

APPENDIX E

Community-Specific Mitigation Planning Information

This section contains mitigation planning information specific to each participating community. Communities are listed in alphabetical order. More detailed information for each community, including: disaster history for each hazard type, structural inventory, and desired mitigation alternatives – listed in order of highest priority to lowest. Local adoption documentation is provided on the page following the community’s information.

Thurston County

	Dam Failure	Drought	Earth-quake	Flood	Summer Storm	Land slide	Winter Storm	Tornado /Wind	Wildfire
Probability	Low	High	Low	High	High	Low	High	High	Low
Extent	Limited	Limited	Unknown	Limited	Severe	Limited	Severe	Severe	Limited
Previous Occurrence	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No

Probability: Based on history, what is the likelihood this type of event will happen again?

- None, Low, Medium, or High

Extent – If this event were to happen, how extensive could the damage be?

- Zero, Limited, Severe, Full, or Unknown

Previous Occurrence: Is there an historic record of this type of hazard in the community?

The above figure shows the input provided at the initial public meeting. Due to the geographical proximity, the following hazard types were not considered due to there being no likelihood of occurring in Nebraska: volcanic eruptions, avalanches, hurricanes, tidal surges, and tsunamis.

In the following sections, only the hazard types which have a significant likelihood of occurring or have a reason to potentially occur are listed. These types are: severe weather (summer and winter), tornado, flood, drought, and dam failure. Although there is a small risk for earthquakes, wildfires, and landslides, citizens did not rank it high enough to warrant detailed discussion in this plan. This may change in future updates.

Disaster History

County-specific disaster histories are given for each hazard type in Chapter 2.

There are no repetitive loss properties in Thurston County.

Past Hazard Mitigation Efforts

Through FEMA’s Flood Map Modernization program, the floodplain maps for Thurston County were started in 2005, with new countywide floodplain maps targeted to become effective in 2007.

Likelihood of Future Hazard Events

It is certain that Thurston County will be impacted by severe weather every year. In these events, it should be expected to witness large hail, high winds, and intense rain in the summer, and large snowfalls, ice, and bitter windchills in the winter. It is also anticipated that Thurston County will experience flood damage, especially in the area of the County where the bluffs cause rapid runoff to the Missouri River lowlands. It is also a certainty that Thurston County will experience tornadoes in the future.

Vulnerability Assessment

The intent was to use the HAZUS software program to assist with the vulnerability assessment for Thurston County since it would take a considerable amount of time to conduct fieldwork and drive every street in the county. However, due to technical difficulties, the HAZUS analysis was not able to be completed within the grant period. A HAZUS analysis for Thurston County will be included for the five-year update.

According to the Nebraska Department of Property Assessment and Taxation, the total assessed taxable value for all of Thurston County (including incorporated areas) in 2005 was \$129,548,809. Broken out by significant real property types, this is:

Agricultural land/personal property:	\$ 104,622,567
Residential real property:	\$ 13,142,295
Commercial real property:	\$ 5,315,262
Public Service Company total property:	\$ 3,684,177
Comm/Ind personal property:	\$ 1,198,414

The difference between the total taxable and real property values is from less significant real property values and personal taxable values.

The entire structure stock is vulnerable to the severe weather, tornado, and drought hazard. This means that, as of 2005, there is \$129,548,809 in at-risk assets for these hazard types.

Mitigation Alternatives

1) Complete the structural inventory for the next Papiio NRD plan update.

Objective 1: Have a reliable structural inventory and to meet the federal requirements for the vulnerability assessment

- Action 1.1: Complete the structural inventory for Thurston County

Funding sources and potential cost: If completed by the NDNR, there will be no cost.

**GOALS: 1) Reduce or prevent future damage from natural hazard events,
2) Increase public safety**

To address these goals, mitigation alternatives were suggested in the public meeting and prioritized by the Thurston County Board.

Prioritization

Thurston County prioritized the mitigation alternatives according to the “STAPLE(E)” procedure (Social acceptability, Technical feasibility, Aministrative capability of local government, Political acceptability, Legal authority to implement, Economic justification, and Environmental acceptability). In addition, alternatives were prioritized based on the community’s goals and planning objectives.

At its discretion, Thurston County may choose to not implement any of the proposed mitigation projects at this time with the realization that future events may change this stance as well as the prioritization of projects. Projects sponsored for implementation will follow a public process.

2) Participate in the National Flood Insurance Program

Objective 2: Give people who live in unincorporated Thurston County the option to purchase flood insurance. The US Army Corps of Engineers and Nebraska Department of Natural Resources are currently working on completing preliminary floodplain maps for Thurston County with anticipated completion targeted for 2006 or 2007. Once preliminary maps are completed, there are official federal protocols which require public review and comment periods. After this period is completed, the preliminary maps are sent to the mapping contractor of the Federal Emergency Management Agency to revise them and to issue final maps. Thurston County will have one year from the effective date of these final maps to pass a floodplain management resolution or it will face being considered a “sanctioned” community. Sanctioning means floodplain maps have been completed, but the jurisdiction has not passed the ordinance and is not regulating floodplain development. A sanctioned status also may jeopardize various forms of grant funds.

- Action 2.1: Pass a floodplain management ordinance after the final floodplain maps are issued by FEMA

Funding sources and potential cost: There is no cost to pass the resolution; however, a local administrator will be required to put in staff time. Since the small amount of development in Thurston County is not likely to take place in a floodplain, the administration of the National Flood Insurance Program will not be burdensome.

3) Upgrade problem Thurston County bridges

Objective 3: Increase the ability of vulnerable county bridges to withstand flooding

- Action 3.1: Mitigate county road bridges which restrict flood flows and cause flood damage to the road, bridge, and surrounding land and development. **Figure 1** shows the locations of the three bridges that the Thurston County Roads Department would like to mitigate if funding were available. The numbers adjacent to the dots are the chronological order of priority given by the Highway Superintendent. In all three cases, the mitigation action would be to replace the existing bridge with a longer bridge and to provide protection from streambank erosion to the bridge supports and approaches.

By number (See Figure 1), the bridge improvements are:

#1: Parker Bridge on Q Avenue near 36 Road on South Blackbird Creek, 4 miles south of Macy

#2: Moore Bridge on 25 Road near F Avenue on North Omaha Creek, 5 miles northwest of Walthill

#3: Schmedding Bridge on an unnamed tributary of North Omaha Creek, 6.3 miles northwest of Walthill and 6.1 miles northeast of Thurston

#4: Winnebago Bridge (County bridge #20820) on Omaha Creek immediately west of Winnebago

Funding sources and potential cost: Public Assistance funds from FEMA following a federally-declared disaster for Thurston County – cost varies by project and scope

4) Ensure adequate severe weather notifications to critical facilities

Objective 4: Purchasing or education of a weather radio

- Action 4.1: For County-owned critical facilities, the County should consider purchasing a weather radio to be used in each facility for the rapid dissemination of a severe weather warning.
- Action 4.2: If the County has noisy manufacturing facilities which may not hear tornado sirens, the County could inform the owners of these facilities of the option that they could purchase a weather radio.

Funding sources and potential cost: Thurston County, local businesses. Approximate cost about \$50 per radio.

Implementation

To start implementation, determining which projects should be submitted for funding will be based on a FEMA-approved cost-benefit method. This means that proposed projects would need to be reviewed for cost effectiveness with the assistance of state emergency management or floodplain management personnel. Unless otherwise delegated, the County Clerk will be the person responsible for project administration of any project selected for implementation. FEMA has the authority to approve or deny mitigation projects applied for under their agency's mitigation programs.

Evaluation

In this plan, several potential mitigation projects are identified; however, it is not designed to have an all-inclusive list of projects. It is designed to be a living document which can be adapted to the landscape as conditions change. This means that this plan should be revised and updated as new projects are identified and prioritized and participating communities. There is a requirement to review and update this plan every five years. To do this, communities will follow the same procedure that the Papio NRD will utilize in its mitigation plan updates, which is detailed on page 56 of the NRD portion of this report. There are also evaluation, update, and revision worksheets which have been included in this plan as **Appendix B** to assist with this process.

Figure 1 Thurston County Bridge Mitigation Projects

