EPA and VMRC – see explanation below) assigned numerical scores to the mitigation options in various weighting factor categories. The first category scored was “in-kind relatedness.” This is defined as “similarity of the restoration (or mitigation) option to the disturbed habitat type.” Each person in the group scored the option (1 to 10) and the average score was calculated and assigned to each mitigation option. The following points of discussion and comment surfaced during the course of assigning the numerical scores:

Oyster Restoration – improves benthic diversity and habitat; water column benefits;

replaces benthic component lost – although may be a different species composition;

SAV Restoration – improves benthic habitat and diversity; provides nursery areas for finfish and shellfish;

Wetland Restoration – provides fisheries habitat, invertebrates habitat; losing fish habitat with expansion; different than what is lost; good juvenile use

Sediment Clean-Up – high score because seems to closely replace that being lost; (F&WS comment) doesn't address losses to water-column – only to the bottom – gave a lower score (6) because of that

Conservation Areas – generally agreed that it is not overly in-kind related; mostly water quality benefits and habitat for wildlife

Shore-Stabilization – minimal in-kind relatedness; actually prevents more open water from being created; habitat components (wetlands, SAV's, etc) can be designed into these projects.

Fish Habitat Enhancement through Dam Removal or Fish Ladders – only a limited number of species benefit from this option

Clam Management Sanctuary – enhances bottom habitat and benthos;

Bird Management Plan at Craney – management plan - minimal in-kind relatedness

Storm Water Retrofit – a water quality issue – not a habitat - minimal in-kind relatedness

Nesting Islands – building islands results in loss of bottom - minimal in-kind relatedness

Artificial Reefs – fish habitat; epifaunal organisms attach to reef structure; enhances benthic productivity; does not address water column effects.

Several people abstained from providing scores and from the surrounding dialogue. The following reasons were provided:

EPA (Regina Poeske) – I am not ready to make these decisions. I need more information on impacts. I am not sure that we understand impacts enough to know if the project can be mitigated.

VMRC (Randy Owen) – We can provide natural resource information but cannot be part of mitigation plan development. Need to re-evaluate with management to make sure that there is no conflict of interest.

6. Concluding Group Remarks, Set Date for July 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. It was suggested that another weighting category be added which is “what is the feasibility of the option and the likelihood of realizing benefits?” The category is

named “Risk/Success” on attachment 3. The Corps, with the help of all the subcommittee, will continue to search for updated natural resource information and the Corps will coordinate with natural resource experts (e.g., Rom Lipcius, Herb Austin, and John Olney – VIMS fisheries) to solicit opinions on impacts. Each member of the group agreed to continue to participate with the Subcommittee in working through the mitigation analysis. The next meeting will be in late July and the subcommittee will be apprised of date/location as soon as possible.

7. The meeting adjourned at 4 pm.

Craney Island Expansion Mitigation Subcommittee
June 21, 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	EPA	(215) 814-2725
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
Dan Dauer	Old Dominion University	(757) 683-4709
Randy Owen	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
Joe Thomas Marjorie Mayfield	Elizabeth River Project (ERP)	(757) 625-3648
Lee Hill	Dept. Conservation & Recreation	(804) 786-3998

Attachment 1

Craney Island Expansion
Plan of Action for Development of Mitigation Plan

Background: A NEPA Technical Committee comprised of Federal, State, and local agencies and groups first convened on November 27, 2000 and has had three subsequent meetings, the latest of which occurred on April 3, 2002. The primary focus of the NEPA Technical Team is to assist the Corps in developing the scope and breadth of the NEPA document and to identify significant resource concerns which should be addressed. The committee is also assisting in the development of a comprehensive mitigation plan.

Mitigation, which includes avoidance, minimization, and compensation, will be addressed in the alternatives analysis portion of the NEPA document. Critical to this analysis is the identification of a recommended plan so that the scope of mitigation can be clearly assessed. A number of compensatory mitigation alternatives have been identified by the NEPA Committee. A large task still to be tackled by the committee is to identify, specifically, which alternative(s) at specific geographical locations can/should be proposed for compensatory mitigation to offset the loss of a significant amount of open water habitat. Corps regulations (ER 1105-2-100) require that all mitigation be fully justified through incremental cost analysis. A Mitigation Subcommittee has been identified to accomplish these tasks.

Proposed Plan of Action: The Mitigation Subcommittee will meet monthly during the summer (June, July and August, 2002) and as needed after August. The primary objectives of these meetings will be three-fold:

1. To develop discuss conceptual mitigation trade-off ratios. For example:

1 Acre of Mitigation Option	Compensates for ___ Acres Lost Open Water Bottom Habitat
Sediment Clean-Up	?
Oyster Ground	?
Wetland Restoration	?
SAV Restoration	?
Etc.	

The rationale for developing the trade-off ratios is that the mitigation option(s) may provide an equivalent or an even more enhanced or improved habitat condition than what currently exists at the site of the proposed expansion. The ratios also provide justification for recommending mitigation options which may cost more (per acre) but can be justified because they have more incremental benefits.

2. To ~~develop~~ discuss a conceptual ~~comprehensive~~ mitigation plan for the loss of open water habitat using several mitigation options. For example:

Mitigation Option	Percentage of Mitigation Plan
Sediment Clean-Up	?
Wetland Restoration	?
Oyster Ground	?
SAV Restoration	?
etc.	

The rationale for ~~developing~~ discussing a mitigation plan that includes several different mitigation options is that it reduces risk (by not placing all success confidence in one project) and provides aquatic ecosystem benefits over a broader range of habitat types.

Once the Mitigation Subcommittee ~~develops~~ discusses numbers 1 and 2 above, it will present its findings and recommendations to the NEPA Technical Committee in October 2002. These finding and recommendations will be presented in the Draft Report and NEPA document (target date: February 2003).

3. To develop a Memorandum of Agreement (MOA) or a Memorandum of Understanding (MOU) - As part of the ongoing development of the mitigation plan, the Subcommittee will develop a MOA or MOU with key Federal, State, and local agencies/groups. The MOA/MOU will serve as a cooperative agreement to continue the development of a mutually acceptable mitigation plan. ~~specify what mitigation projects (adequate to compensate for marine resource impacts associated with project construction) will be done, how they will be funded, and over what time period.~~ The development of the MOA/MOU will take place during the course of preparing and coordinating the Draft and Final NEPA document.

Note: It should be noted that the Mitigation Subcommittee will need to have the least cost plan identified in order to develop the mitigation plan for that option. Work accomplished by the Subcommittee prior to obtaining this information will focus on mitigation plan development for the Locally Preferred Plan of east expansion for port development.

Attachment 3 - (Separate Tables: Environmental Benefits Scoring: Parts 1 & 2)

EPA Region Comments (and COE Responses) on
Craney Island Expansion Feasibility Study
Mitigation Subcommittee Meeting Minutes
for June 21, 2002

The Environmental Protection Agency Region III provides the following comments on the June 21, 2002 meeting minutes. (The Corps of Engineers has provided responses to these comments.)

EPA believes the June 21, 2002 meeting did not establish a framework for developing appropriate mitigation trade-offs as represented in the minutes for several reasons:

Comment: The minutes indicate that the Norfolk COE provided information regarding the Port of Los Angeles (POLA) project which will act as a template for the Craney Island (CI) project mitigation plan development. The POLA information provided does not offer a model or a template for development of a mitigation framework because it describes only the end result of a process without providing any specifics as to how the parties came to this agreement. The Memorandum of Agreement only describes the contractual obligations of the parties involved which is obviously the end result of a negotiated process.

Response: The COE is only proposing that the POLA project be used as a generic template. We do not have minutes of their meetings – they are not available. It is up to us to negotiate our own way forward. There is no reason why we cannot use the POLA project as a framework and their MOA as a guide of what we might do. With the constructive input provided by VA DEQ at July 24 meeting, revisions have been made to the proposed plan of action that everyone (except EPA) has agreed to. Some participants seem to prefer to sit back and evaluate what the COE comes up with rather than to participate in the process to develop the course of action, mitigation, and plans themselves. The COE obviously prefers an active stakeholder involvement, and we are sure a better plan, more suitable to the stakeholders, would result from such a process.

Comment: In order for the POLA project to truly serve as a template for the Craney Island Project, the technical underpinnings of these agreements must be better understood. For instance, how did these agencies, develop trade-off ratios and what methods did they use to determine the functional capacity of the existing ecosystems? Also, why isn't the COE and EPA signatories to these documents?

Response: The technical underpinnings were not well documented by the participants. We're developing our own course of action for this particular project with the POLA project serving only as a generic template as a way to proceed. The technical underpinnings are not available and would likely not be found to be suitable or applicable to our unique set of circumstances, particularly considering the functional differences between east and west coast ecosystems. The most important lesson to learn from POLA

is that cooperation between the agencies provided a mitigation project that was probably much better than any one agency could have developed on their own.

Comment: Considering the time frame of the Batiquitos project, there should be ample monitoring data to establish project success. How successful was that project and where do the parties stand on the project in 2002? EPA believes that more information needs to be provided regarding those projects before it can be used as a template for this project. The MOA dated February 6, 1997 appears to a more suitable model. How does that project factor into the Batiquitos project? What, if any, monitoring data is available on that project?

Response: All the parties appear to be quite satisfied with the Batiquitos project. The COE has obtained several years' worth of highly detailed monitoring data (vegetative communities, habitat types, fish, birds, SAV, and benthos) and the monitoring data indicates that the project is performing well. The COE is not suggesting, however, that we necessarily build an identical Batiquitos-like mitigation project. We are only suggesting that we learn from the process that this particular project went through and see if anything might apply to what we are attempting to accomplish.

Comment: With the limited information provided regarding the POLA projects, EPA Region III does not agree with the minutes that indicate on page one "The committee was asked to provide input and any suggested changes to this course of action. There were no objections to pursuing this course of action". In fact EPA did respond that more information regarding the negotiated process for the POLA project was needed in order for any agreement to be reached on the use of those projects as a model. It should also be noted that the Batiquitos project MOA provided was signed in 1987 when the science of wetland compensation and mitigation was in its earliest phases. Much has been learned regarding the failures of wetland mitigation and the ability to successfully replace wetland function and value. This issue should be considered when determining the usefulness of the Batiquitos project as model for mitigation trade-offs.

Response: (See response above) The Batiquitos project was a restoration project – a return to natural conditions. The site was, prior to human disturbance, a very productive biological system. Restoring it was not a failure, unless failure can be defined as great increases in ecosystem outputs and native species abundance and diversity and a return of natural hydrologic conditions. Restoration projects, where site conditions are returned to a pre-disturbance condition, tend to have a good rate of success. Building a wetland where none was before is much more difficult, for example. We are not proposing creation type projects other than possible creation of a bird habitat island (which was suggested to us by members of the NEPA mitigation subcommittee), only restoration projects. Therefore, the COE feels confident that our plan will contain projects carefully screened to have a high chance of success. However, no absolute guarantees are possible in biological systems. EPA should be aware of this, and that the COE will commit the funds necessary to monitor mitigation projects to ensure success. If agreed-upon environmental benefits are not achieved, COE will undertake corrective measures.

Comment: Although EPA Region III appreciates the COE efforts at developing a team regarding the mitigation development, we can not agree that the opinion or best professional judgment of the group assembled on June 21, 2002 represents the best method to establish mitigation trade-off ratios. EPA still believes that there is little understanding of the ecosystem being impacted as well as the function and value of that system to the overall estuary, including the Elizabeth River and the Hampton Roads estuary. Until we can establish what is actually being lost in terms of ecosystem function we are only guessing at how to adequately replace those functions, if they can be replaced at all.

Response: Subject matter experts with decades of experience studying the local James River, Elizabeth River, and Chesapeake Bay ecosystems would seem to be the best sources of information. These experts are the scientists that the COE has relied heavily upon for contractual support (in the past) and current information. These subject matter experts also have a wealth of hard data to back up their opinions. Some of this data (e.g., Dan Dauer's 1999-2000 benthic BIBI investigations; Bob Orth's 2001 SAV surveys; DEQ's Elizabeth River Water Quality Monitoring 1999-2001) has already been provided to EPA. Based upon the COE meeting with VIMS fisheries scientists on July 18, the COE may also do additional work on the benthic community to address some limitations of the current data, and may do additional work on the fisheries community if existing information is deficient (we are currently obtaining trawl data from the VIMS fisheries expert – Herb Austin). A great deal of information is currently available and is being used to determine what is being impacted. So far, this data gathering has been a collaborative effort involving many of the stakeholders. The COE is still curious as to why EPA has yet to provide any useful input on natural resources to the committee considering that EPA's Chesapeake Bay Program has access to years of resource data in the project area..

Comment: The minutes on page 3 number 5 indicate that "Rather than going through the labor intensive exercise of scoring the benefit and functional values of each mitigation alternative, it was generally conceded that the various out-of-kind mitigation options listed would provide varying types and degrees of compensatory functional benefit." It should be noted for the record that no technical analysis of functional benefit, for the existing ecosystem or mitigation options, was provided. Therefore, EPA recommends the COE not use words such as functional value or indicate any type of technical analysis unless they can provide the information or data used to measure these functional values. The minutes should reflect that the values discussed and voted on at this meeting represented the best professional judgement of professionals from various fields of environmental science.

Response: It should be noted by EPA that the professionals consulted were all local experts with a thorough knowledge of the local area and that many of them are currently involved in various monitoring efforts in the local watershed and/or on Craney Island itself. Some of them (Dan Dauer, a recognized benthics expert; Walter Priest – a recognized wetlands expert; Mory Roberts – a recognized toxics expert; Ruth Beck – a

recognized avain expert,; just to mention a few) participate on the mitigation subcommittee. They have particular expertise to lend to this project well above and beyond a scientist without such experience. Their best professional judgement, based on years of research in the project area, should be weighted heavier as a result. An assessment of the baseline functions of the project area based on hard data (e.g., is it a feeding area for crabs or finfish based upon the makup of the benthic populations?), in combination with best professional judgement, will allow a determination of functional value to be made. Scientists have provided hard data on environmental resources and are continuing to provide this information. This information substantiates their professional opinions and will allow these assessments to be made.

Comment: Furthermore, the COE “Proposed Plan of Action” also indicates at number 1 that ‘the rationale for developing the trade-off ratios is that the mitigation options may provide an equivalent or even more enhanced or improved habitat condition than what currently exists at the site of the proposed expansion”. In order for this determination to be made a thorough and adequate analysis of the habitat condition is necessary. At present that information is not available and EPA can not agree that a best professional judgement approach, such as is being implemented by the mitigation subcommittee at present, will suffice for this analysis.

Response: Much of this data has already been provided to EPA. We provided a document describing baseline conditions. We have noted a few possible shortfalls in the present database and are moving to fix them. Exactly how much more information does EPA need about baseline conditions? EPA seems to want something to a level of detail that is above and beyond what is actually necessary to assess the impacts and create a mitigation plan. Just what type and extent of data do you want? Be specific.

Comment: It should also be noted that there was a discussion regarding the limited data on the existing environment. It is our recollection that representatives from the Virginia Institute of Marine Science, the Elizabeth River Project and Old Dominion University questioned the extent of data and the lack of recent data on the project area provided by the COE.

Response: The only dated information in the document that was noted by EPA at the meeting was the fisheries data. It is the COE recollection that members of the other agencies which you reference indicated that they believed supplementary data was available (and even provided potential sources of this information), although not yet included in our document. The COE has since met with VIMS and has talked to ODU and are gathering the most recent data they have, which is substantial. It should be noted that much can be accomplished in one meeting with a group of subject matter experts intimately familiar with local conditions that have collected years of monitoring data on local fauna and environmental conditions. The COE is now considering the possibility of funding what few additional data collection efforts might be necessary to fill the gaps. Enough data exists now to make a preliminary assessment of the impacts to the local area and region.

Comment: The minutes and other documentation received by EPA indicate that the mitigation subcommittee is developing a “comprehensive” mitigation plan for the Craney Island Project. EPA does not believe that the current plan represents a comprehensive approach because it does not mitigate for impacts related to other alternatives. Furthermore, the plan is not considering secondary and cumulative impacts related to eastern expansion because those impacts have yet to be quantified or qualified. The plan being discussed by this group is also not inclusive of other project impacts such as socioeconomic, cultural or environmental of fill for the eastern expansion of Craney Island.

Response: By group consensus at the July 24 meeting, the word “comprehensive” has been replaced with the word “conceptual.” The locally preferred alternative is highly likely to be the “worst case” scenario. It would make sense to create a compensatory mitigation plan for the worst foreseeable impacts. It will be much easier to do less if another option is selected than to start with an option with minimal impacts, and then try to apply that plan to a much greater impact area. The COE believes we would have to go through the entire process over again if this happened. Cumulative impacts (defined as “...all past, present and future actions that incrementally contribute to the cumulative effects on resources affected by the proposed action”), while identified in the NEPA document, cannot be compensated for by the mitigation plan that we are developing. In the CEQ “Questions and Answer about the NEPA Regulations” memo regarding the scope of mitigation measures that must be discussed it says, “The mitigation measures discussed in an EIS must cover the range of impacts **of the proposal**. Once the proposal itself is considered as a whole to have significant impacts, all of **its** specific effects on the environment must be considered (whether or not significant) and mitigation measures must be developed where it is feasible to do so. All relevant, reasonable mitigation measures that could improve **the project** are to be identified, even if they are outside the jurisdiction of the lead agency or cooperating agency” (NEPA’s 40 Most Frequently Asked Questions – Question 19). It says nothing about mitigating for cumulative effects, though we do consider all secondary and cumulative impacts related to the project in the EIS. Hydrodynamic modeling indicates no significant impact on the hydrodynamics as a whole. Migratory pathways for fish and blue crabs will still exist, in fact, blue crabs will likely benefit due to reduction in fishing pressure in the area. The whole concept of mitigation is to compensate for what is lost. If productivity is lost we’ll enhance it by mitigation projects elsewhere. Many impacts can be avoided or minimized, and this form of mitigation (in addition to compensation) will be used to the greatest extent practicable.

Comment: In conclusion, it should be noted for the record that EPA does not agree to the current course of action of this subcommittee for the reasons noted above. We refrained from “scoring” as noted in the meeting minutes at page 4 because, as stated above, we do not believe there is enough information regarding the existing environment and the ecosystem function (such as biological processes, biological productivity, migratory pathways, etc) to provide a meaningful analysis of the adequacy of any proposed compensation plan. Furthermore, we believe the impact analysis needs to focus on

function, rather than acreage lost, in order to truly understand the magnitude of the impacts related to the filling of ~600 acres of benthic and open water habitat.

Response: A great deal of this information exists and has been provided. The COE, in cooperation with the NEPA Committee members, will gather additional information to fill what few gaps exist. We do not agree with EPA's assessment claiming a lack of basic information about the impact area. More information on any site can always be gathered, that is the nature of science. However, at some point enough information is present to make informed decisions about the ecological function and value of any given site. With the exception of a few gaps the COE may fund additional monitoring efforts to fill, this information is available. The impact analysis does focus on function. This is the premise behind the COE attempting to cooperatively develop ratios for different mitigation options. We assume the various options have differing capacities to compensate for the ecological functions that would be lost if the locally preferred option (Eastward expansion of Craney Island) was implemented. We are working closely with a team of subject matter expert scientists and stakeholders to determine how these various mitigation options relate to the potential impact area. So far, EPA has not chosen to be a participant.

Attachment 4