
APPENDIX B: CITIZEN SURVEY

CONVERSE COUNTY HAZARD MITIGATION PLAN SURVEY

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MMI Planning

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Converse County Hazard Plan Survey

INTRODUCTION

The Converse County Hazard Mitigation Plan Survey is part of a larger effort to update the Hazard Mitigation Plan for Converse County and its four incorporated municipalities. The survey was conducted to understand opinions of citizens residing in Converse County about natural hazards and specific mitigation actions. The results of the survey will be used in updating the Hazard Mitigation Plan.

Diana Bulman from the Converse County Emergency Management Office prepared and mailed all survey materials. The surveys were returned to and collected by the Emergency Management Office. The consulting team wishes to acknowledge this contribution as critical to the success of the survey.

SURVEY METHODS

The survey was a sample survey. A sample consisting of 221 registered voters was randomly drawn from the Converse County voter rolls. The sample constituted 4% of the total number of voters residing in the county (5,546).

The survey process began on February 14, 2011. To start, the 221 voters were each sent a postcard advising of their inclusion in the survey and requesting their participation. Eight days later, the survey questionnaire was sent to the sample list. Along with the questionnaire, voters were sent a cover letter explaining the survey. Two weeks into the process, a reminder postcard was sent to every individual in the sample. The survey was then closed on March 23, 2011 and responses received after this date were not included.

During the process, a number of mailings were returned by the Post Office as undeliverable. Consequently, 11 voters were eliminated from the sample and the final sample size was 210 voters. At the close of this survey, out of the total of 210 delivered surveys, 97 surveys were completed and returned.

SURVEY ACCURACY

The purpose of a sample survey is to make generalizations about a population based on a scientifically selected subset of that population. A sample survey allows us to understand the views of the entire county by communicating with only a sample of the people in the county. If conducted properly, sample survey results can accurately represent the views of all people in the county.

This survey was designed to achieve an accuracy level of +/- 10%. This means that the results from the sample of voters have a 95% probability of being within 10% of the answers that all voters would give. For example, if 65% of the survey respondents said "yes" as the answer to a question then it is highly probable (95% chance) that between 55% and 75% (+ or - 10%) of all voters would have also answered "yes". For the Converse County Survey, achieving this level of accuracy is dependent on receiving at least 95 responses. Because 97 survey questionnaires were completed and returned, the survey has met this accuracy goal.

How representative the survey results are is also affected by the survey response rate. The response rate is the percentage of the surveys that are completed and returned. As a general rule, when the response rate reaches 50% "self-selection bias" is not a concern. Self-selection bias is where the survey respondents are not representative of the entire population and have biased the survey results in one way or another. In mailed surveys with low response rates such as 10%, self-selection bias is almost certain. In the Converse County survey, the response rate was 46%, not quite reaching the 50% goal, and indicating that the survey sample has a small risk of not representing the whole population.

SURVEY QUESTIONS

The questions asked in the survey were developed by the hazard mitigation consultants with input from the Emergency Management Agency staff. The questions were multiple choice with most having "other" as an open-ended answer choice. This allowed survey respondents to write-in their own answer. The full text of the survey appears at the end of this report.

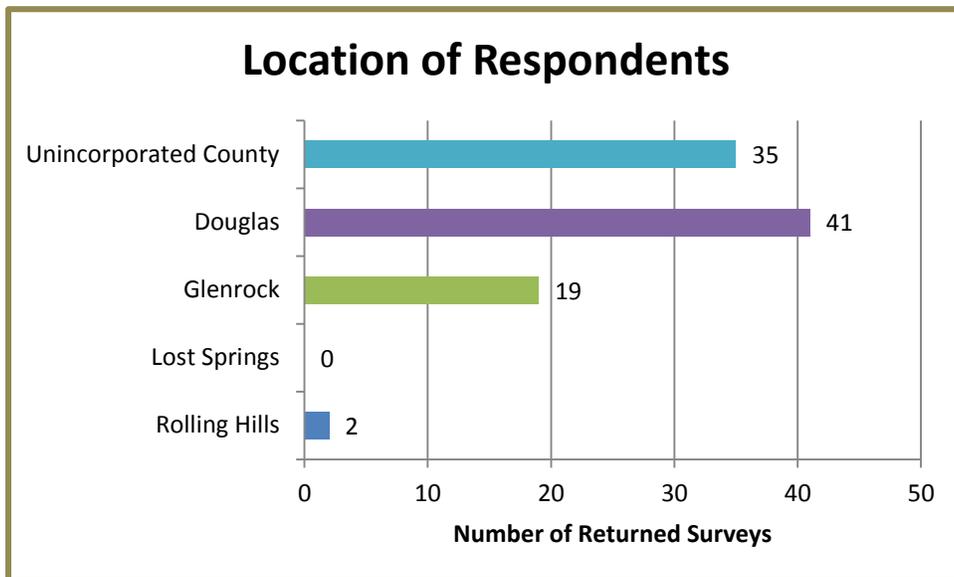
SURVEY RESULTS

Survey results are presented beginning on the next page. The results are mostly reported as percentages. The percentages represent the percent of 97 surveys that were returned. For example, 52% equals 50 survey responses.

In questions where more than one answer could have been selected, the percentages are again based on the 97 returned surveys. In other words, if respondents could select answers "A" or "B" or both, the results will show the percent of the 97 respondents that picked "A" either alone or combined with the other answer. So if 33 respondents answered "A" and 17 more answered "A and B", the result for answer "A" is shown as 52% ($33+17 \div 97$).

Question #1 – Respondent’s Location

The first question asked survey respondents to indicate where they live: in Douglas, Glenrock, Lost Springs, Rolling Hills, or in Converse County outside of a town or city. Most respondents (36) indicated that they live in Douglas. The unincorporated county area was the next most common answer with 35 and Glenrock third with 17 responses. Two responses were received from Rolling Hills and none from Lost Springs.

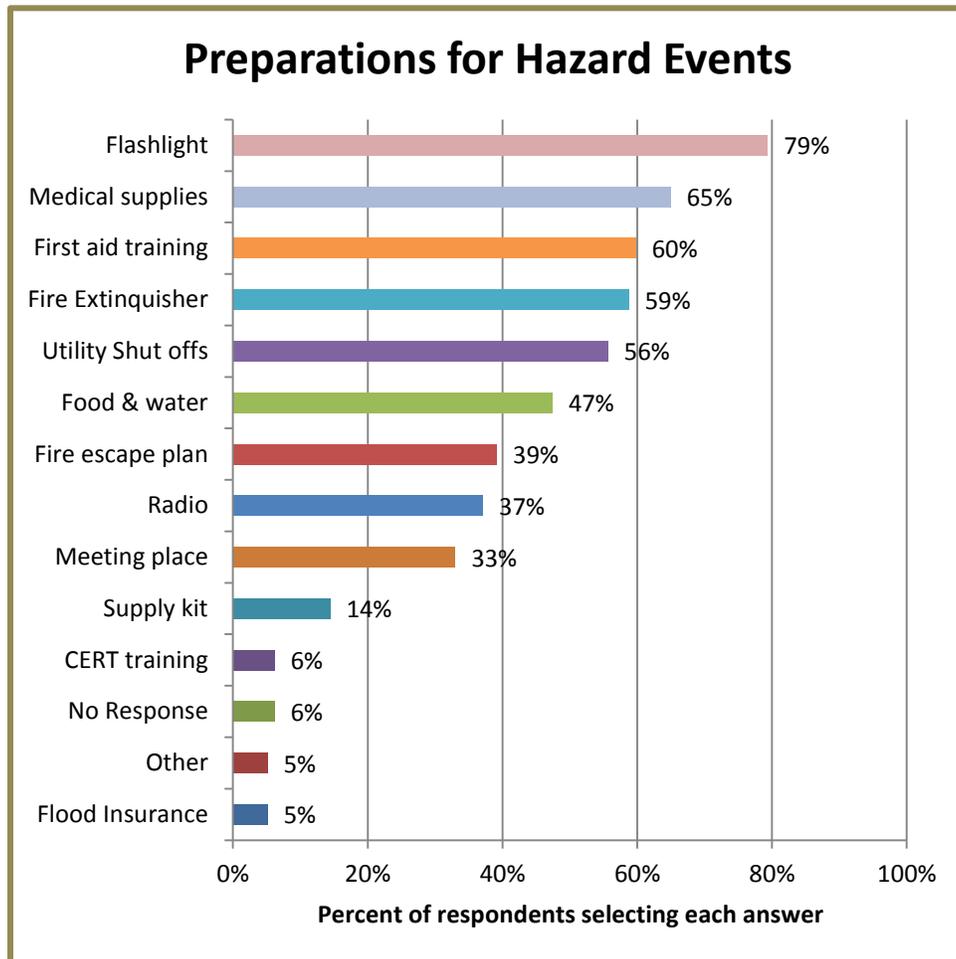


The location of respondents is roughly comparable to the U.S. Census Bureau’s 2009 population estimates. The percentage of respondents from the unincorporated county is slightly higher than the estimated percentage of residents that reside in the unincorporated county.

	2009 Population	Population Percent	Survey Responses
Douglas	6,212	40%	42%
Glenrock	2,466	16%	20%
Lost Springs	1	0%	0%
Rolling Hills	512	3%	2%
Unincorporated County	4,387	28%	36%

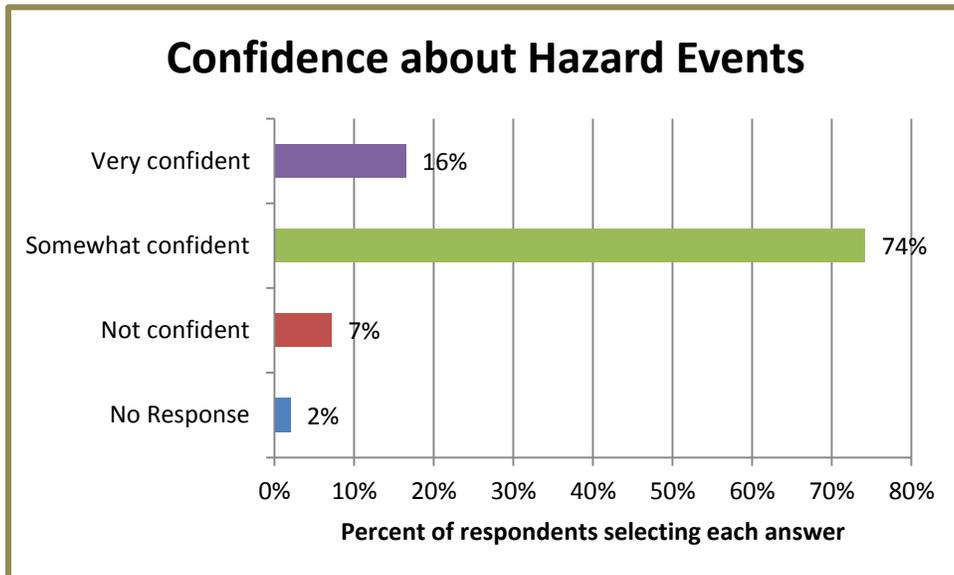
Question #2 – Preparations

This question asked respondents to indicate which steps their household has taken to prepare for hazard events. The most common response was "stored a flashlight and batteries" which 79% of respondents said they had done. In addition, more than half of all respondents said they had: stored medical supplies, received first aid/CPR training, stored a fire extinguisher, and identified utility shut-offs. Other preparation were employed by less than half of the respondents.



Question #3 – Confidence about Hazard Events

This question asked respondents how confident they are that their household would know what to do in a natural or man-made hazard event. Most respondents (74%) indicated that they are “somewhat confident” in their household’s ability to deal with hazard events, while only (16%) said they were "very confident". On the other hand, 7% of respondents said they were "not confident" that their household would know what to do in a hazard event.



Question #4 – Concern about Specific Hazards

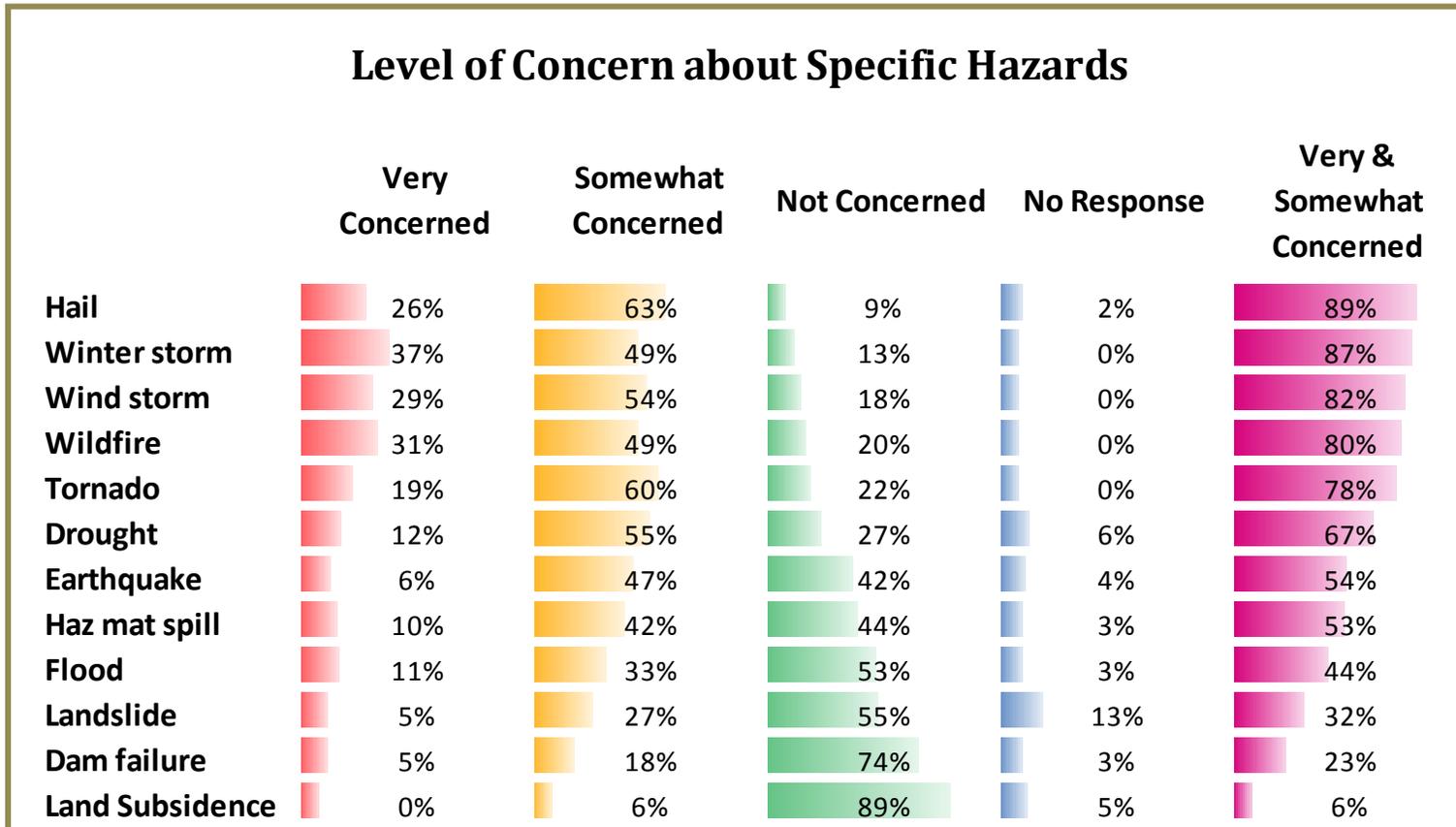
This question asked respondents to review a list of different hazards and rate each in terms of how concerned they are about the specific hazard. Answer choices were "not concerned", "somewhat concerned", and "very concerned." The results are shown on the next page.

To evaluate the responses, the results are sorted based on how many people answered either "somewhat concerned" or "very concerned". This combined result is shown in the far right column of the table on the next page. The hazards are sorted from highest to lowest in terms of this combined result.

The results indicated that "hail", "severe winter storms", "wind storms", "wildfire", and "tornados" are the top concerns each identified by 78% or more of the respondents. Lesser concerns were "drought", "earthquakes", and "hazardous material spills" were the next highest grouping with more than half of all respondents indicating concern about each of these hazards.

The hazards with the lowest indication of concern were "dam failure", "flood", "landslide", and "land subsidence".

It should be noted that some hazards such as landslides and dam failures may be location-specific and would not likely be a major concern of every resident. Other hazards, such as winter storms and earthquakes could affect any or all areas of the county. Some hazards with low indications of concern at the countywide scale could potentially be of much higher concern to people in specific, vulnerable locations.

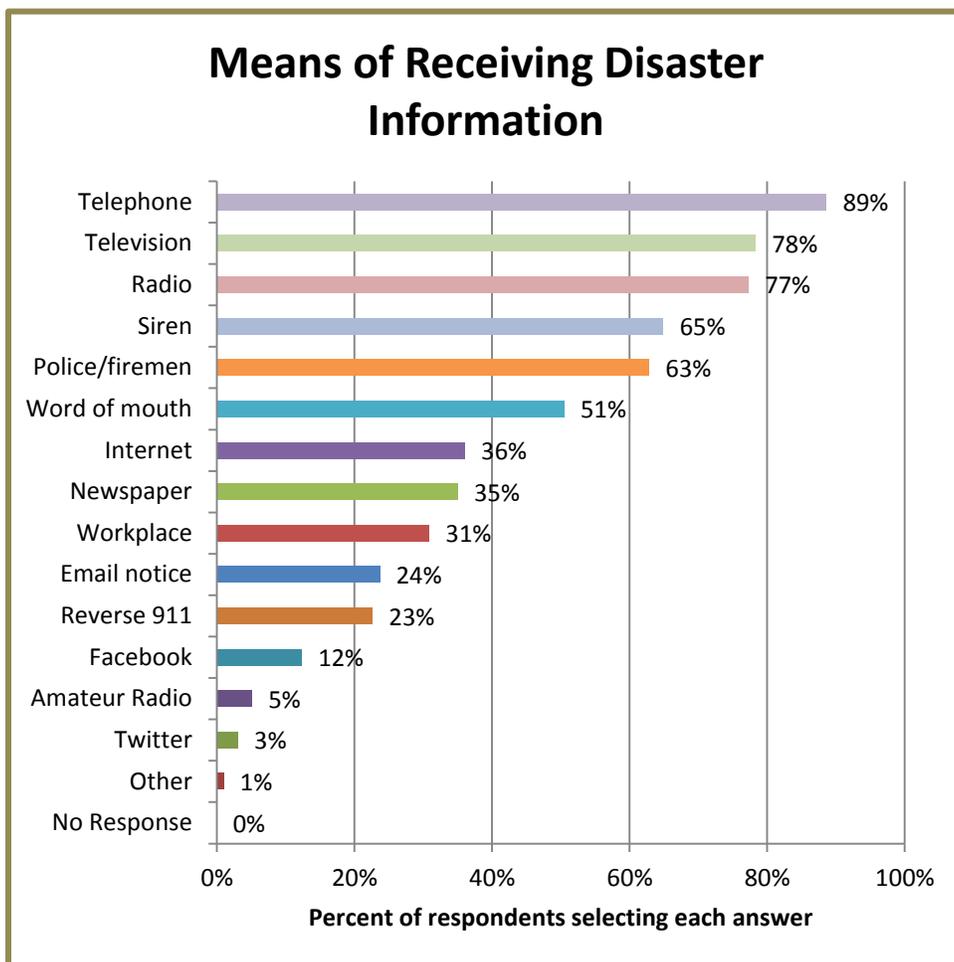


Question #5 – Receiving Disaster Information

This question asked people which means they would use to receive information during a disaster. Most people indicated that they would use television, telephone, and radio. All other methods of getting information were significantly less important.

More than half of all respondents (65%) said they would get information by siren warning; directly from police or firemen (63%); and by word of mouth (51%). Regarding other means, less than half of respondents said they would get information by: off the Internet (36%); from newspapers (35%); at their workplace (31%); by email notices (24%); and by Reverse 911 (23%). Survey respondents rarely selected some newer methods of communication, such as Facebook (12%), Amateur radio (5%), and Twitter (3%).

It should be noted that most respondents selected more than one answer to this question. This indicates that most people would expect to receive information during a disaster by more than one method. Several people indicated that the different siren signals need to be better explained.



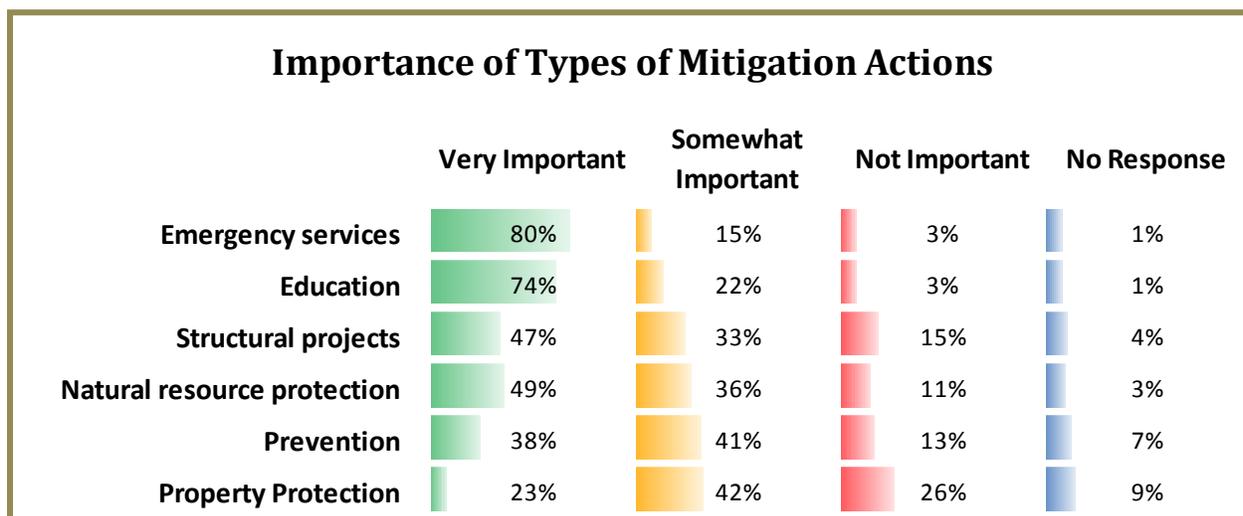
Question 6 - Mitigation Actions

This question asked respondents to review a range of actions that their community could undertake to reduce the risk from natural hazards. Respondents could rate each action as "very important", "somewhat important", or "not important".

The results are sorted in the table below based on most important to least important. "Emergency services" and "public education" were the most preferred types of actions while "property protection" was the least popular action choice.

The actions were defined in the survey as follows:

- Emergency Services: Examples include warning systems, evacuation planning, emergency response training, and protection of critical emergency facilities or systems.
- Public Education and Awareness: Actions to inform citizens about hazards and techniques they can use to protect themselves and their property.
- Structural Projects: Examples include dams, levees, detention/retention basins, channel modification, retaining walls, and storm sewers.
- Natural Resource Protection: Examples include floodplain protection, slope stabilization, and forest management.
- Prevention: Actions to influence land and building development. Examples include planning and zoning, building codes, and floodplain regulations.
- Property Protection: Actions involving existing buildings to reduce hazard risk. Examples include acquisition, relocation, elevation, and structural retrofits.

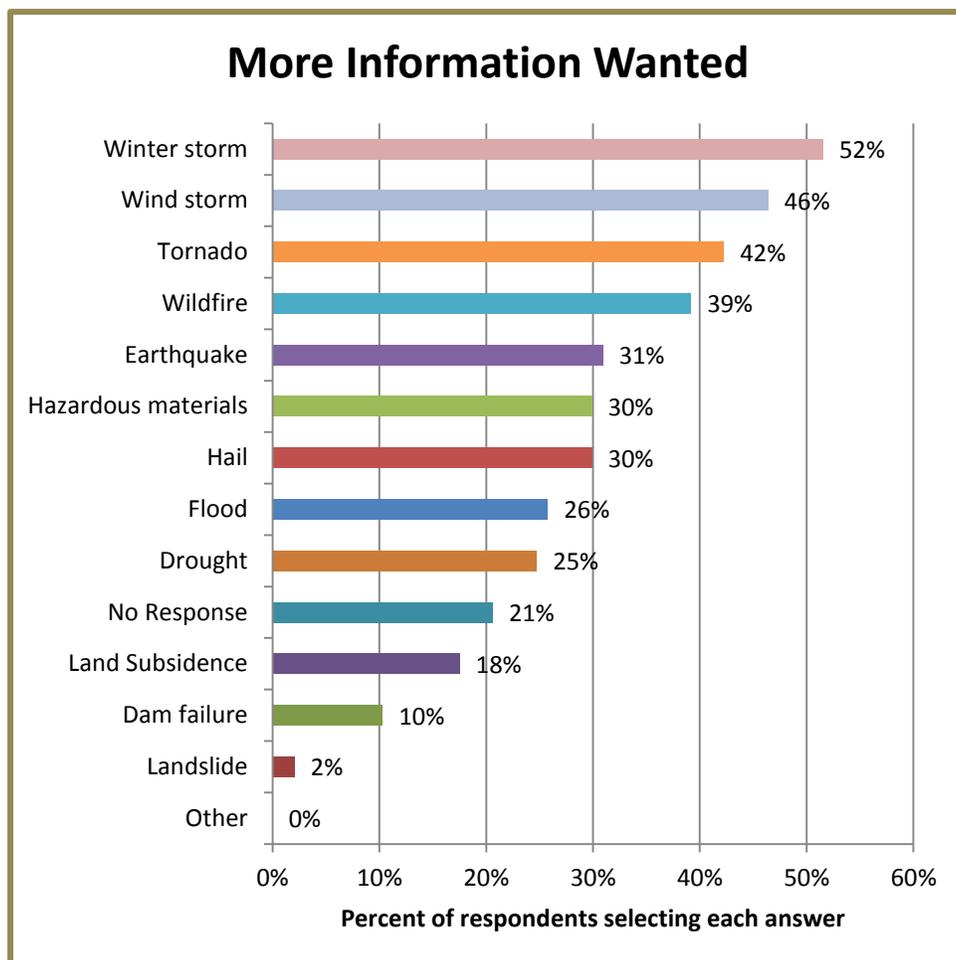


Question 7 - More Information Wanted

This question was the last question on the survey form. It asked respondents to identify hazards about which the respondent would like to receive more information. Respondents could pick more than one answer and usually did. These results may indicate the most productive topics for public education efforts.

More than half (52%) indicated they would like more information about "severe winter storms". More than one-third want more information about "wind storms", "tornados", and "wildfire".

Less than a third of respondents want additional information about the other hazards. A significant number of respondents (21%) did not select any answer, indicating they do not want any additional information.



SURVEY QUESTIONS

Below is the exact wording of the seven questions asked in the survey.

1. Where do you live? *(Please check one answer only.)*

- In Douglas
- In Rolling Hills
- In Glenrock
- In Lost Springs
- In Converse County not in a town or city

2. Which of the following steps has your household taken to prepare for a natural hazard event? *(Please check all that apply.)*

- Received first aid/CPR training
- Made a fire escape plan
- Designated a meeting place
- Identified utility shutoffs
- Received Community Emergency Response Training
- Prepared a disaster supply kit
- Purchased flood insurance
- Stored food and water
- Stored flashlights and batteries
- Stored a battery-powered radio
- Stored a fire extinguisher
- Stored medical supplies (first aid kit, medications)
- Other: _____

3. How confident are you that your household would know what to do in a natural or manmade hazard event? *(Please check one answer only.)*

- Not at all confident
- Somewhat confident
- Very confident

4. How concerned are you about the following hazards to your home, business, and neighborhood? Please indicate whether you are NOT concerned, SOMEWHAT concerned, or VERY concerned.

(Please circle one answer for each hazard or leave it blank if you don't know.)

- | | | | |
|-----------------------------------|-----|----------|------|
| ▶ Dam failure | Not | Somewhat | Very |
| ▶ Drought | Not | Somewhat | Very |
| ▶ Earthquake | Not | Somewhat | Very |
| ▶ Flood | Not | Somewhat | Very |
| ▶ Hail | Not | Somewhat | Very |
| ▶ Hazardous materials spill | Not | Somewhat | Very |
| ▶ Land subsidence | Not | Somewhat | Very |
| ▶ Landslide | Not | Somewhat | Very |
| ▶ Severe winter storm | Not | Somewhat | Very |
| ▶ Tornado | Not | Somewhat | Very |
| ▶ Wind storm | Not | Somewhat | Very |
| ▶ Wildfire | Not | Somewhat | Very |
| ▶ Other: _____ | Not | Somewhat | Very |

5. Which of the following methods would help you receive information during a disaster? (Check all that apply.)

- | | |
|--|--|
| <input type="checkbox"/> Television | <input type="checkbox"/> Facebook posting |
| <input type="checkbox"/> Radio | <input type="checkbox"/> Twitter feeds |
| <input type="checkbox"/> Amateur radio | <input type="checkbox"/> Newspaper |
| <input type="checkbox"/> Telephone or cell phone | <input type="checkbox"/> Email notice |
| <input type="checkbox"/> Siren system | <input type="checkbox"/> Directly from police/fire personnel |
| <input type="checkbox"/> At your workplace | <input type="checkbox"/> By word of mouth |
| <input type="checkbox"/> Internet | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Reverse 911 (Code Red) | |

6. A number of activities can reduce our risk from natural hazards. In general, these activities fall into one of the following six broad categories. Please tell us how important you think each one is for your community or the county to consider pursuing. (Please check one answer for each or leave it blank if you don't know.)

	<u>Very Important</u>	<u>Somewhat Important</u>	<u>Not Important</u>
▶ <u>Prevention</u> : Actions to influence land and building development. Examples include planning and zoning, building codes, and floodplain regulations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▶ <u>Property Protection</u> : Actions involving existing buildings to reduce hazard risk. Examples include acquisition, relocation, elevation, and structural retrofits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▶ <u>Natural Resource Protection</u> : Examples include floodplain protection, slope stabilization, and forest management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▶ <u>Structural Projects</u> : Examples include dams, levees, detention/retention basins, channel modification, retaining walls, and storm sewers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▶ <u>Emergency Services</u> : Examples include warning systems, evacuation planning, emergency response training, and protection of critical emergency facilities or systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▶ <u>Public Education and Awareness</u> : Actions to inform citizens about hazards and techniques they can use to protect themselves and their property.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Which of the following types of hazards would you like to have more information about? (Please check all that apply.)

- | | |
|--|--|
| <input type="checkbox"/> Dam failure | <input type="checkbox"/> Landslide |
| <input type="checkbox"/> Drought | <input type="checkbox"/> Severe winter storm |
| <input type="checkbox"/> Earthquake | <input type="checkbox"/> Tornado |
| <input type="checkbox"/> Flood | <input type="checkbox"/> Wind storm |
| <input type="checkbox"/> Hail | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Hazardous materials spill | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Land subsidence | |