Little Salt Creek Watershed Master Plan

Open House
February 24, 2009

This meeting is subject to the provisions of the Nebraska Open Meeting Act
Open House

• Second of two open houses.
• First open house was held on April 22, 2008.
  – Lincoln North Star High School

Open House Format

• Formal Presentation (15 minutes)
• Informal Stations Following Formal Presentation
  – Visit with Project Team Staff
  – Ask Specific Questions
Tonight's Agenda

- Introduction
- Purpose of Watershed Master Plan
- Study Goals and Objectives
- Information Stations

Lincoln Watershed Management/NRD Partnership

- Minimize Flood Damage
- Control Erosion & Sedimentation
- Preserve Watershed Resources
  - Water Quality
  - Stream Stability
  - Riparian Habitat
- Encourage Sustainable Growth

...Ensuring Quality of Life for Future Generations
Watershed Master Planning

- City/NRD Planning Effort
- Watershed Master Plans Completed
  - Beal Slough
  - SE Upper Salt Creek
  - Stevens Creek
  - Cardwell Branch
  - Deadmans Run
- Overall Goals
  - Unified Master Plan
  - Integrate Public Input

Little Salt Creek Watershed Master Plan

**Goals & Objectives**

**Goal** - Develop long-term planning tools and improvement projects to address water quality, flood management, and stream stability and provide guidance for sustainable urban growth in the watershed.

**Study Objectives**

- Maintain a Proactive Stakeholder and Public Involvement process
- Update Floodplain and Floodway Maps
- Identify Flooding, Erosion, and/or Water Quality Problems
- Consider Critical Habitat and Rare or Sensitive Environmental Resources
- Develop Guidelines and Recommendations for Future Development
- Identify Potential Funding Sources for Future Studies and/or Projects
Project Team

Team Leaders

Engineering Consulting Team

Other Agency Team Members
Lincoln & Lancaster County Planning Department

Little Salt Creek Watershed Master Plan
Major Study Components
Public Involvement

- Open Houses
- Newsletters
- Website
  - www.lincoln.ne.gov
  - Keyword “watershed”
- Citizens Advisory Committee (CAC)

Citizens Advisory Committee

- David Grimes
- Gary Hellerich
- Don Helmuth
- Chris Helzer
- Larry Hudkins
- Merle Jahde
- Susan Kuck
- Jack Nagel
- Harold Roper
- Gene Petersen
- David Potter
- Harold Roper
- Dave Sands
- John Schleich
- Vicky Wheeler
- Mark Whitehead
- Doug Emery
- Don Linscott
Watershed Inventory

- Collect, Compile and Evaluate Existing Watershed Data
- Geographic Information System Format (GIS)
- Study Data Collected in GIS Format

Floodplain Mapping

- Mapped in Early 1980s
- Develop Maps Using Latest Technology
  - Computer Models
  - GIS Format Output
Floodplain Mapping

- Floodprone Area Updated
- Floodway Delineated
- Adopt Floodprone Area and Floodway as Best Available Information

Stream Stability

- Geomorphic Data Collection
- Stream Characteristics
- Identify Potential Future Stream Characteristics
Stream Stability

Dominant Process

Five Dominant Processes
1. Dynamic Equilibrium
2. Incision
3. Widening
4. Plan Form Adjustment
5. Managed Swale and Pond

Natural Resources

- **Agriculture**
  - Cropland
  - Pasture
  - Native Prairie

- **Environmental**
  - Saline Wetlands
  - Saltwort
  - Tiger Beetle

- **Streams/Waterways**
Seep Elevation Survey

- 5 Survey Sites
- Data Collected
  - Seep elevation
  - Top of bank
  - Toe of slope
  - Water surface
  - Lowest point is channel

Water Quality

- Water Quality Sampling
  - 10 sites
- Bio-Assessment Sampling
  - 6 sites
- Previous Water Quality Sampling
Soil Assessment

- Field Sample
- Laboratory Testing Results
  - Slightly Dispersive

Watershed Characteristics

- Incising streams
- Poor water quality
- Dispersive and highly erosive soils
- Saline wetlands and seeps
- Salt Creek Tiger Beetle habitat
Watershed Characteristics

– Rural watershed, primarily agricultural
– Approximately 1200 acres in Lincoln’s future service limit (Tier I).

Watershed Master Plan Recommendations

• Capital Improvement Projects (CIPs)
• Bridge & Culvert Projects
• Riparian Corridor Enhancement
• Natural Resource Opportunities
Capital Improvement Projects

- 18 Stream Stability Capital Improvement Projects
  - 10 Grade Controls
  - 8 Stilling Basins

Bridge & Culvert Projects

- 6 Bridge & Culvert Projects
  - 4 Bridge Replacements
  - 2 Culvert Replacements
Riparian Corridor Enhancement

- Watershed Management Program
- Implemented using existing programs

Natural Resource Opportunities

- Natural Resource Opportunities
  - Wetland Enhancement
  - Wetland Creation
  - Habitat Enhancement
Drainage Criteria and Ordinance Review

- Water Quality BMPs
- Dispersive Soils Testing
- Conservation Culverts
- Adopt Flood prone Area and Floodway as Best Available Information

Little Salt Creek Watershed Master Plan

*Project Timeline*

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Information Stations

- Five Information Stations
  1. Floodplain Mapping
  2. Capital Improvement Projects (CIP)
  3. Water Quality & Bio-Assessment
  4. Public Involvement
  5. Interactive Watershed Mapping Station

- Visit with Project Team Staff
- Ask Questions
- Comment Cards