

Section 1

Introduction and Purpose

1.1 Introduction

The City of Lincoln, Nebraska (City) and the Lower Platte South Natural Resources District (NRD) are in the process of developing a *Comprehensive Watershed Management Plan for the City of Lincoln* and its future growth areas. This comprehensive watershed plan is being developed basin by basin, through the completion of watershed master plans for individual basins. Watershed master plans are used as planning tools and serve as a guide in the preparation of future capital improvement projects (CIPs). The City and NRD have previously adopted watershed master plans for the Beal Slough, Southeast Upper Salt Creek, and Stevens Creek basins (Figure 1-2 on the following page) and are now working on master plans for Cardwell Branch and Little Salt Creek watersheds.

To continue with the planning process, the City and NRD sponsored the Deadmans Run Watershed Master Plan (Master Plan) study. The primary goal of the study was to develop planning tools and comprehensive improvement projects that reduce the potential for street and building flooding, address existing erosion problems, and improve water quality. A diverse public participation program was implemented to gather input from the public and address citizen concerns, including the establishment of an 18-member Citizens Advisory Committee.

The Deadmans Run watershed study area is approximately 9 square miles located in the northeast portion of the City, as indicated on Figure 1-1. Deadmans Run, a right-bank tributary of Salt Creek, begins in the eastern part of the City. The Deadmans Run main channel flows northwest, ultimately draining into Salt Creek just downstream of Cornhusker Highway. The entire watershed is located within Lincoln's city limits and includes residential neighborhoods, the University of Nebraska East Campus, and commercial areas such as Westfield Shopping Center.

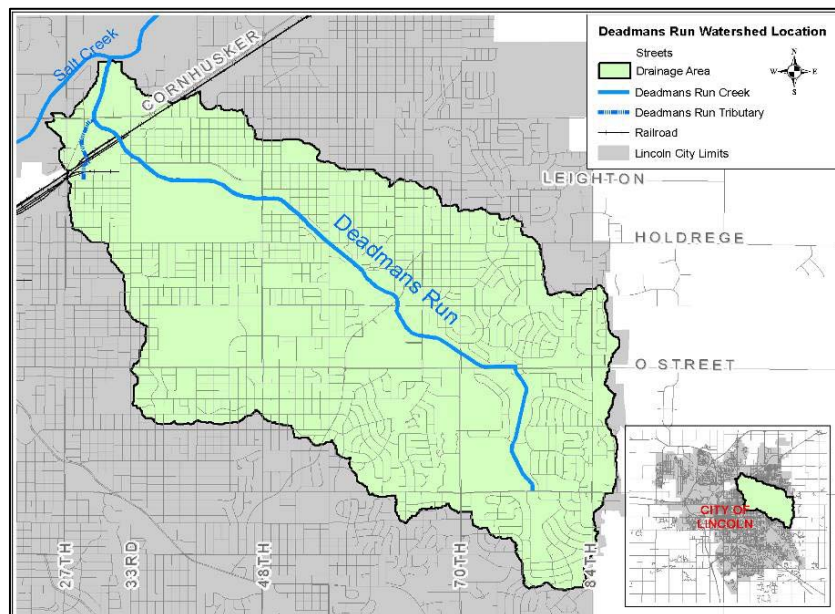


Figure 1-1
Deadmans Run Watershed Area Map

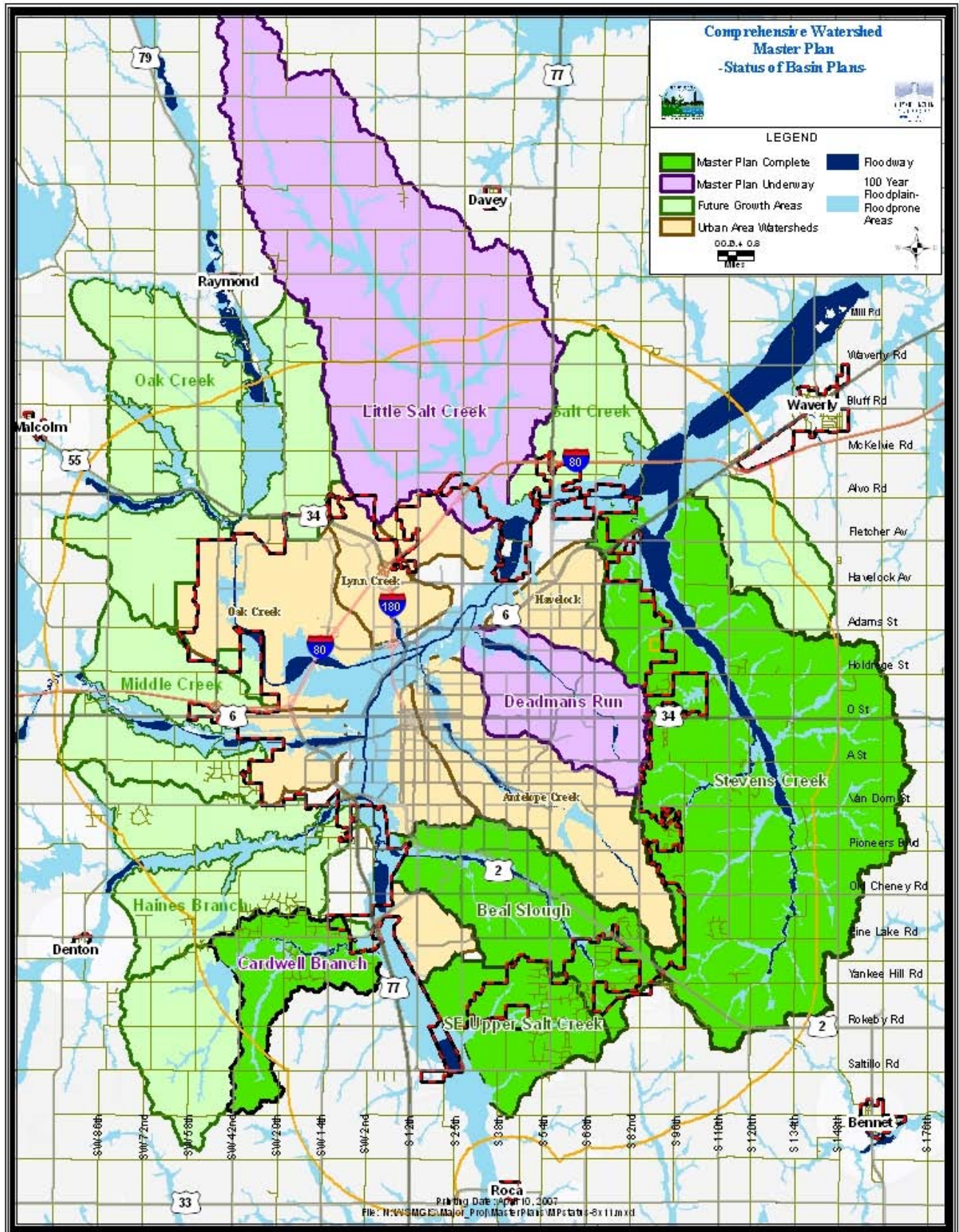


Figure 1-2
City of Lincoln Comprehensive Watershed Management Plan

Like many watersheds throughout the country, the Deadmans Run watershed is fully urbanized and contains a limited amount of open green space. As a result, the process of developing solutions to mitigate flooding becomes very challenging because of the physical limitations that significantly reduce the number of suitable locations for flood control projects. However, the improvement alternatives analysis used for this study focused on utilizing existing open space where available with the goal of minimizing stakeholder disruption.

The project team was lead by the City and NRD. The City and NRD retained the consultant team of Camp Dresser & McKee Inc. (CDM), in association with Heartland Center for Leadership Development (HC), Mead & Hunt (M&H), Applied Ecological Services (AES), and Kirkham Michael Consulting Engineers (KM).

1.2 Goals and Objectives

The goal of the Master Plan was to develop planning tools and improvement projects to address flood management, water quality, and existing erosion problems. While developing the improvement projects, the project team incorporated community input, developed cost-effective improvement solutions, integrated recreation and water quality components, protected infrastructure, minimized stakeholder impacts, and avoided any recommendations that would cause adverse impacts elsewhere in the watershed. The study included a wide range of services organized into the following major components.

Data Collection

- Watershed inventory to collect existing information applicable to the watershed
- Field survey to collect data describing the physical aspects of the drainage system

Hydrology and Hydraulics

- Computer models simulating the hydrologic and hydraulic aspects of the watershed, using subareas no larger than 150 acres at the upper reaches of the drainage system. The models included the U. S. Army Corps of Engineer's (USACE) Hydrologic Engineering Center's Hydrologic Modeling System program (HEC-HMS) and Hydrologic Engineering Center's River Analysis System program (HEC-RAS).
- Floodplain boundaries using HEC-GeoRAS that represent existing land use conditions. In addition, floodway boundaries were developed.
- Federal Emergency Management Agency (FEMA) submittal documents necessary for Digital Flood Insurance Rate Map (DFIRM) application.

Water Quality

- Reviewing previous water quality sampling performed by the University of Nebraska, Nebraska Department of Environmental Quality (NDEQ), and the City of Lincoln.
- Evaluating the Environmental Protection Agency (EPA) stormwater standards.
- Water quality assessment for the watershed including collecting and testing stormwater samples at two locations during two separate storm events.

Stream Stability

- Reviewing available aerial photographs, determination of meander geometry, initial analysis of allowable shear, and preparation of data collection reduction and analysis methodology.

- Geomorphic field investigation to document the condition of the stream.
- Geomorphic analysis to diagnose the stability of the stream.

Capital Improvement Projects

- Conceptual improvement projects to alleviate flooding and stream instability problems.
- Conceptual improvement projects to improve water quality, including structural best management practices (BMPs).

Public Participation

- Open houses and information sessions to disseminate information and solicit feedback from the public.
- Citizen advisory committee meetings to receive input from various interest groups and elected officials.
- Newsletters mailed to over 4,200 individual residents and study website designed to inform the public about the study and to post preliminary results.

Geographic Information System Services

- GIS products designed to enhance the usability of key study products.

1.3 Public Participation Process

Citizens and stakeholders were offered a variety of ways to provide input to the study and to contribute to the development of alternative concepts and solutions. Each public involvement activity provided the project team with ideas for presenting and refining its recommendation. A summary of the various components of the public participation process follows.

1.3.1 Open House Events



Information stations were used to ask questions

Three open house events were held during the study to present preliminary results and solicit input from the public. The events were advertised by sending postcards, displaying electronic digital billboards at several locations, announcements in the Sunday issue of the Lincoln Journal Star, broadcasting on the City's TV channel, and advertising on the City's watershed website. All three events followed the same general format consisting of formal presentations to discuss overall goals and preliminary results of the study.

Following the formal presentations, participants were encouraged to visit information stations and to discuss their concerns with representatives from the project team. The first event was held at the Riley Elementary School, the second at Culler Middle School, and the third event at the Warren United Methodist Church. A summary of each open house event is provided below.

Approximately 107 citizens participated in the first open house held on June 29, 2006. The first open house was designed to discuss the overall goals and objectives of the study, timeline, as well as the public participation process to be conducted throughout the study effort. Following the formal presentations, participants were encouraged to visit four information stations set up around the room that provided watershed-specific information and the history of the watershed.

A total of 67 people attended the second open house held on November 16, 2006. The open house provided updated floodplain information that would subsequently be submitted to FEMA. In addition, the project team presented potential approaches to solving flooding issues in the watershed. Following the formal presentations, participants were encouraged to visit two information stations with hardboard maps that contained the updated floodplain information, as well as a kiosk with digital GIS information that allowed zooming into a specific area.

Nearly 50 people attended the third open house held on October 24, 2007. The third open house focused on presenting the Master Plan recommendations, including the CIPs that addressed flooding problems, stream instability, and water quality issues. The draft Executive Summary covering the various components of the study was available as a handout for all participants. Following the formal presentations, participants were encouraged to visit information stations covering the major Master Plan elements. In addition, participants were encouraged to fill out comment cards regarding the Master Plan recommendations. A copy of the submitted comment cards is provided in Appendix B of this report.

1.3.2 Citizen Advisory Committee

An important part of the study was the participation and review process of the Citizen Advisory Committee. At the first open house event, a nomination form was made available for those citizens interested in serving on the committee. The form was also made available on the study website.

Balancing interests, perspectives, and geography resulted in an 18-member group with City and NRD representatives. Roughly one-half of the group represented homeowners from the watershed, one-third represented the business community, and the remainder showed interests in environmental issues. The committee members included Mark Arter, Phil Bohl, Pam Brunke, Jennifer Dam, Joan Darling, Doug Emery, Scott Ernstmeyer, Luann Finke, Marleen Gordon, Russell Irwin, Russell Miller, Patte Newman, George Olson, Darryl Pederson, Barbara Standley, Dan Steinkruger, Richard Sutton, Erica Williams, and Ginny Wright. During the first meeting, the mission statement was provided to the group and is included below:

The Deadmans Run Advisory Committee represents neighborhood and community interests, and serves as a resource for the project team in the development of long-term planning tools and improvement projects to address flooding, stream stability, and stormwater quality in the Deadmans Run watershed. The Committee will serve on behalf of the citizens who live or work in the watershed, or are in any way impacted by the findings of this study, now and in the future. In an effort to build

understanding, members are expected to share information among their constituencies and to act as a liaison between public interest and public policy.

Committee members are charged with the careful review of existing data and new findings as study results are compiled by the project team. The Committee will provide input regarding recommendations forwarded by the project team. They will listen, ask questions, raise issues, and openly share information among one another, the public they represent, and the project team. As representatives of the community, they are asked to make every attempt to fully participate on a regular basis.

The project team held a series of four committee meetings that began in November 2006 and ended in August 2007. The meetings were scheduled before other public events to disseminate the information to the committee before presenting it to the broader public. This allowed committee members to act as a liaison between the project team and the community they represented. Presentations and handouts were provided to the group that illustrated study findings, methodologies, and recommendations. A copy of the presentations, handouts, meeting minutes, and attendance records are provided in Appendix B.

1.3.3 Information Sessions

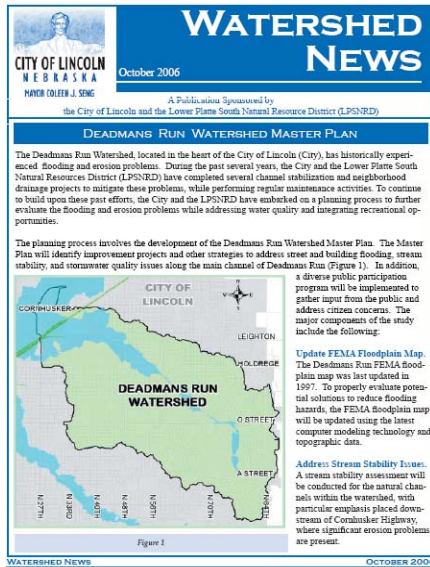
Ten separate information sessions were conducted to discuss special issues and impacts regarding potential capital improvement projects. The first eight sessions were held on April 16 and 17, 2007, with the goal of presenting specific CIP information to property owners that may be impacted by the projects. Each of the eight sessions was organized based on the location and type of potential CIPs. All eight meetings were held at the NRD building located at 3125 Portia Street in Lincoln. The meetings were conducted and facilitated by members of the project team with the goal of gathering feedback, answering questions, and addressing concerns. The feedback was then integrated into final Master Plan recommendations. The feedback summaries are provided in Appendix B of this report.

Two additional meetings were scheduled following the April information sessions to discuss CIP Project 5 (Section 8.4.2) and to gather input and concerns from the landowners including Lincoln Lutheran Schools and Chateau Properties, LLC. The meetings were of particular importance because of the necessity of the project and its impact on the implementation of other projects in the watershed. Members of the project team met with Lincoln Lutheran Middle/High School representatives on May 11, 2007. The meeting was conducted as a field visit to further understand concerns of the proposed dry detention facility within the school's existing open space. As a follow up to the field visit, additional information was provided, including examples of similar existing dry stormwater facilities throughout the region. In addition, a meeting with the Chateau Properties, LLC, who were unable to attend the April 2007 information session, was held on June 21, 2007, at the Chateau Apartments Leasing Office, 1025 N. 63rd Street.

The last information meeting was held on July 12, 2007, to further discuss the study's FEMA floodplain update process and results. Invitations were sent specifically to landowners whose properties were included in the study's updated floodplain but were not previously in the current effective FEMA floodplain. Similar to the second open house, a formal presentation provided an overview of the study while two information stations

provided hardboards with the floodplain results. In addition, a third station allowed zooming into a specific area using digital GIS information. The stations allowed property owners to determine if any structures on their property were included in the updated floodplain and to discuss next steps with the project team.

1.3.4 Newsletter and Website

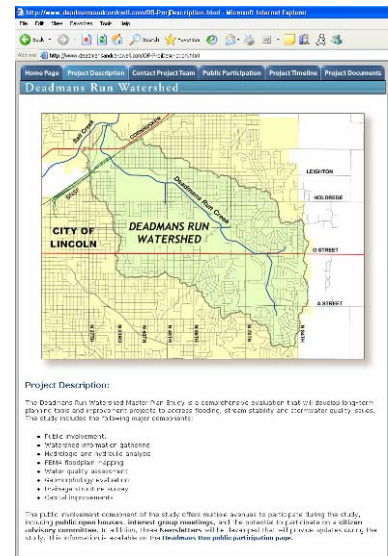


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lincoln.ne.gov, keyword “watershed.” The website contains general background information, preliminary study results, and handout materials that were distributed at the open houses. The website was regularly updated throughout the study process and was used to advertise upcoming events.

Three newsletters (*Watershed News*) and a project website were used to disseminate information about the study process and Master Plan recommendations. Each newsletter edition was mailed to over 1,400 people and provided an effective means of informing the public about key aspects of the project. See Appendix B for a copy of each newsletter.

The project website was another mechanism used to inform the public about the progress of the study. The website can be accessed by going to the City of Lincoln’s website at



lincoln.ne.gov