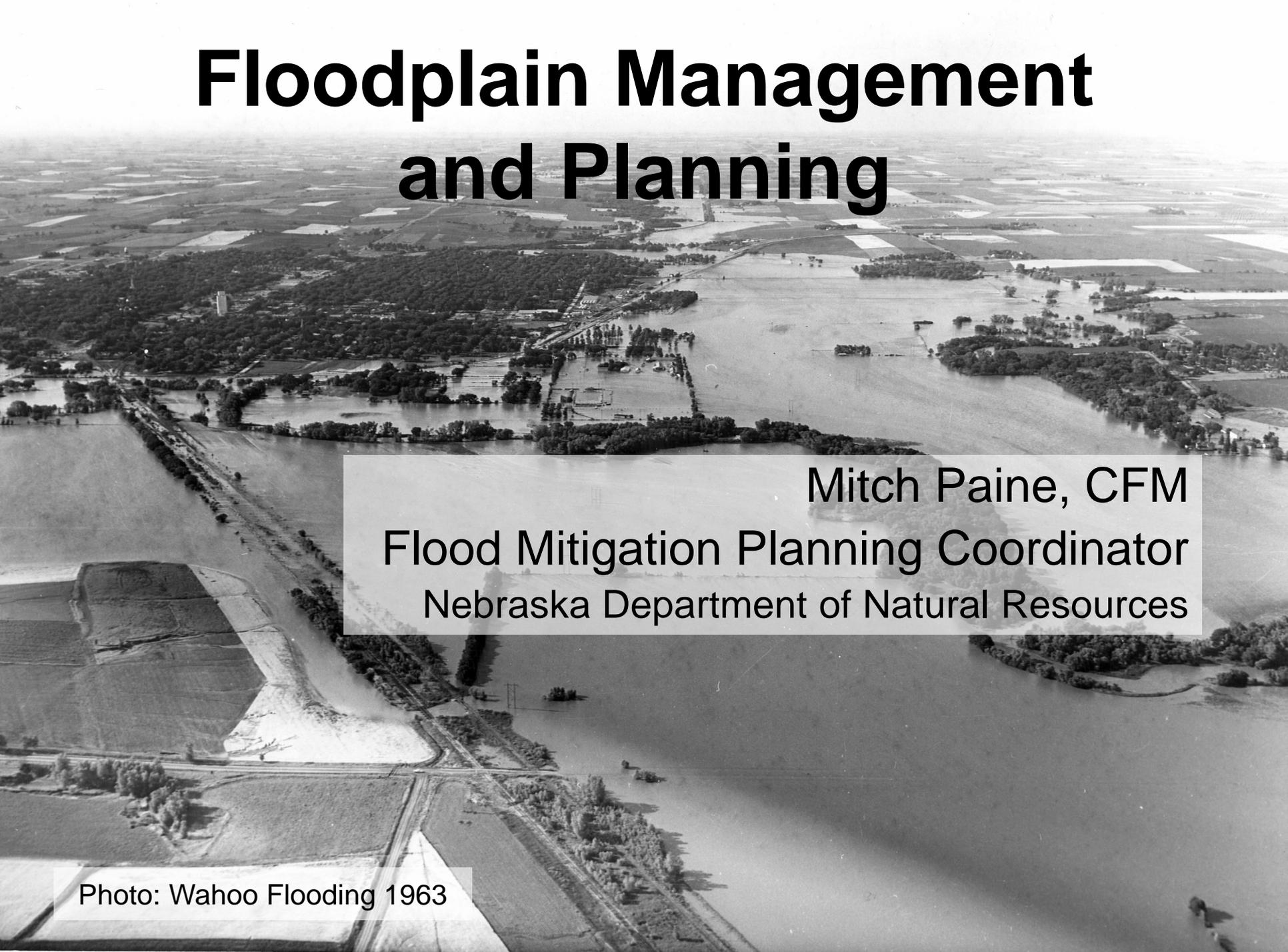


# Floodplain Management and Planning

An aerial black and white photograph showing a vast agricultural landscape inundated with water. The water covers large areas of fields and roads, leaving only some trees and structures visible. The scene illustrates the extent of flooding in the Wahoo area in 1963.

Mitch Paine, CFM  
Flood Mitigation Planning Coordinator  
Nebraska Department of Natural Resources

Photo: Wahoo Flooding 1963

# Floodplain Management and Planning

- Floodplain management gives planners great tools
- Flood maps show where risk is
- Floodplain administrators aren't always part of **planning processes**
  - You should be!

# Planning

- Hazard Mitigation Plans
  - Community Rating System credit
- Comprehensive Plans, Master Plans, Land Use Plans
- Safe Growth Audit

# Hazard Mitigation Plans

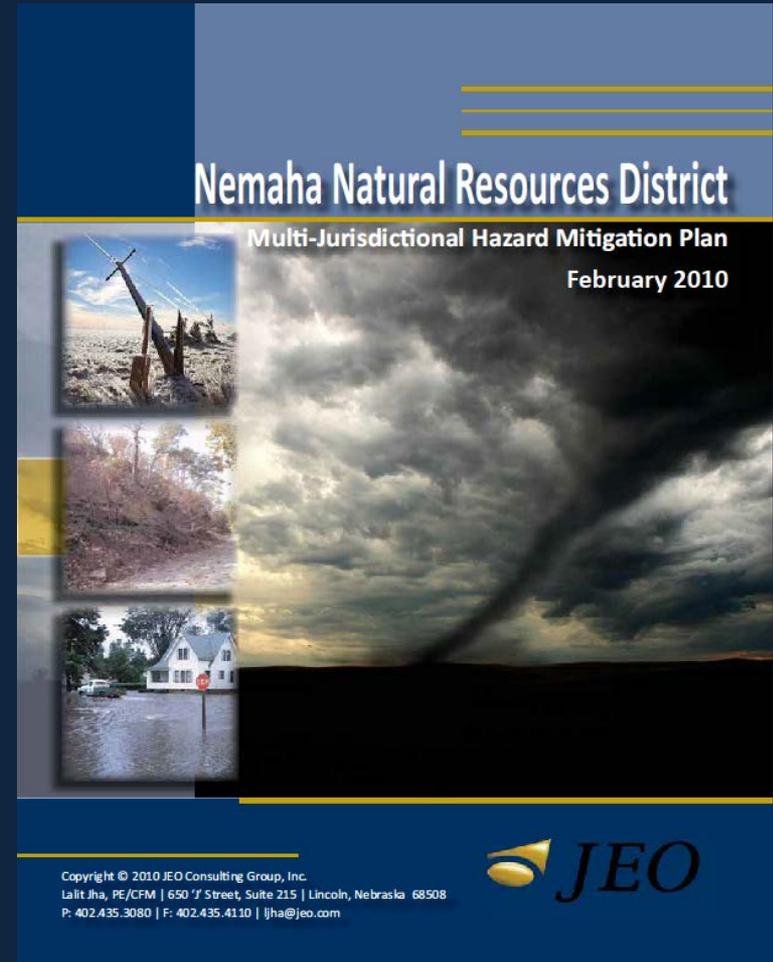
- The Stafford Disaster Relief and Emergency Assistance Act of 2000 requires state and local governments to adopt and update **hazard mitigation plans**
- Have to have HMP to be eligible for Hazard Mitigation Assistance funds
  - HMGP
  - FMA
  - PDM

# Hazard Mitigation Plans

- Multi-jurisdictional
  - NRD-wide
  - Countywide
- Consultant involved in plan development
- All hazards:
  - Flooding
  - Severe winter storms
  - Tornados/high winds
  - Severe thunderstorms
  - Hail
  - Extreme heat
  - Drought
  - Earthquakes
  - Wildfire
  - Levee failure
  - Dam failure
  - Ag disease
  - Fixed site hazards
  - Transportation hazards
  - Terrorism
  - Civil disorder

# Components

- Community profile (population, growth areas, critical facilities, climate, etc.)
- Risk assessment
  - Assess all hazards
  - **Flooding** – FIRMs, historic, non-mapped areas that flood
- Mitigation strategies
- Implementation/maintenance



# Process

- **Planning team** – floodplain administrators should always be on this!
- **Various meetings** – hazard identification, mitigation alternatives, draft development
- **Local efforts:**
  - Data gathering within city/village/county
  - Stakeholders meetings
  - Local “participant sections”

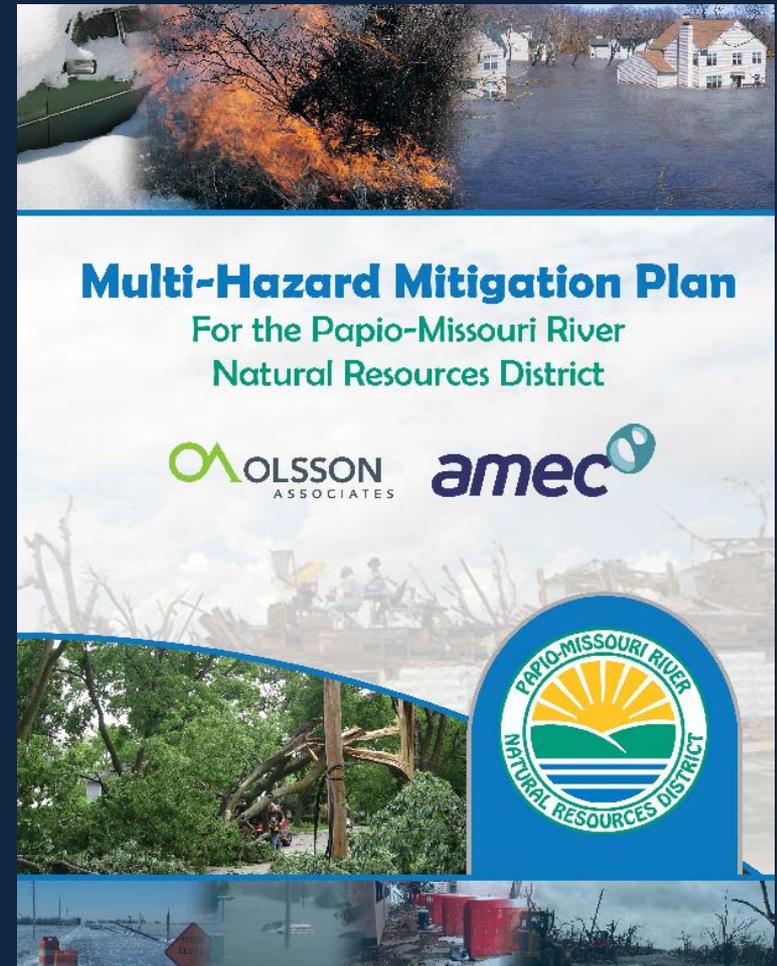
# Mitigation Actions



- Identifying flood mitigation actions in the HMP is important for getting  **funds**  from FMA, HMGP, PDM
- HMPs can qualify for  **CRS credit**  if you participate or are looking to participate

# HMPs and CRS

- CRS will give plans up to 382 points
- Must follow a **10-step process**:
  1. Organize planning team/process
  2. Involve the public
  3. Coordinate with stakeholders
  4. Assess the hazard
  5. Assess the problem
  6. Set goals
  7. Review possible alternatives
  8. Draft an action plan
  9. Adopt the plan
  10. Implement, evaluate and revise



# Hazard Mitigation Plans

- Talk to your Emergency Manager
- Email Mitch or Mary Baker
- **Get involved** in the process

# Floodplain Management and Long-Range Planning

- Comprehensive plans are the **central component** of community planning
- Give a community a **20-30 year outlook and vision**
- Build land-use controls on these plans
- Don't often look at hazards or flooding

# Floodplains and Comprehensive Plans

- Streams/rivers are **permanent** aspects of your community
- Flooding, floodplains, and floodplain management come along with these
- Comprehensive plans should account for these
- Floodplain management requires **a long-term strategy**

# Sections of Comprehensive Plans

- Environmental
- Parks/recreation/open space
- Residential/housing
- Commercial
- Industrial
- Public facilities
- Future Land Use

# Sections of Comprehensive Plans

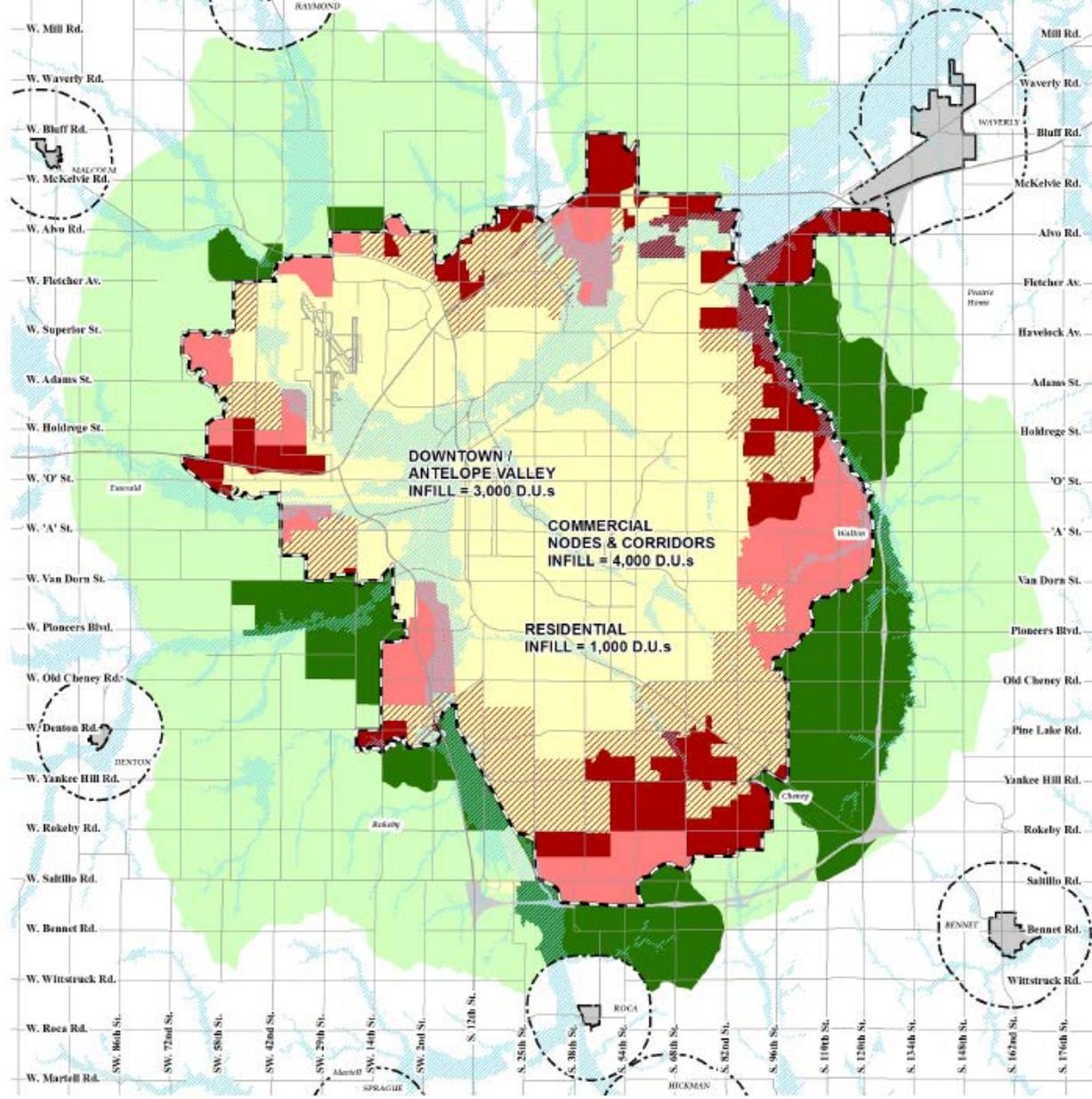
- **Beatrice (2006)**: refers to floodplain as development “barrier”
  - “City has acquired sections of the floodplain and constructed new Beatrice High School and Aquatic Park”
  - Recommendation: “Continue the property acquisition program to develop a greenbelt within the 100-year floodplain”
- **Bellevue**:
  - “Floodplains should be used as conservation areas, open space, or recreational space” (from “Activity Centers” concept section)

# Sections of Comprehensive Plans

- **South Sioux City (2009):**
  - Flooding as history of community, aspect to live with in the future
- **Scottsbluff (2004):**
  - “The North Platte [River] and its adjoining floodplains provide an outstanding environmental and recreational resource for the community and should be protected as such” (from Environment section)
  - Floodplains should have “less intensive types of land use activity in flood hazard areas such as agriculture, open space, recreation, limited mineral extraction, or wildlife preserves” (from Land Use section)

# Lincoln Comprehensive Plan (2011)

- Strategies for Neighborhoods and Housing:  
“Discourage residential development in areas of environmental resources such as [...] floodplain corridors.”
- “In new growth areas, the City of Lincoln and Lancaster County have a policy of No Adverse Impact, with a goal of ensuring that the action of one property owner does not adversely impact the flooding risk for other properties.”



## 2040 PRIORITY GROWTH AREAS

- Existing Lincoln City Limits and Approved Preliminary Plans (2011)
- Floodplain and Flood Prone Areas
- 2040 Future Service Limit
- Tier I, Priority A (Developing)
- Tier I, Priority B (2025)
- Tier I, Priority C (2040)
- Tier II (2060)
- Tier III



Map 1.3: Growth Tiers with Priority Areas

# Land Use Section

- Comprehensive plans should carefully consider the appropriate **land uses** with **floodplains**
- Public meetings should include this discussion
- **Open space** is the best possible use of floodplains
  - Fewer structures = fewer damages, lower risk

# Lexington Comprehensive Plan (2005)

- From Land Use & Development section on Watersheds:
  - “The citizen’s protection against natural hazards is the responsibility of the local government and its officials. The effect of high water or flooding can be lessened by **planned open space** within the designated floodplain, maintenance of the floodway and the application of design standards to reduce run-off.”

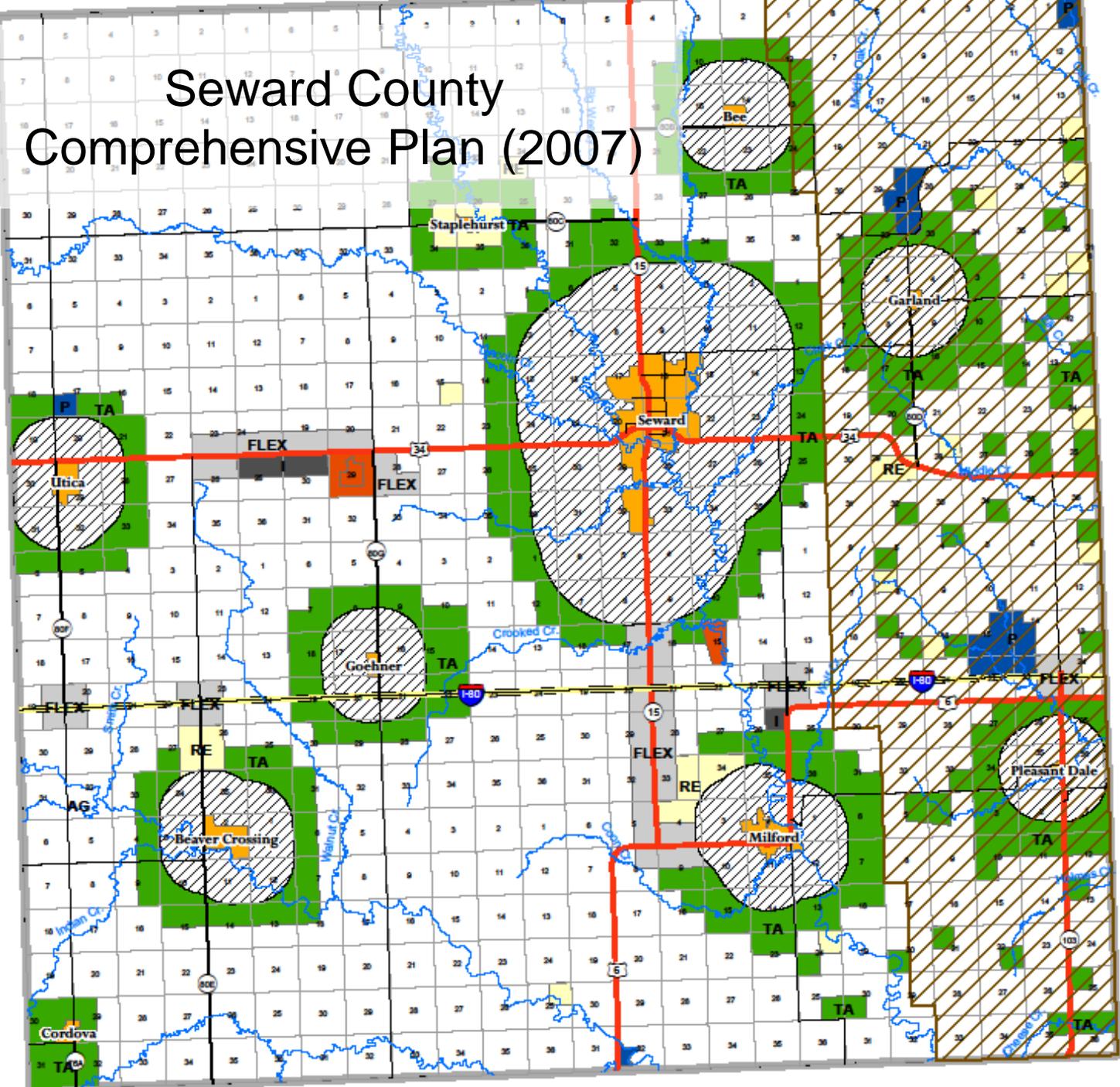
# Floodplain Management and Long-Range Planning

- Any community with a river/stream will have floodplains, **forever**
- Floodplains provide important **natural functions**
- Many stakeholders participate in floodplain management

# Floodplain Management and Long-Range Planning

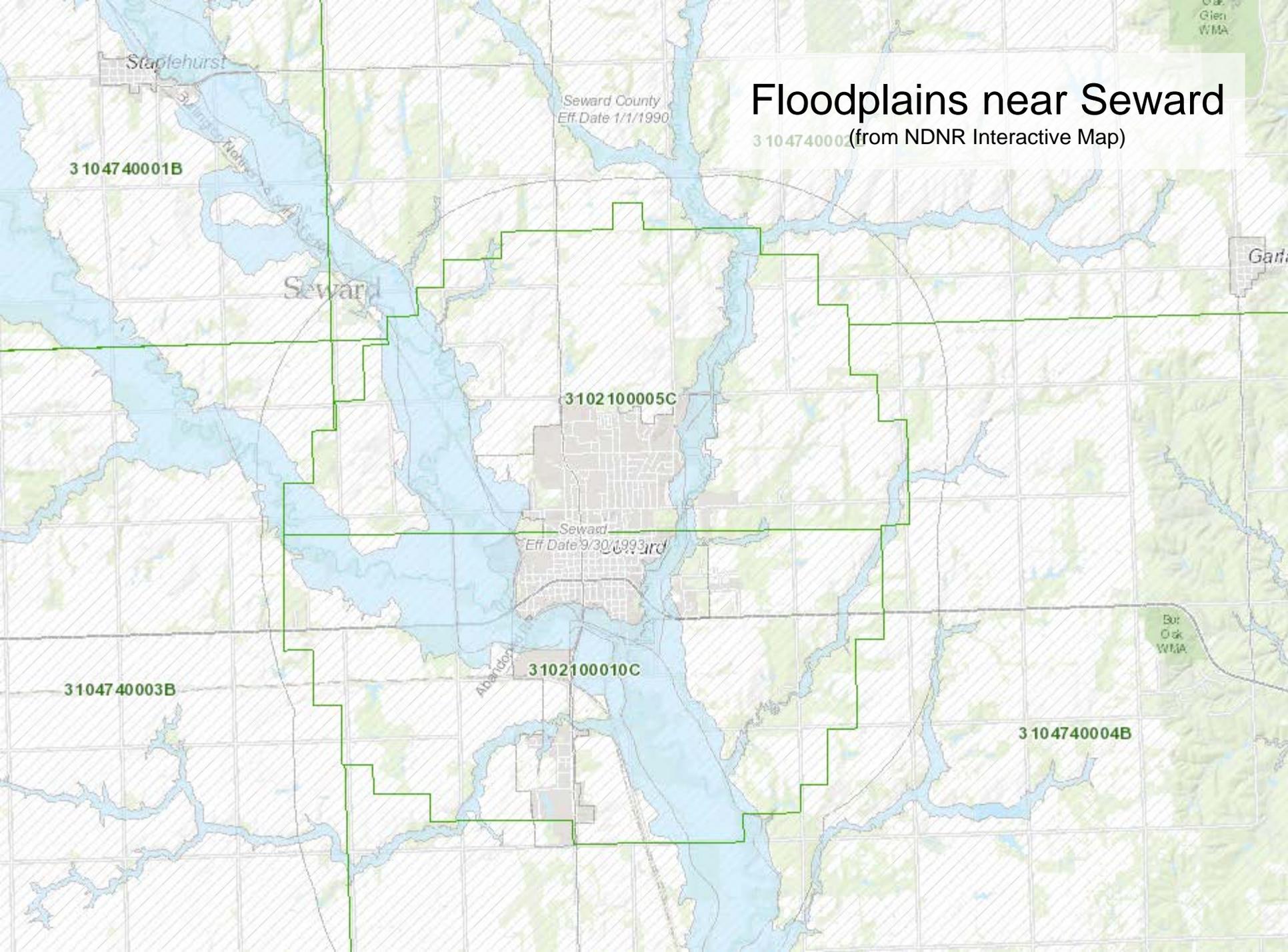
- **Risk reduction** pays off, creates resilient communities
- Long-term strategy required to reduce flood risk, no quick or easy fix
- **Comprehensive plans** are good places to talk about risk reduction
- Floodplain management gives you risk **maps** and other tools
- Community discussion important

# Seward County Comprehensive Plan (2007)



# Floodplains near Seward

3 104740002 (from NDNR Interactive Map)



# Safe Growth Audit

- Developed by American Planning Association
- Helps communities understand how their codes, plans, regulations, etc. promote a safe and resilient community

# Safe Growth Audit

- Does the **zoning ordinance** conform to the comprehensive plan in terms of discouraging development or redevelopment within natural hazard areas?
- Does the **capital improvement program** limit expenditures on projects that would encourage development in areas vulnerable to natural hazards?
- Do the **subdivision regulations** provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources?
- Is **transportation policy** used to guide growth to safe locations?

# Plans

- Hazard Mitigation Plans
- Comprehensive Plans
- Safe Growth Audit

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Beatrice, Google Streetview