

Special Topics

Harper County Disaster Resiliency Assessment

The purpose of this section is to assess at the county level key components of disaster resiliency. Housing location and quality as well as planning activities can help reduce impacts from disaster events and allow for faster recovery. Disasters can include tornadoes, extreme weather, high winds, as well as man-made events. These events may largely be inevitable, but the ability to reduce damage and casualties as well recovery can be improved with good planning.

C.0 Comprehensive Plans & Hazard Mitigation Plans

There are 4 key cities within the county (Buffalo, Laverne, Rosston, and May). Both Buffalo and Laverne are at a population under 2,000 it is not surprising that they do not have a comprehensive plan.

Comprehensive plans are the guiding documents for cities of various sizes to address key aspects of their community from land use, transportation, environment, housing, and economic development.

As the towns grow, the larger urbanized areas should consider creating a comprehensive plan to guide the way they want to encourage growth and preservation of culture. Additionally, this would be an opportunity to include objectives to manage risks related to disasters

The other key plan for a city to manage, mitigate and plan for recovery related to disasters is a **Hazard Mitigation Plan** (or Emergency Management Plan). Often low density counties, the Hazard Mitigation Plan is done at the county level, though some cities may augment the county plan with a city plan.

Harper County does have a Hazard Mitigation Plan and should be expiring in 8/2016. However, we were unable to get a copy of this plan for this county to include in this overview for the county.

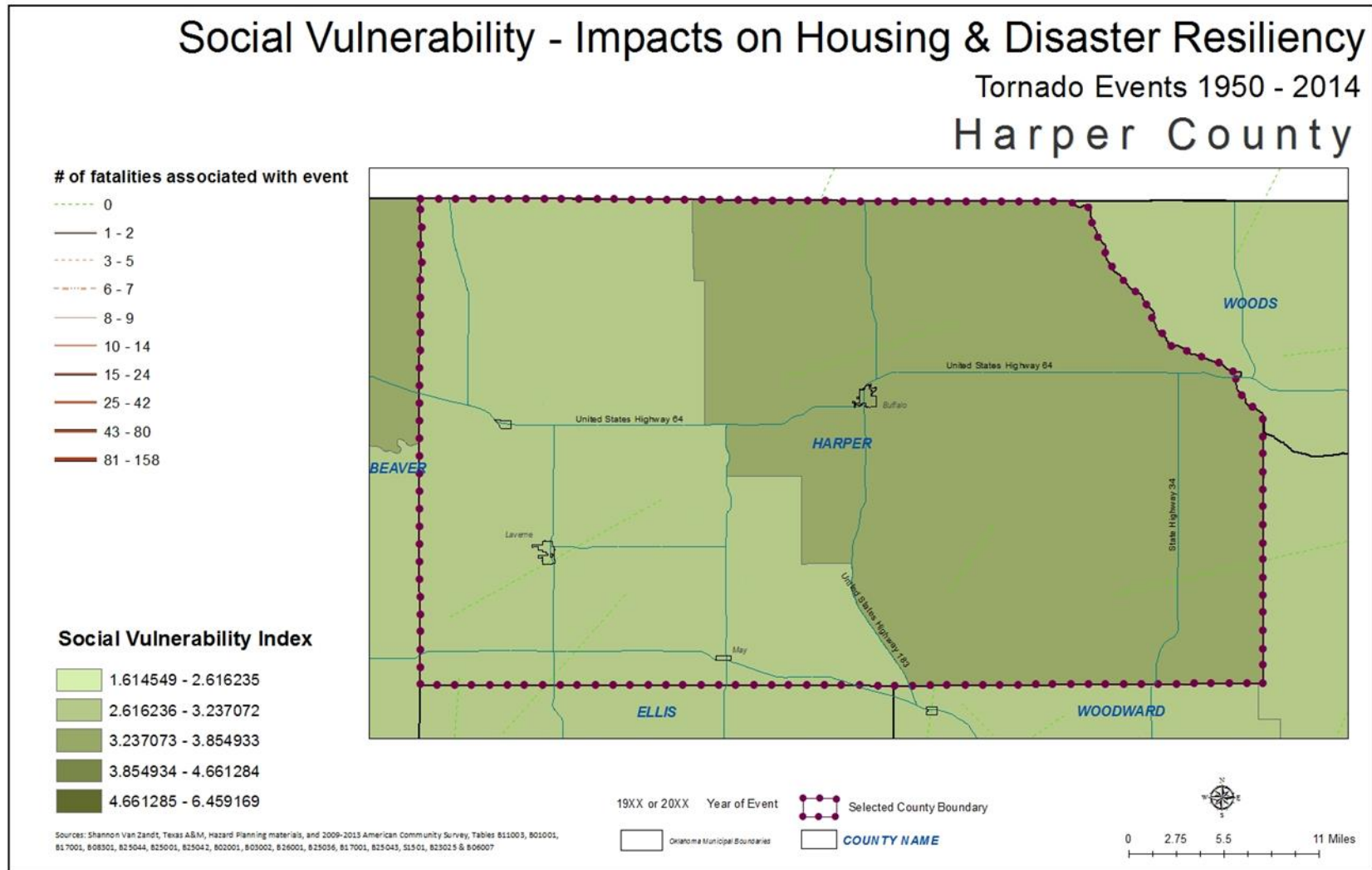
C.2.1.1. Historical Data on Natural Disasters and Other Hazards

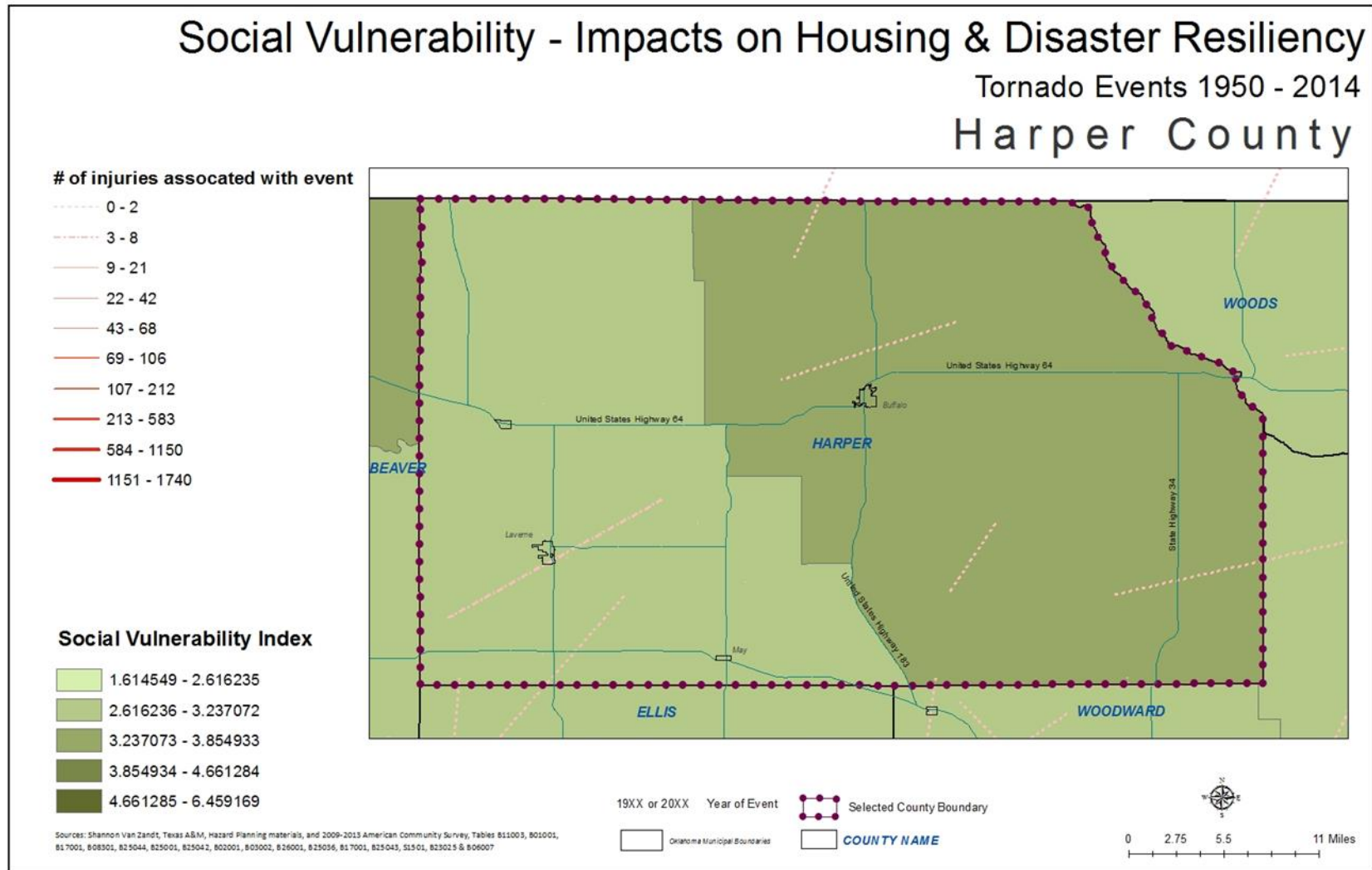
Data on historical damages and casualties is typically collected as part of a **Hazard Mitigation Plan** preparation to determine the appropriate planning measures and actions to take before and after an event.

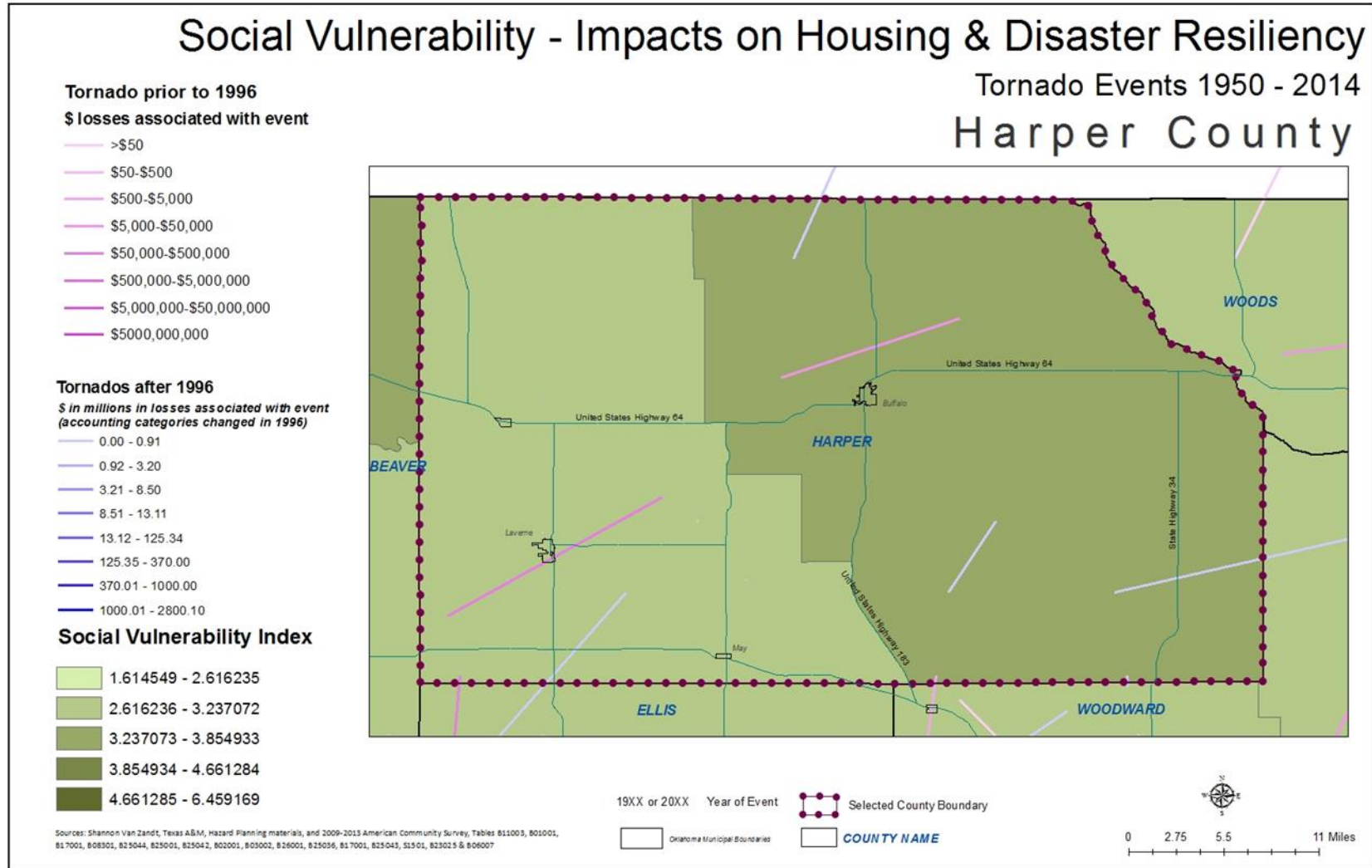
Flooding, based on FEMA FIRM maps, does not show floodplain areas in the county. The National Flood Hazard Layer (Official) is not available for this area. Flash flooding is a concern for all parts of the state after heavy precipitation.

NOAA data shows the following historic data on disaster events for the county:

Historic data on tornados between 1960-2014 there are 22 tornados documented. There were 7 injuries that occurred connected to these tornados, with 3 of those injuries happening in the 1991 tornado. There were 0 fatalities connected to tornadoes during this time period. Property losses between 1960-1996 ranged from \$ \$121,051.00 and \$1,210,550.00. (The accounting methods used for losses changed in 1996.) The losses estimated between 1996-2014 was \$140,000.00.







C.2.1.2; C.2.1.6; C.2.1.7;C.2.1.8 Shelters from Disaster Event

No online shelter registry information.

C.2.1.3 Public Policy and Governance to Build Disaster Resiliency

Information not available.

C.2.1.4 Local Emergency Response Agency Structure

Information not available.

C.2.1.5 Threat & Hazard Warning Systems

No information available.

Social Vulnerability

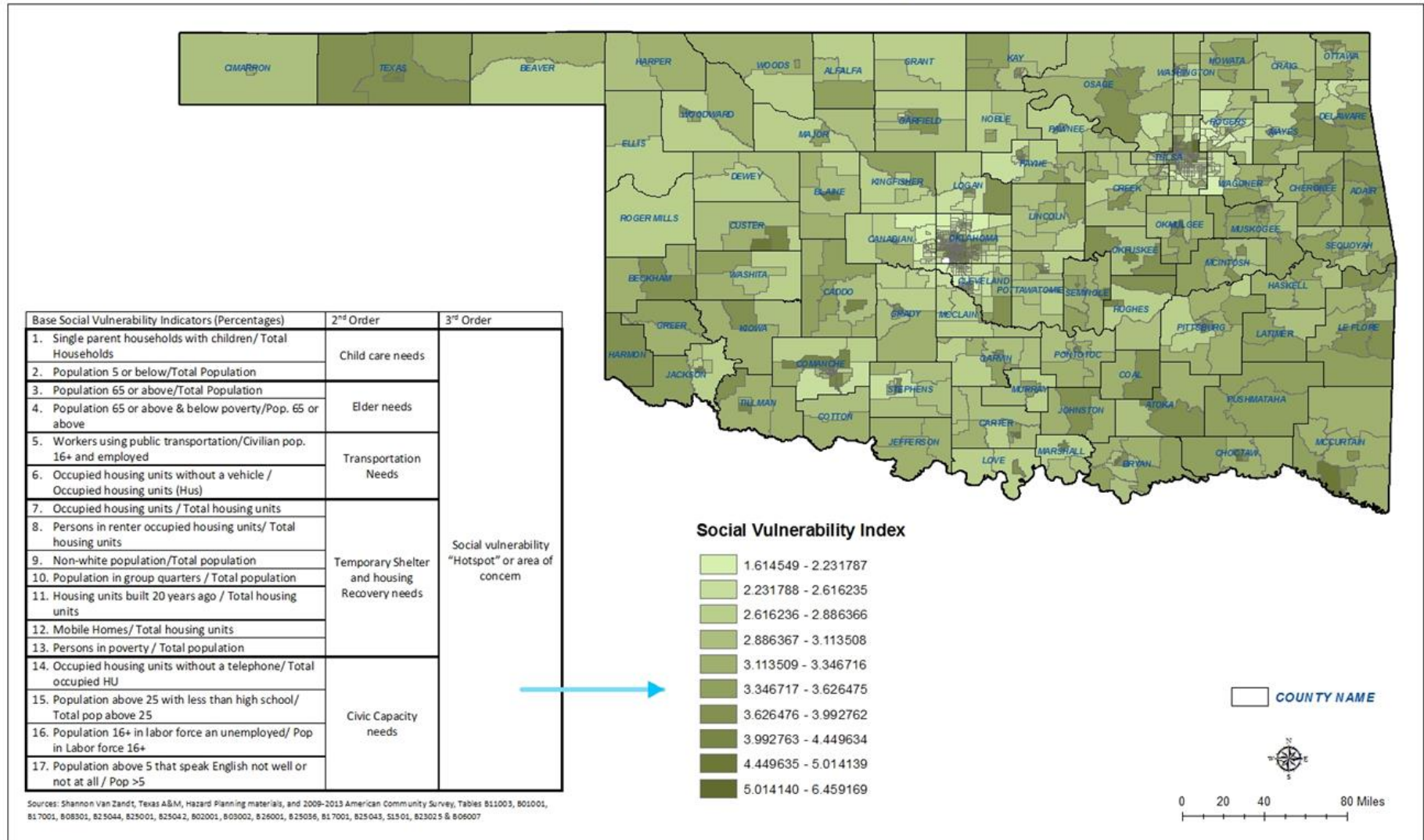
Based on the research work done by the Texas A&M University Hazard Reduction and Recovery Center, an added component is being included in this section. Social vulnerability can place households at a further disadvantage during and after a disaster. This analysis is assessing for the county the levels of social vulnerability based on demographic indicators to highlight ‘hotspots’ or counties that have higher social vulnerability. That combined with Hazard Mitigation Plans – or lack thereof – can highlight places where additional work is needed to reduce impacts on households.

Social Vulnerability Analysis - Harper County			
Base Social Vulnerability Indicators			
(%)		2nd Order	3rd Order
1.) Single Parent Households	9.81%	0.174	3.187 Social Vulnerability 'Hotspot' or Area of Concern
2.) Population Under 5	7.55%	(Child Care Needs)	
3.) Population 65 or Above	18.17%	0.298	
4.) Population 65 or Above & Below Poverty Rate	11.64%	(Elder Needs)	
5.) Workers Using Public Transportation	0.00%	0.021	
6.) Occupied Housing Units w/o Vehicle	2.08%	(Transportation Needs)	
7.) Housing Unit Occupancy Rate	78.40%		
8.) Rental Occupancy Rate	19.50%		
9.) Non-White Population	20.65%	2.343	
10.) Population in Group Quarters	1.46%	(Temporary Shelter and Housing Recovery Needs)	
11.) Housing Units Built Prior to 1990	90.08%		
12.) Mobile Homes, RVs, Vans, etc.	9.35%		
13.) Poverty Rate	14.86%		
14.) Housing Units Lacking Telephones	8.04%		
15.) Age 25+ With Less Than High School Diploma	14.50%	0.351	
16.) Unemployment Rate	2.88%	(Civic Capacity Needs)	
17.) Age 5+ Which Cannot Speak English Well or Not At All	9.71%		

Sources: Shannon Van Zandt, Texas A&M, Hazard Planning materials, and 2009-2013 American Community Survey, Tables B11003, B01001, B17001, B08301, B25044, B25001, B25042, B02001, B03002, B26001, B25036, B17001, B25043, S1501, B23025 & B06007



Social Vulnerability - Impacts on Housing & Disaster Resiliency



Social Vulnerability - Impacts on Housing & Disaster Resiliency

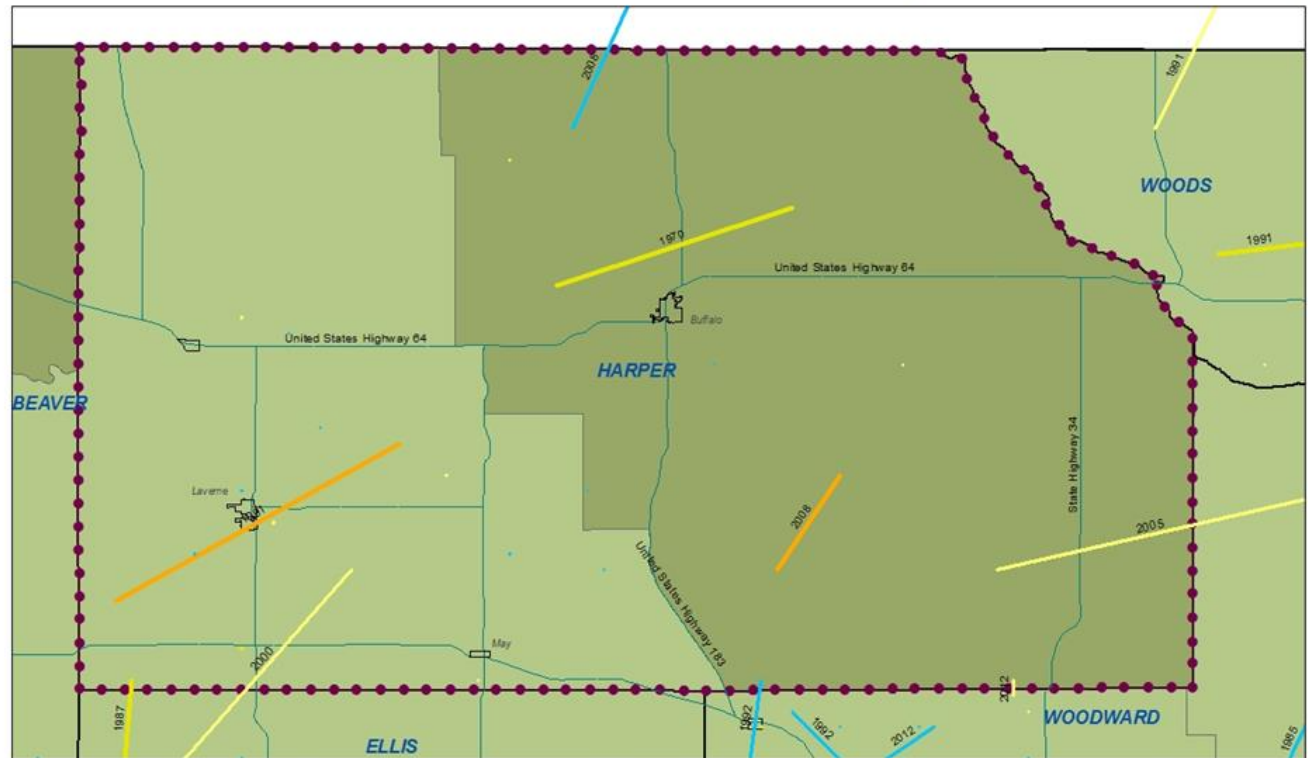
Tornado Events 1950 - 2014

Harper County

Tornado Magnitude



Social Vulnerability Index



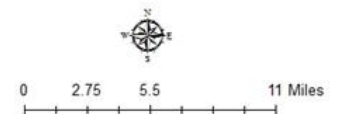
19XX or 20XX Year of Event

Selected County Boundary

Oklahoma Municipal Boundaries

COUNTY NAME

Sources: Shannon Van Zandt, Texas A&M, Hazard Planning materials, and 2009-2013 American Community Survey, Tables B11003, B01001, B17001, B08301, B25044, B25001, B25042, B02001, B03002, B26001, B25036, B17001, B25043, S1501, B23025 & B06007



Social vulnerability combined with the devastating impacts of a natural or man-made disaster can compound a household's ability to recover and in fact can place those individuals at an even greater gap or disadvantage prior to the event (Shannon Van Zandt, Texas A&M, Hazard Planning).

This county falls below the state score per this index for social vulnerability when comparing as a county to other counties in the state. There does not appear to be a great distinction in vulnerability county-wide versus census tracts or more populated areas of the county.

Recommendations for this county:

- Create an online shelter registry for location of individual and business-based shelters.
- Update and maintain the county HMP and include attention to areas within the county that in addition to physical vulnerability may have compounding social vulnerability factors.
- Efforts to strengthen building codes related to tornadoes and natural disasters should be considered.
- Planning for shelters from disaster events for multifamily, HUD and LIHTC units, in addition to all housing in the community should be incorporated with any effort to increase housing.