



**US Army Corps  
of Engineers**  
Rock Island District

# DES MOINES AND RACCOON RIVERS FEASIBILITY STUDY NEWSLETTER



March 2004

## STUDY BACKGROUND

The Des Moines and Raccoon Rivers Feasibility Study, conducted by a partnership of the City of Des Moines and the Rock Island District Corps of Engineers, was initiated in September 1999. The purpose of the study is to identify opportunities for flood damage reduction within the City of Des Moines.

This fourth study newsletter reviews the feasibility study process and provides an update on the study progress.

## SIX-STEP STUDY PROCESS

The U.S. Army Corps of Engineers follows a six-step planning process. This process is generally followed by all federal water resources agencies.

The six steps are:

### STEP 1 - IDENTIFY PROBLEMS AND OPPORTUNITIES

- What are the water related problems and needs of the study area?
- Are there any opportunities for improvement of water resources?

### STEP 2 - INVENTORY AND FORECAST CONDITIONS

- Develop an inventory and forecast of critical resources (physical, demographic, economic, social, etc.) relevant to the problems and opportunities.

### STEP 3 - FORMULATE ALTERNATIVE PLANS

- The first plan considered is No Action.
- Identify specific ways to achieve the planning objectives to address and reduce the problems identified and realize the opportunities.
- An alternative plan consists of a system of structural and/or nonstructural measures, strategies, or programs formulated to meet, fully or partially, the identified study planning objectives.

### STEP 4 - EVALUATE ALTERNATIVE PLANS

- The Corps' evaluation is a comparison of the proposed improvements vs. no improvements for each alternative.

### STEP 5 - COMPARE ALTERNATIVE PLANS

- Alternative plans (including the No Action plan) are compared against each other, with emphasis on the outputs and effects that will have the most influence in the decision-making process.
- Beneficial and adverse effects of each plan must be compared.

### STEP 6 - SELECT A PLAN

- The recommended plan must be shown to be preferable to taking no action (if no action is not recommended) or to implementing any of the other alternatives considered during the planning process.
- The culmination of the planning process is the selection of the recommended plan or the decision to take no action.

### AT WHAT POINT ARE WE IN THE STUDY?

The six steps in a water resources development study are shown below. The Des Moines and Raccoon Rivers Feasibility Study is in the fifth phase.

Step 1: Identify Problems

Step 2: Inventory and Forecast

Step 3: Formulate Alternative Plans

Step 4: Evaluate Alternative Plans

Step 5: Compare Alternative Plans



Step 6: Select the Recommended Plan

## STUDY UPDATE

The Corps of Engineers and City of Des Moines study team has studied several areas or reaches throughout Des Moines and has evaluated draft alternatives for flood damage reduction to determine if any of the alternatives qualify for federal cost sharing. To do so, a project must be environmentally acceptable and the benefits must exceed the costs of the project.

The reaches that have been studied are:

- Reach 1 – Birdland Park Levee
- Reach 2 – Central Place Levee
- Reaches 3, 4, & 5 – Downtown Levee System
- Reach 6 – Raccoon River (Valley Drive area)
- Reach 7 – Des Moines Water Works Levee
- Reach 8 – Des Moines-West Des Moines Levee
- Reach 9 – Walnut Creek at Grand Avenue
- Reach 10 – Four Mile Creek
- Reach 11 - Leetown Creek South of University Avenue

The status of each of the areas, e.g., whether or not they are being considered for further study, is described below.

## STUDY STATUS

The study team is completing comparisons of the alternatives and is working on developing a recommended plan. New flood profiles for the Des Moines River, the Raccoon River, Walnut Creek, Four Mile Creek, and Leetown Creek have been completed and floodplain maps of these areas have been provided to the City. The December 2002 newsletter included a description of each of the 11 reaches listed above. Following is a summary of the activities.

**Reach 1 – Birdland Park Levee** – The primary alternatives under consideration involve reconstruction of the existing levee from Riverview Park to Saylor Road to provide improved flood protection. The study team has not yet determined if a federal project is justified.

**Reach 2 – Central Place Levee** – The primary alternatives under consideration involve reconstruction of the existing levee to provide improved flood protection from Second Avenue to I-235. The study team has determined that a federal project to improve the levee system is likely justified.

**Reaches 3, 4, and 5 – Downtown Levee System** – The primary alternatives under consideration involve improving and reconstructing existing levee closures on the levees along the Des Moines and Raccoon Rivers to provide more reliable flood protection. The downtown levees are primarily located south of I-235 and east of Fleur Drive, downstream almost to the Des Moines Wastewater Treatment Facility.

Closures are locations where roads, railroads, pipes, and utilities cross through the levee. These closures must be manually closed during a flood event (using gates, valves, sandbags, or other materials) to prevent flooding. Taking care of these closures during a flood event requires a considerable amount of manpower in a short period of time and can increase the flood risk to a community. The study team has not yet determined if a federal project to improve the closures is justified.

**Reach 6 – Raccoon River (Valley Drive area)** – No further improvements to the existing federal levee in this area appear to be justified.

**Reach 7 – Des Moines Water Works Levee** – No further improvements to the existing levee around the water works appear to be justified.

**Reach 8 – Des Moines–West Des Moines Levee** – No further improvements to the existing federal levee in this area appear to be justified.

**Reach 9 – Walnut Creek at Grand Avenue** – No federal project appears to be justified to protect the property on the east side of Walnut Creek near Grand Avenue.

**Reach 10 – Four Mile Creek** – No federal project to construct structures such as dams or levees appears to be justified to protect property in the Four Mile Creek floodplain. The study team has not yet determined if any nonstructural alternatives, such as relocating homes, is justified.

**Reach 11 – Leetown Creek South of University Avenue** – No federal project appears to be justified to protect property in this area.

## PUBLIC INPUT RECEIVED AT OPEN HOUSE

On January 14, 2003, an open house for the Des Moines and Raccoon Rivers Feasibility Study was held at the Des Moines Botanical Center. All persons who had an interest in the study were invited to attend. The purpose of the open house was to provide information on the study status and the alternatives being evaluated for flood damage reduction and to gather the public's input on these alternatives. The study team is considering public input as they continue to look at the draft alternatives. Comments from the public will also will be part of the Environmental Assessment (as part of the National Environmental Policy Act (NEPA) process).

Two identical open house sessions were held – one in the afternoon and one in the evening. Representatives from the City of Des Moines and from the Corps of Engineers met with members of the public on a one-to-one basis to discuss information on the alternatives. In addition, study displays were available for viewing.

Open house attendees were asked to fill out a comment sheet. Overall, comments were very favorable regarding the open house format and displays. Within the environmental arena, study area residents recognized the importance and challenge of balancing the protection of people and property with the protection of the ecosystem. The major concerns centered around impacts to wetlands and farmland, and reducing rainwater runoff.

Other issues identified include levee improvements – especially in the Central Place and Birdland Park areas, limiting floodplain development, potential floodwater damage impacts downstream of Des Moines, protection of the downtown business district, and the handling of interior drainage problems.

Impacts and damages resulting from the 1993 flood event in Des Moines were a major impetus for the initiation of this study. When asked if the study was addressing those impacts and concerns, nearly everyone who responded agreed that the study appears to have identified areas in need of improvement, and the final outcome will determine if those needs are addressed.

### **STUDY SCHEDULE**

Work in 2003 was delayed by eight months due to a shortage of federal funds. The current study schedule shows the Draft Des Moines and Raccoon Rivers Feasibility Report scheduled to be completed and available for public review in the fall of 2004.

The next significant opportunity for public input will be in the fall 2004 timeframe, when a public meeting will be held during the public review phase of the study.

### **STUDY INFORMATION AVAILABLE ON THE INTERNET**

The website for the Des Moines and Raccoon Rivers Feasibility Study includes study information, study

documents, study team points of contact, and related websites.

The PowerPoint presentation shown at the January 2003 open house is provided on the website. In addition, the draft report will be available on the website during the public review period, currently scheduled for fall 2004.

The website is located at the following address: <http://www.mvr.usace.army.mil/DesMoinesFP/>.

### **PUBLIC INVOLVEMENT COMMENTS/QUESTIONS**

**We welcome your input.** If you have comments and/or questions regarding this study, please contact Mr. Dennis Hamilton, Project Manager, by telephone at 309/794-5634, fax at 309/794-5710, or e-mail at [dennis.w.hamilton@usace.army.mil](mailto:dennis.w.hamilton@usace.army.mil).

If you prefer, you may write to Mr. Hamilton at the following address:

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The point of contact for the City of Des Moines is Mr. Scott Ralston, Storm Water Engineer. Mr. Ralston may be reached at:

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If you are aware of someone who may wish be added to the study's mailing list to receive this newsletter, previous newsletters, and/or future study mailings, please ask him/her to contact Mr. Ralston or Ms. Sue Simmons, Rock Island District, Corps of Engineers. Ms. Simmons may be contacted at the Rock Island District address listed above, by telephone at 309/794-5573, or by e-mail at [suzanne.r.simmons@usace.army.mil](mailto:suzanne.r.simmons@usace.army.mil).