

Channel Management Plan

Upper Mississippi River 9-Foot Channel System Corps of Engineers - St. Paul District

1.0 Purpose

The Channel Management Plan is intended to serve as a comprehensive guide for planning, scheduling, prioritizing and budgeting non-dredging channel maintenance related work on the St. Paul District's portion of the Upper Mississippi River system. It will be used as a mechanism for coordinating these activities with other agencies and interested parties. It includes studies, repair, maintenance, and construction work related to wing dams, closing dams, shoreline protection, sediment traps, and other channel control features. The primary objective of this work is to reduce or control dredging requirements to achieve environmental and economic benefits. Other objectives are to provide a safer navigation channel, to use the river's energy for moving sediment to more strategic placement site locations, to reduce shoreline or dredged material placement site erosion that is impacting channel maintenance, and to correct channel maintenance situations that are causing adverse impacts. A related objective of this program is to increase knowledge of sediment transport characteristics for applications to the dredging program. This should result in better decisions on dredging dimensions, predicting dredging requirements and understanding placement site impacts. Work accomplished through the channel management program must be justified by providing a direct benefit to the program or to correct a problem caused by channel maintenance activities.

2.0 Process

There are many locations in the District where channel control structures have been identified for potential repair, maintenance or improvement. Some channel management activities such as repair/maintenance of existing structures or shoreline protection are relatively straight forward or minor in scope, and may not require significant pre-construction study and design.

For more complicated projects the process will be more involved, typically beginning with a scoping phase. The scoping phase includes problem identification, establishment of objectives, definition of the study area, and other steps necessary to begin a study. By definition, scoping involves identifying and initiating coordination with other interested Government agencies and the public.

Alternative identification will be highly dependent on the scope and nature of the problem(s) being addressed. Alternatives are evaluated for their effectiveness in solving the problem, environmental effects, costs, project economic benefits, and other factors as applicable.

Alternatives will be evaluated for their attainment of project objectives, engineering soundness, environmental acceptability, costs, and social acceptability. Plan selection would identify the alternative that best meets project objectives in a cost effective, environmentally acceptable manner.

3.0 Scoping/Early Planning

As noted earlier, the scoping phase includes problem identification, establishment of objectives, definition of the study area, and other steps necessary to begin a study. The following are the major tasks that will need to be completed for each study during the scoping and early planning phase.

A. Problem Identification - All studies will be initiated in response to an identified navigation or channel maintenance problem. The District will identify the navigation or channel maintenance problem the study is to address. The specific causal factors relating to the problem will be described and quantified to the extent possible with existing information. The degree to which causal factors can be managed will also be described.

B. Definition of the Study Area - The study area will be sufficiently inclusive to cover an area that can be considered a geomorphic and hydrologic unit. The study area will generally include the specific river reach of concern and any other areas that may be affected by a structural solution to the identified problem.

C. Identification of Planning Opportunities and Constraints - Opportunities pertinent to the study area, such as locations of beneficial use removal sites, environmental enhancement or restoration opportunities, recreational opportunities etc., will be identified.

All constraints and concerns associated with the study area as well as within the area of project influence will be identified. Beyond the mere identification of areas of concern, those constraints which would seriously affect project implementation would be specifically noted. Constraints may be institutional, hydrologic, engineering, economic, environmental, or social.

D. Define Goals and Objectives - Goals and objectives of the study from the navigation and channel maintenance perspectives will be identified by the District. Resource management agencies will be asked to define environmental goals and objectives for the study area.

E. Formulate Alternatives - Preliminary alternatives will be identified during the scoping phase. Each alternative would meet, at least to some degree, the goals and objectives for the study area. The alternatives need not be detailed at this stage, but a systematic array of alternatives and project features would be developed. This step would be conducted as a "brainstorming" session to draw out all potential alternatives and project features.

F. Preliminary Evaluation of Alternatives - A preliminary evaluation of alternatives will be conducted using available information and best educated estimates to assist in the early

screening of alternatives. The goal is to eliminate from further consideration those alternatives that appear to be technically infeasible, environmentally unacceptable, cost prohibitive, or otherwise not worthy of further evaluation. Data collection for this phase of the planning process may be necessary, but would be kept to the minimum possible.

1. Preliminary engineering evaluation - The preliminary engineering evaluation should consider the basic feasibility of the alternatives. Any alternative that has significant questions concerning its technical feasibility would be screened at this stage.

2. Preliminary environmental evaluation - The preliminary environmental evaluation would identify those alternatives that have significant environmental concerns (e.g., significant impacts to adjacent areas, compliance with water quality or other environmental standards, etc.).

3. Cost - A preliminary cost estimate would be obtained for the alternatives, to assist in identifying those alternatives that may be prohibitively expensive or unjustifiable in terms of benefits received.

4. Constraints - All alternatives would be evaluated in light of the identified project constraints. Those that violate a constraint would seriously be considered for elimination from further evaluation. If in the unusual situation that an alternative is not outright rejected because of a specific constraint, the method of evaluating the impact would be laid out.

G. Problem Appraisal Report - A Problem Appraisal Report (PAR) will be prepared which will document and summarize the scoping and early project planning. The PAR would screen the potential project alternatives as much as practicable. Once the PAR is endorsed by the River Resources Forum, the goals, objectives, and alternatives would not change without concurrence by the participating agencies.

4.0 Plan Evaluation and Selection

A. Develop alternatives - The remaining alternative plans would be developed in sufficient detail so that cost, beneficial effects, adverse effects, and probable degree of attainment of planning goals and objectives can be described. Plans would be developed with full consideration of constraints and opportunities that have been identified for the project area. Alternative plans would include all potential project features.

B. Compare alternatives - The alternative plans would be compared objectively and systematically on the basis of cost, beneficial and adverse effects, and probable degree of attainment of goals and objectives.

C. Select Preferred Alternative - The alternative plan that would best meet the planning goals and objectives in a cost effective, environmentally acceptable manner would be

selected as the preferred alternative.

D. Definite Project Report - The proposed action will be described in detail in a Definite Project Report (DPR). The DPR will include a description of the project planning process, NEPA documentation, a Section 404(b) Clean Water Act Evaluation, and a plan for construction.

5.0 Coordination

Throughout the development, planning, and construction of projects, there are varying degrees of involvement with numerous agencies, local interests, and Corps hierarchy. Interagency and public coordination are discussed in further detail.

A. Interagency - With channel management projects, there is involvement with the U.S. Fish and Wildlife Service (USFWS), the U.S. Coast Guard (USCG) and the Departments of Natural Resources (DNR) and Transportation (DOT) from the State within which the project is located and the State bordering the project. This team effort approach has been referred to above, but will be discussed here with more specific details on how this involvement typically would occur. It should be noted that only the minimum number of points at which interagency involvement would be needed are given below. Meetings and telephone conversations with agency representatives which may be needed during plan formulation are not discussed.

1. Initial - When a study is initiated, the agencies will be contacted. Agency representatives who will be directly involved in the project are identified at this time. These representatives are then contacted by the Corps technical manager. Generally a meeting will be held to initiate the study and subsequent meetings/coordination conducted during the scoping phase as needed.

2. PAR Review - The problem appraisal report is prepared by the District technical manager in conjunction with in-house staff. Any assistance needed from the respective agencies will be solicited. A draft copy of this report is sent to each agency for review and comment. The minimum review period for agency review of the PAR would be 30 days. Once comments are received, the PAR will be finalized and submitted to the River Resource Forum for endorsement.

3. DPR Review - The draft Definite Project Report is prepared by the District technical manager in conjunction with in-house staff. Included with the draft DPR will be an integrated environmental assessment, a Section 404(b)(1) evaluation, and other environmental documentation as needed. The public review period for the draft DPR will be, as a minimum, 30 days. Once the public review period has expired and comments are received, the DPR will be finalized and submitted to the River Resource Forum for endorsement.

4. Plans and Specifications - Involved agencies would be invited to attend the

in-house meeting which initiates plans and specifications work. Thereafter, they would be invited to attend any meetings at which critical decisions will be made. If effluent discharge is part of the selected plan, the appropriate State water quality agency will be asked to provide input into the design to meet water quality requirements. Towards the end of preparation of the plans and specifications, a Special Use Permit would be obtained from the USFWS if construction is to take place on refuge land. Any other required permits would also be applied for during this time period.

5. Construction - Involved agencies would be invited to attend the pre-construction conference held with the contractor that is to do the work. The required involvement of USFWS, if the project is on refuge land, will be laid out in the Special Use Permit.

B. Public Involvement - The minimum level of public review in the planning process is given below. An increased level of public involvement may be required for the larger, more complex projects.

1. Initial - Public concerns would first be brought to the attention of the District through DNR and USFWS personnel. In instances where a citizen has certain valuable knowledge of the study area, that person may be contacted directly for information. The local entities most affected by a project as well as interested individuals should be identified, if possible.

2. PAR review - During the interagency review of the draft PAR, a public informational meeting may be held, depending on the complexity and scope of the project. This meeting would emphasize two-way communication in which local knowledge of the area and public concerns would be solicited on the one hand and agency thought (as reflected in the draft PAR) would be expressed on the other. Thirty days prior to this meeting, a public notice should be issued. Two weeks before the meeting is to be held, the District public affairs office would put out a news release announcing the meeting. The Minnesota-Wisconsin Boundary Area Commission (MWBAC) would be informed of all meetings as the public notice is sent out.

3. DPR review - Local units of government, organizations, and private citizens identified as having an interest in the project would be provided the opportunity to review the draft DPR. A second informational meeting may be held after the report has been sent out for public review if input received at the first public meeting and from other sources indicates holding the meeting would be desirable. Public notification for this meeting should follow the same protocol as given for the first public meeting.