



Red River Watershed Management Board

FUNDING PROCEDURES FOR FLOOD DAMAGE REDUCTION PROJECTS AND RELATED PROGRAMS

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INTRODUCTION

The purpose of this section is to establish the criteria and procedures for the funding of flood damage reduction projects and related programs. This section may be reviewed by the Board and amended as needed. This section is divided into three sub-sections.

SUB-SECTION I

This sub-section is a listing of general criteria that will be adhered to by the member Watershed Districts in developing projects and programs to be considered for financial assistance by the RRWMB.

SUB-SECTION II

This sub-section of the section is a listing of technical criteria which will be considered by the member Watershed Districts in order to provide adequate technical information to the RRWMB to aid in the proper evaluation of a project or program. The included items are not intended to be all-inclusive in nature, and each project or program will require more or less information depending on the characteristics of the proposal. The RRWMB shall consider information available from all governmental agencies in order to minimize duplication of efforts in the development of initiatives.

SUB-SECTION III

This sub-section of the section is a recommended procedure of project and program processing in order to keep planning and design to a minimum until the feasibility of an initiative is demonstrated.

The RRWMB will review each project and program for the sole purpose of determining the level of financial assistance to be provided. It is not the intention of the RRWMB to assume any reviewing authority for design or other project and program features, therefore, such reviewing authority remains entrusted to other governmental agencies in accordance with existing laws and/or regulations.

SUB-SECTION I: GENERAL CRITERIA

- A. The proposed flood damage reduction project or program must function within the Red River drainage basin.
- B. The proposed flood damage reduction project or program shall have been recognized in the watershed district's water management plan as a component of its approved initiatives.
- C. The following is a listing of flood damage reduction projects and programs that may be eligible for funding:
 - 1. Water quality and hydrologic studies.
 - 2. Stream gaging stations.
 - 3. Watershed based planning and modeling initiatives.
 - 4. Wet dams or impoundments.
 - 5. Dry dams.
 - 6. On-stream dams or impoundments.
 - 7. Off-stream dams or impoundments.
 - 8. Wetland restorations/creations that increase temporary storage.
 - 9. Wetland restorations/creations that reduce flood volumes.
 - 10. Ring dikes.
 - 11. Set back levees that increase floodplain storage.
 - 12. Culvert sizing to regulate downstream flow rates.
 - 13. Gating drainage ditches.
 - 14. Flood water storage easements.
 - 15. Non-structural flood damage reduction initiatives.
 - 16. Overtopping levees that reserve floodplain storage.
 - 17. Natural resource enhancements.
- D. Projects or programs that are partially funded by other governmental agencies will be considered for funding.
- E. Projects or programs will not be considered for funding if the proposed initiative is eligible for total federal or state funding. Projects or programs of this nature may be considered for funding if the time requirement for governmental funding is to be extended.
- F. Applicants must have the ability to operate and maintain the proposed project when constructed.

- G. A proposed project must meet the engineering and technical criteria as established by this manual. Where applicable, the proposed project must also meet criteria established by state and federal governmental permitting agencies.
- H. The proposed project must have received the required permits from federal, state and local governmental units prior to construction.
- I. Programs that are brought before the RRWMB for potential funding consideration shall be directly related to gaining information for the development of flood damage reduction projects, including natural resource enhancements approved through the Mediation Project Team process. Those initiatives not directly related will not be considered.

SUB-SECTION II: TECHNICAL CRITERIA FOR DAMS AND IMPOUNDMENTS

- A. Engineering Design: The structural and hydraulic design of all dams must be performed by a registered professional engineer of the State of Minnesota experienced in the design and construction of dams or by a qualified engineer of the Natural Resources Conservation Service (NRCS) or the U.S. Army Corps of Engineers.
- B. Hydrologic and Hydraulic Adequacy: Proposed new dams must be adequate in relation to Minnesota Dam Safety rules. Impoundments not subject to Dam Safety Rules must be adequate in relation to the following factors:
 - 1. The estimation of the magnitude of the design flood will include the anticipated effects of development on the tributary watershed area expected over the project life; likewise, the selection of design flows will include an assessment of the risks involved based upon anticipated development in the flood plain below the proposed dam over the life of the proposed project;
 - 2. A mechanism will be provided for drawing down the water surface if necessary to facilitate dam repairs and maintenance work within the reservoir;
 - 3. All portions of the dam and any associated dikes or other facilities not designed for overtopping will be provided with appropriate freeboard above the design water surface elevation in anticipation of wind and wave conditions and to provide a safety factor;

4. Earthen emergency spillways and the upstream and downstream faces of earthen dams will be adequately riprapped, sodded, or seeded to prevent erosion thereof;
5. The storage pool of the impoundment will provide adequate space to store the sediment yield from the upstream watershed over the project life;
6. An adequate stilling basin or other means of controlling downstream erosion is provided for;
7. A stage-discharge curve is developed for the watercourse immediately below the dam to ascertain whether or not the dam capacity is reduced by backwater effects; and
8. Information as to the extent, configuration, and capacity of the reservoir at various stages must be provided.

C. Structural Stability: The structural design of the dam must include the following consideration:

1. Gravity forces; Hydrostatic pressure; Uplift forces; Overturning moment; Resistance to sliding; Ice pressures; Earthquake forces; Slope stability including consolidation and pore pressures; Seepage collection or prevention; Foundation conditions including appropriate borings and determination of the strength of foundation materials; Specifications for materials of construction and their placement or installation; Adequate construction inspection to assure conformance with design assumptions; and Adequacy of the cofferdam, if any.

SUB-SECTION III: PROCEDURES FOR REVIEW AND APPROVAL

A. Flood Damage Reduction Projects

The procedure for submitting flood damage reduction projects for consideration for funding is a three-step process, consisting of an initial submittal (STEP I), an Engineer's Report (STEP II), and the final submittal (STEP III). Each step in the submittal process is described below followed by an explanation of possible actions which the RRWMB may take after each submittal. At the request of any Member, the Board may vote by ballot on the course of action. No step submittal can be acted on at the same meeting at which the request was submitted, except when the Board, by a resolution duly passed, has authorized an exception to the rule. The president shall turn the meeting over to

the vice-president when presenting proposals for his/her own District.

In order for the Board to make fair and sound decisions on the funding of projects, all initiatives need to be evaluated in a uniform manner. The projects proposed for funding shall be evaluated based on the following general criteria and other considerations which may not be known at the time of accepting this document:

1. A description of the area on which flood damages will be reduced.
2. The level of protection anticipated in commonly accepted engineering terms.
3. The total cost for providing the flood damage reduction.
4. The anticipated (designed) effect on downstream areas within the watershed.
5. The anticipated (designed) effect on specific downstream points on the Red River.
6. The anticipated social and environmental impacts.
7. Technical criteria published in Section 4, Funding Procedures, Sub-Section II: Technical Criteria for Dams and Impoundments.
8. Environmental enhancement initiatives may be considered for funding in accordance with the Mediation Agreement.
9. The recommendation for funding by the Red River Basin Flood Damage Reduction Work Group will be reviewed and considered in all evaluations and decisions.
10. Must have a completed evaluation from the Technical Advisory Committee (TAC) at each step application.

B. Programs, Studies, Testing, Monitoring, etc.

A presentation requesting funding assistance for programs from the sponsoring agency, member watershed district, or organization must be made in writing, supported by an oral presentation, and at a regular monthly meeting of the RRWMB. The request shall describe how the intended action will enhance the capability of RRWMB member districts in carrying out their duties and functions. The presentation shall also contain a description of the duration of the proposed activity and the total cost through completion. Cooperating participants in the funding of the proposed activity shall be identified with verification that funding will be available through completion, including publishing a report(s) of the action or initiative.

Action on the request(s) may be taken no sooner than the next regular monthly meeting.

The procedures for submitting programs (studies, testing, monitoring, etc.) for consideration for funding shall be as follows:

1. Shall be related to obtaining background information needed for flood damage reduction project development or natural resource enhancement initiatives approved through the Mediation Project Team process. Those initiatives not directly related will not be considered.
2. The results shall be useable/functional for the majority of the member districts.
3. May be of an experimental/pioneering nature, but generally applicable in the Basin.
4. May be for any one of the purposes of a watershed district if applicable in all.
5. May be for district plans related to flood damage reduction initiatives.
6. Shall be on a cost-sharing basis with the primary agency involved.
7. Shall be recommended by the TAC as beneficial to the RRWMB.

C. General

Variations from these requirements may be allowed for all proposals but only when receiving six affirmative votes of the Board. The Board shall make the decision on whether initiative proposals are programs or projects for the purposes of funding.

Programs submitted for funding participation are to be made directly to the Board at a regular monthly meeting (not to be submitted in the step process).

STEP I – INITIAL SUBMITTAL

Step I applications will be accepted at regular monthly meetings of the RRWMB. A proposed project site must be inspected (toured) by the Board before a decision on approval is acted upon. All Step I applications shall progress to a Step II within three years, or the Step I approval will be rescinded unless extended upon request. All carry-over proposals will be re-evaluated for consideration at the request of the sponsoring District or by action of the Board.

Information presented at this time will be obtained from maps or from other available sources and will be the result of an engineering investigation. The following minimal essential information will be submitted in the form of a concept report at the time of initial submittal in accordance with Minnesota Statutes 103D.601, Subd. 3 Preliminary report and information.

1. A general description of the project for which financial assistance is requested. This will include the type of structure(s) proposed and project site location.
2. The main and secondary function of the proposed project. For example: The primary

function of a dam with associated environmental enhancement or other features.

3. A brief description of the hydraulic features and proposed operation of the project.
4. A brief description of the landscape where the project is proposed to be built and a primary evaluation of the potential environmental impacts.
5. Hydraulic Data.
 - a) A description of the proposed outlet works.
 - b) Elevation vs. Discharge curve (if outlet has gated control, provide curves with the gates open and with the gates closed.)
6. Hydrologic Data.
 - a) Natural stream or ditch system involved.
 - b) Drainage area.
 - c) Design discharges.
 - d) Known peak discharges and stages.
 - e) Proposed flood storage volumes of proposed project for:
 1. Gated storage
 2. Drawdown storage
 3. Non-gated storage (below emergency spillway elevation)
 - f) Elevation vs. storage curve.
 - g) "STAR" value calculations (Section 5).
7. A brief description of soil types in the watershed area and, in particular, the project site.
8. A description of land ownership and land availability in the project area. Approximate land values and land utilization in impoundment areas should also be discussed.
9. A description of the location and size of the area protected by the proposed project.
10. An approximate cost estimate for the proposed project as well as the proposed method of financing should be discussed.
11. Discussion of existing flood damage this project is expected to reduce or address.
12. Discuss how this project will function in addressing goals and objectives of the RRWMB.
13. Discuss recommendations of the mediation project teams including any natural resource enhancement components of the proposed project.

14. A completed "Red River Watershed Management Board Evaluation Worksheet for Flood Damage Reduction Projects" located in Section 9 of the Governing Documents.

Upon review of the initial submittal by the applicant, the Red River Watershed Management Board may take one of the following courses of action:

1. Refer the proposed project back to the applicant for implementation of Step II – Engineer's Report. This is the most positive action that may occur. Funding may be made available to move the project through Step II if the applicant can show a hardship case and the project has a great potential for basin-wide benefits beyond the local District. Step I applications shall progress to a Step II within three years, or the Step I approval will be rescinded unless extended upon request.
2. Refer the proposed project back to the applicant for reconsideration at a later date.
3. The Board may simply reject the project completely with no funding eligibility. The Board will outline reasons for declaring a project ineligible for funding.

STEP II – ENGINEER'S REPORT

Step II submittals will be accepted at the regular monthly meeting to be acted upon no sooner than at the next regular RRWMB meeting. All Step II applications shall progress to a Step III within five years, or the Step II approval will be rescinded unless extended upon request. Information submitted at this time will be based on data obtained by field survey, field soil investigations, detailed office analysis, and from any other available sources. Use of engineering data collected by other agencies should be used to the maximum extent possible. It is intended that the applicant initially submit this report to the Department of Natural Resources and the Board of Water & Soil Resources. Comments from these agencies will be submitted along with the Engineer's Report as part of the Step II submittal.

The Engineer's Report, submitted by the applicant, will contain all of the applicable information required in Section 4, Funding Procedures, Sub-Section II – Technical Criteria for Dams and Impoundments. The report will also address all of the information contained in the initial submittal including an updated STAR value calculation and Project Evaluation Worksheet. The information must be refined and conclusive in reflecting added data collected from field soil investigations, field surveys, etc. The results of soils investigations, as well as cross-sections upstream and downstream from the proposed project, will be furnished in the report. An important item to be included in the report is a detailed cost estimate and a proposed plan for financing the project. Recommendations of the Red

River Basin Flood Damage Reduction Work Group shall be evaluated and considered.

Upon review of the Step II submittal, the Red River Watershed Management Board may take one of the following courses of action:

1. Commit funds conditionally to support the project. The extent of this commitment will be explicitly stated by the Board as a percent of project cost up to a maximum amount. Additional information may be requested as a result of the review of the Engineer's Report by the Red River Watershed Management Board, Department of Natural Resources, Board of Water & Soil Resources, or any other agency. The amount of funds committed in support of a project will be determined by the Red River Watershed Management Board after all other sources of funding have been evaluated.
2. Refer the proposed project back to the applicant for reconsideration at a later date. The Board will provide justification for taking this action.
3. The Board may reject the project completely. The Board will provide justification for taking this action.

STEP III – FINAL SUBMITTAL

Step III submittals may be accepted and acted upon no sooner than at the next regular meeting after receiving Step II approval. Information submitted at this stage will include plans, specifications, a summary report identifying changes in project design and projected costs since Step II, an updated STAR Value calculation, and an updated Project Evaluation Worksheet. Information submitted at this time will be all of the information contained in the Engineer's Report. Evidence of all permits by other agencies must also be submitted. The project shall have the same function, performance, and purpose as reported and approved in Step II.

Upon review of the information submitted under Step III, the Red River Watershed Management Board may take one of the following actions:

1. The Board may obligate the funds committed to the project under Step II, and establish the extent of financial participation by the Board. The obligation of funds may be conditioned to the submittal of any further information determined necessary by the Board.

2. The Board may elect not to participate in the funding of the proposed project. The Board will provide justification for taking this action.

Payments

1. A copy of the contract awarded and/or verification of expenses incurred for the project shall be transmitted to the Board for authorization before any payments can be made.
2. A final cost accounting shall be required upon completion of the Project. This cost accounting shall include a certification of completed construction signed by the project engineer as well as a certification of expenses incurred signed by the District secretary.
3. Funding of projects shall be based on a percentage agreed upon in the Step II application. No additional fees or charges above actual project costs will be allowed. The Board shall not be liable for cost overruns above the maximum dollar commitment under Step III approval. Resubmittal of the project for Step III approval will be necessary if additional funds are needed to cover cost overruns.

Project Loans

The Board may provide a loan or advance of funding for a project that has received Step III approval, or prior to Step III approval in cases where the applicant can show a hardship case or urgent need, a preliminary engineering report has been prepared and the project is in conformity with the District's watershed management plan, the project has great potential for basin-wide benefits beyond the local District, and the loan request receives a two-thirds majority vote of the Board. The terms of all such loans will be documented in a loan agreement, promissory note, or other appropriate legal documentation. (Adopted 12-19-06)

Maintenance

Previously funded projects needing major repairs shall receive consideration for funding over new project proposals after the local project, local district, and/or any other sources of funding have been evaluated.