EVIRONMENTAL QUESTIONNAIRE FOR CORPS OF ENGINEERS PERMIT APPLICATIONS Philadelphia District, Corps of Engineers Philadelphia, Pennsylvania 19107 CENAP-OP-R

INTRODUCTION AND INSTRUCTIONS

The District Engineer is required by law to assess the initial, cumulative, and long-term effects of any proposed permit on all aspects of the environment.

To speed the analysis of the probable impact of the proposed work, each applicant is required to submit appropriate environmental data as part of a permit application. We ask that you provide a thorough description of your proposed project and answer each question as it applies to the work and the results of that work. Complete and accurate answers will prevent unnecessary delays in processing your permit application

Parts I and II will be filled out by all applicants. Part I is self-explanatory. In Part II, the Environmental Impact Checklist, you should indicate the impacts of your project on all aspects of the environment that are listed. Use the space under "Qualifying Remarks" to indicate the specific impacts that your project will have. This may include types of plants or animals affected, specific adverse, beneficial, or mitigative effects, changes to existing conditions, etc. Although space for answers has been provided, you may wish to supply additional information on attached pages. If you do not anticipate an impact on a certain item, simply place a check in the "No" column.

Part III will be filled out by all applicants applying for a permit to perform dredging.

Part IV will be filled out by all applicants applying for a permit to perform filling operations. This includes activities such as filling behind bulkheads.

Refer any questions you may have concerning this supplemental form to the Regulatory Branch at (215) 656-6728.

I. <u>PROJECT DESCRIPTION:</u>

- A. <u>General Site Location</u>: Accurately locate the project site with respect to State, county, or other subdivision, and in relation to streams and rivers.
- B. <u>Specific Site Locations:</u> Completely locate the project site with respect to cove, creek, property owner, plot number, etc.
- C. <u>Description of Proposed Action</u>: Carefully describe the action proposed, including the method of construction, equipment, and materials to be used. Details in your description are important. Attach additional sheets if necessary.
- D. <u>Purpose of Proposed Action</u>: Define the purpose of the proposed structure or work. For example, the purpose of bulkheading may be to stabilize an eroding bank; whereas, the purpose for a pier may be for the mooring of a private boat, for access to a public or private facility, for a marina, or for another purpose.
- E. Submit color photographs of the site, with explanations of the views shown (prints only). Photographs help us to better understand your project. The more photographs you provide, the easier it is to understand and process your application.

PART II – ENVIRONMENTAL IMPACT CHECKLIST						
ENVIRONMENTAL IMPACT	YES	NO	QUALIFYING REMARKS			
A. Physical						
1. Topography						
2. Geological Elements and Leaching						
3. Air						
4. Transportation						
5. Handling of Hazardous Materials						
6. Spoil Disposal						
7. Sewage and Solid Wastes						
8. Water Resources						
a. Water Quality						
b. Hydrography, Circulation, Littoral Drift.						
c. Ground Water						
B. Biological		•				
1. Vegetation						
a. Terrestrial						
b. Aquatic						
2. Fish and Wildlife						
a. Mammals						
b. Birds						
c. Amphibians						
d. Reptiles						
e. Fish						
f. Shellfish						
g. Invertebrates						
3. Rare or Endangered Species						

ENVIRONMENTAL IMPACT	YES	NO	QUALIFYING REMARKS
C. Cultural			
1. Land Use			
2. Population Density and Trends			
3. Regional Development			
4. Historic Places			
5. Archaeological Sites			
6. Aesthetics			
7. Utilities			
8. Transportation Systems			
9. Recreation			
10. Public Health			
D. Other Factors			
1. Secondary Effects			
2. Controversiality			
3. Is significant dredging involved?			
4. Is significant filling involved?			

Considerations of a Dredging Proposal:

- A. Describe characteristics and locations of the proposed dredged material disposal site. Provide photographs.
- B. Is there a comprehensive plan for disposal sites that takes into account the accumulative effect over time and the decreasing amount of suitable sites for disposal?
- C. Describe the present land use of the disposal site.
- D. Describe characteristics of the material to be disposed, including:
 - 1. Physical source of material (i.e. sand, silt, clay, etc.) Give percentages of the various fractions if available.
 - 2. Chemical composition of material: Many areas, especially marinas, highly industrialized areas, etc., have sediments with high concentrations of pollutants (chemicals, organic material, etc.). These materials may be re-suspended or reintroduced into the water and result in serious environmental damage. If your proposed dredging is in an area such as described above, a chemical analysis of the material to be dredged should be provided.
 - 3. Dewatering properties of the material to be disposed.
 - 4. Compactability of material and settling rates of material to be disposed.
 - 5. Dredging and disposal schedule to insure that operations do not degrade water quality during times of anadromous fish migration.
- E. When the project involves land disposal, discuss the following:
 - 1. Method of disposal to be utilized, i.e., pipeline discharge, barge, hopper (underway or stationary).
 - 2. Describe method of dredged material containment (i.e. embankment, behind bulkhead, etc.)

- 3. What type of leachates will be produced from the spoil material and what is planned for protection of the groundwater?
- 4. Methods to insure that spoil water does not adversely affect water quality, both during construction and after completion of the project.
- 5. Provisions for monitoring during discharge: water quality, sediment transport, and precautions to prevent "short-circuiting" dumping.
- F. Consider and discuss the following for water disposal:
 - 1. Describe methods to be used for water disposal, including volumes and site selection.
 - 2. Describe the existing water characteristics at the site, including chemical analysis for water quality.
- G. Discuss the frequency and amount of maintenance dredging which will be required; discuss the resulting impacts.

H. Alternatives.

- 1. Discuss all alternatives to the project, including the "no action" alternative.
- 2. Discuss alternative types and methods of dredging and disposal, such as pipeline discharge, barging, or hopper method.
- 3. Discuss alternatives to dredging.
- 4. Discuss alternative areas of sites for spoil disposal.
- 5. Discuss impact of port docking patterns upon the demand for dredging. Can alternative patterns reduce the amount of dredging required to support port operations?
- 6. Support alternative means of construction that would prevent or minimize water quality degradation using EPA standards for guidance.
- 7. State in detail impacts resulting in alternative locations for the proposed project.

Part IV

CONSIDERATIONS OF A FILLING PROPOSAL:

- A. Describe in detail the existing characteristics of the area proposed for filling (i.e. aquatic area, marsh, mudflat, swamp, etc.). In your description, be sure to include the types of vegetation present and the types of animals that use the area. Provide photographs.
- B. Give the following information in regard to the project size:
 - 1. Total area to be filled.
 - 2. Size of underwater area to be filled.
 - 3. Area of intertidal zone to be filled.
 - 4. Area of wetlands to be filled.
 - 5. Proposed height of fill.
 - 6. Volume of material that will be used in filling.
- C. Describe in detail the material to be used as fill including as follows:
 - 1. Type of fill to be used (sand, stone, rubble, etc.). If the material is a composite (i.e., rubble), list the types of materials it will contain.
 - 2. Give the specific location of the source of this material.
 - 3. What types of leachates will be produced from the fill material and what is planned for protection of surface and groundwater?
- D. Carefully describe the method of fill, including the following:
 - 1. Method of fill placement, including equipment used in deposition and grading.
 - 2. Method of stabilization of banks from erosion, sloughing, wave action, boat wakes, etc.
 - 3. Method of stabilization of the surface of the fill.

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- 4. Length of time needed for completion of the project. State if filling will be continuous, intermittent, etc.
- 5. Method of controlling turbidity when filling an underwater area.
- E. Purpose of the Project:
 - 1. What is the intended use of the filled area?
 - 2. What structures, if any, will be constructed on the fill?
 - 3. What benefits would you gain from the proposed fill?

F. Alternatives

- 1. Discuss the "no action" alternative and how this would affect your present and future plans for the development of the area.
- 2. Discuss alternative locations for the proposed fill.
- 3. Discuss the use of elevated structures (i.e. causeways, elevated platforms, etc.) in place of the proposed fill.
- 4. Discuss any other alternatives you have considered prior to formulating the presently submitted proposal.