

## Appendix A: Plan Adoption

This appendix to the Eno-Haw Regional Hazard Mitigation Plan includes copies of the local resolutions passed by each participating jurisdiction requesting approval of the Plan. The jurisdictions are listed below in the order that the plan adoption resolutions are included in this appendix.

- **Alamance County**
- Village of Alamance
- City of Burlington
- Town of Elon
- City of Graham
- Town of Green Level
- Town of Haw River
- City of Mebane
- Town of Ossipee
- Town of Swepsonville
- **Orange County**
- Town of Carrboro
- Town of Chapel Hill
- Town of Hillsborough
- **Durham County**
- City of Durham

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## **Appendix B: *Local Mitigation Plan Review Tool***

This appendix to the Eno-Haw Regional Hazard Mitigation Plan contains a copy of a completed *Local Mitigation Plan Review Tool*. This checklist provides page numbers indicating where in the Plan each element required by FEMA is met. This serves as a final internal review to confirm that the Plan meets Federal requirements.

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## LOCAL MITIGATION PLAN REVIEW TOOL

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The *Local Mitigation Plan Review Tool* demonstrates how the Local Mitigation Plan meets the regulation in 44 CFR §201.6 and offers States and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The Regulation Checklist provides a summary of FEMA’s evaluation of whether the Plan has addressed all requirements.
- The Plan Assessment identifies the plan’s strengths as well as documents areas for future improvement.
- The Multi-jurisdiction Summary Sheet is an optional worksheet that can be used to document how each jurisdiction met the requirements of the each Element of the Plan (Planning Process; Hazard Identification and Risk Assessment; Mitigation Strategy; Plan Review, Evaluation, and Implementation; and Plan Adoption).

The FEMA Mitigation Planner must reference this *Local Mitigation Plan Review Guide* when completing the *Local Mitigation Plan Review Tool*.

<b>Jurisdictions: Alamance, Orange, and Durham Counties and incorporated municipalities</b>	<b>Title of Plan: Eno-Haw Regional Hazard Mitigation Plan</b>	<b>Date of Plan: April 2015</b>
<b>Local Point of Contact: Kirby Saunders</b>	<b>Address: 510 Meadowlands Drive PO Box 8181 Hillsborough, NC 27278</b>	
<b>Title: Orange County Emergency Management Coordinator</b>		
<b>Agency: Orange County Emergency Services</b>		
<b>Phone Number: (919) 245-6135</b>	<b>E-Mail: <a href="mailto:ksaunders@orangecountync.gov">ksaunders@orangecountync.gov</a></b>	

<b>State Reviewer:</b>	<b>Title:</b>	<b>Date:</b>

<b>FEMA Reviewer:</b>	<b>Title:</b>	<b>Date:</b>
<b>Date Received in FEMA Region (insert #)</b>		
<b>Plan Not Approved</b>		
<b>Plan Approvable Pending Adoption</b>		
<b>Plan Approved</b>		

**SECTION 1:  
REGULATION CHECKLIST**

**INSTRUCTIONS:** The Regulation Checklist must be completed by FEMA. The purpose of the Checklist is to identify the location of relevant or applicable content in the Plan by Element/sub-element and to determine if each requirement has been ‘Met’ or ‘Not Met.’ The ‘Required Revisions’ summary at the bottom of each Element must be completed by FEMA to provide a clear explanation of the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is ‘Not Met.’ Sub-elements should be referenced in each summary by using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each Element and sub-element are described in detail in this *Plan Review Guide* in Section 4, Regulation Checklist.

<b>1. REGULATION CHECKLIST</b>		<b>Location in Plan</b> (section and/or page number)	<b>Met</b>	<b>Not Met</b>
<b>Regulation (44 CFR 201.6 Local Mitigation Plans)</b>				
<b>ELEMENT A. PLANNING PROCESS</b>				
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	Section 2: Planning Process			
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	Section 2 throughout and specifically Sections 2.6 and 2.7.			
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	Section 2.6			
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))	Sections 2.2 and 2.3			
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))	Section 8.3			
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	Section 8: Plan Maintenance Procedures			
<b>ELEMENT A: REQUIRED REVISIONS</b>				

<b>1. REGULATION CHECKLIST</b>		<b>Location in Plan</b> (section and/or page number)	<b>Met</b>	<b>Not Met</b>
<b>Regulation (44 CFR 201.6 Local Mitigation Plans)</b>				
<b>ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT</b>				
B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	Section 4: Risk Assessment, specifically Section 4.5			
B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	Section 4.5			
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	Sections 4.5 and 4.6			
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))	Section 4.5			
<b><u>ELEMENT B: REQUIRED REVISIONS</u></b>				
<b>ELEMENT C. MITIGATION STRATEGY</b>				
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	Section 5: Capability Assessment			
C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))	Section 5, specifically Sections 5.3.1 and 5.3.1.3			
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))	Section 6: Mitigation Strategy			
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	Section 7: Mitigation Action Plans			
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	Section 7: Mitigation Action Plans			
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	Section 8.1			
<b><u>ELEMENT C: REQUIRED REVISIONS</u></b>				

<b>1. REGULATION CHECKLIST</b>		<b>Location in Plan</b> (section and/or page number)	<b>Met</b>	<b>Not Met</b>
<b>Regulation (44 CFR 201.6 Local Mitigation Plans)</b>				
<b>ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION</b> (applicable to plan updates only)				
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	Section 4: Risk Assessment (as described in Section 4, specifically in Section 4.2, the latest GIS data available was used to determine vulnerabilities to existing development beyond what was addressed in previous plan updates)			
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	Section 7 (the Mitigation Action Plan for each jurisdiction includes an update on previously adopted actions)			
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	Section 7 (the Mitigation Action Plan for each jurisdiction includes an update on previously adopted actions, including changes in priorities)			
<b><u>ELEMENT D: REQUIRED REVISIONS</u></b>				
<b>ELEMENT E. PLAN ADOPTION</b>				
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	This will be included in Appendix A			
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	This will be included in Appendix A			
<b><u>ELEMENT E: REQUIRED REVISIONS</u></b>				

**1. REGULATION CHECKLIST**

Regulation (44 CFR 201.6 Local Mitigation Plans)

Location in Plan  
(section and/or  
page number)Met Not  
Met**ELEMENT F. ADDITIONAL STATE REQUIREMENTS (OPTIONAL FOR STATE REVIEWERS ONLY;  
NOT TO BE COMPLETED BY FEMA)**

F1.			
F2.			

**ELEMENT F: REQUIRED REVISIONS**

## SECTION 2: PLAN ASSESSMENT

**INSTRUCTIONS:** The purpose of the Plan Assessment is to offer the local community more comprehensive feedback to the community on the quality and utility of the plan in a narrative format. The audience for the Plan Assessment is not only the plan developer/local community planner, but also elected officials, local departments and agencies, and others involved in implementing the Local Mitigation Plan. The Plan Assessment must be completed by FEMA. The Assessment is an opportunity for FEMA to provide feedback and information to the community on: 1) suggested improvements to the Plan; 2) specific sections in the Plan where the community has gone above and beyond minimum requirements; 3) recommendations for plan implementation; and 4) ongoing partnership(s) and information on other FEMA programs, specifically RiskMAP and Hazard Mitigation Assistance programs. The Plan Assessment is divided into two sections:

1. Plan Strengths and Opportunities for Improvement
2. Resources for Implementing Your Approved Plan

***Plan Strengths and Opportunities for Improvement*** is organized according to the plan Elements listed in the Regulation Checklist. Each Element includes a series of italicized bulleted items that are suggested topics for consideration while evaluating plans, but it is not intended to be a comprehensive list. FEMA Mitigation Planners are not required to answer each bullet item, and should use them as a guide to paraphrase their own written assessment (2-3 sentences) of each Element.

The Plan Assessment must not reiterate the required revisions from the Regulation Checklist or be regulatory in nature, and should be open-ended and to provide the community with suggestions for improvements or recommended revisions. The recommended revisions are suggestions for improvement and are not required to be made for the Plan to meet Federal regulatory requirements. The italicized text should be deleted once FEMA has added comments regarding strengths of the plan and potential improvements for future plan revisions. It is recommended that the Plan Assessment be a short synopsis of the overall strengths and weaknesses of the Plan (no longer than two pages), rather than a complete recap section by section.

***Resources for Implementing Your Approved Plan*** provides a place for FEMA to offer information, data sources and general suggestions on the overall plan implementation and maintenance process. Information on other possible sources of assistance including, but not limited to, existing publications, grant funding or training opportunities, can be provided. States may add state and local resources, if available.

## **A. Plan Strengths and Opportunities for Improvement**

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

### **Element A: Planning Process**

*How does the Plan go above and beyond minimum requirements to document the planning process with respect to:*

- *Involvement of stakeholders (elected officials/decision makers, plan implementers, business owners, academic institutions, utility companies, water/sanitation districts, etc.);*
- *Involvement of Planning, Emergency Management, Public Works Departments or other planning agencies (i.e., regional planning councils);*
- *Diverse methods of participation (meetings, surveys, online, etc.); and*
- *Reflective of an open and inclusive public involvement process.*

### **Element B: Hazard Identification and Risk Assessment**

*In addition to the requirements listed in the Regulation Checklist, 44 CFR 201.6 Local Mitigation Plans identifies additional elements that should be included as part of a plan's risk assessment. The plan should describe vulnerability in terms of:*

- 1) *A general description of land uses and future development trends within the community so that mitigation options can be considered in future land use decisions;*
- 2) *The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas; and*
- 3) *A description of potential dollar losses to vulnerable structures, and a description of the methodology used to prepare the estimate.*

*How does the Plan go above and beyond minimum requirements to document the Hazard Identification and Risk Assessment with respect to:*

- *Use of best available data (flood maps, HAZUS, flood studies) to describe significant hazards;*
- *Communication of risk on people, property, and infrastructure to the public (through tables, charts, maps, photos, etc.);*
- *Incorporation of techniques and methodologies to estimate dollar losses to vulnerable structures;*
- *Incorporation of Risk MAP products (i.e., depth grids, Flood Risk Report, Changes Since Last FIRM, Areas of Mitigation Interest, etc.); and*
- *Identification of any data gaps that can be filled as new data became available.*

### **Element C: Mitigation Strategy**

*How does the Plan go above and beyond minimum requirements to document the Mitigation Strategy with respect to:*

- *Key problems identified in, and linkages to, the vulnerability assessment;*
- *Serving as a blueprint for reducing potential losses identified in the Hazard Identification and Risk Assessment;*
- *Plan content flow from the risk assessment (problem identification) to goal setting to mitigation action development;*
- *An understanding of mitigation principles (diversity of actions that include structural projects, preventative measures, outreach activities, property protection measures, post-disaster actions, etc);*
- *Specific mitigation actions for each participating jurisdictions that reflects their unique risks and capabilities;*
- *Integration of mitigation actions with existing local authorities, policies, programs, and resources; and*
- *Discussion of existing programs (including the NFIP), plans, and policies that could be used to implement mitigation, as well as document past projects.*

### **Element D: Plan Update, Evaluation, and Implementation (Plan Updates Only)**

*How does the Plan go above and beyond minimum requirements to document the 5-year Evaluation and Implementation measures with respect to:*

- *Status of previously recommended mitigation actions;*
- *Identification of barriers or obstacles to successful implementation or completion of mitigation actions, along with possible solutions for overcoming risk;*
- *Documentation of annual reviews and committee involvement;*
- *Identification of a lead person to take ownership of, and champion the Plan;*
- *Reducing risks from natural hazards and serving as a guide for decisions makers as they commit resources to reducing the effects of natural hazards;*
- *An approach to evaluating future conditions (i.e. socio-economic, environmental, demographic, change in built environment etc.);*
- *Discussion of how changing conditions and opportunities could impact community resilience in the long term; and*
- *Discussion of how the mitigation goals and actions support the long-term community vision for increased resilience.*

## **B. Resources for Implementing Your Approved Plan**

*Ideas may be offered on moving the mitigation plan forward and continuing the relationship with key mitigation stakeholders such as the following:*

- *What FEMA assistance (funding) programs are available (for example, Hazard Mitigation Assistance (HMA)) to the jurisdiction(s) to assist with implementing the mitigation actions?*
- *What other Federal programs (National Flood Insurance Program (NFIP), Community Rating System (CRS), Risk MAP, etc.) may provide assistance for mitigation activities?*
- *What publications, technical guidance or other resources are available to the jurisdiction(s) relevant to the identified mitigation actions?*
- *Are there upcoming trainings/workshops (Benefit-Cost Analysis (BCA), HMA, etc.) to assist the jurisdictions(s)?*
- *What mitigation actions can be funded by other Federal agencies (for example, U.S. Forest Service, National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA) Smart Growth, Housing and Urban Development (HUD) Sustainable Communities, etc.) and/or state and local agencies?*

**SECTION 3:**  
**MULTI-JURISDICTION SUMMARY SHEET (OPTIONAL)**

**INSTRUCTIONS:** For multi-jurisdictional plans, a Multi-jurisdiction Summary Spreadsheet may be completed by listing each participating jurisdiction, which required Elements for each jurisdiction were ‘Met’ or ‘Not Met,’ and when the adoption resolutions were received. This Summary Sheet does not imply that a mini-plan be developed for each jurisdiction; it should be used as an optional worksheet to ensure that each jurisdiction participating in the Plan has been documented and has met the requirements for those Elements (A through E).

MULTI-JURISDICTION SUMMARY SHEET												
#	Jurisdiction Name	Jurisdiction Type (city/borough/township/village, etc.)	Plan POC	Mailing Address	Email	Phone	Requirements Met (Y/N)					
							A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption	F. State Requirements
1	Alamance	County	Alva Sizemore		alva.sizemore@alamance-nc.com	336-227-1365						
2	Alamance	Village	Ben York		villagealamance@bellsouth.net	336-226-0033						
3	Burlington	City	Roger Manuel		rmanuel@ci.burlington.nc.us	336-516-4674						

**MULTI-JURISDICTION SUMMARY SHEET**

#	Jurisdiction Name	Jurisdiction Type (city/borough/ township/ village, etc.)	Plan POC	Mailing Address	Email	Phone	Requirements Met (Y/N)					
							A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption	F. State Require- ments
4	Elon	Town	Sean Tencer		stencer@ci.elon.nc.us	336-584-2859						
5	Graham	City	Melissa Guilbeau		mguilbeau@cityofgraham.com	336-570-6705						
6	Green Level	Town	Quentin McPhatter			336-578-3443						
7	Haw River	Town	Jeff Earp		jearp@townofhawriver.com	336-578-0010						
8	Mebane	City	David Cheek		dcheek@cityofmebane.com	336-584-0526						
9	Ossipee	Town	Richard Overman		rovermanosipee@bellsouth.net	336-584-8555						
10	Swepsonville	Town	Raymond Herring			336-578-1500						

**MULTI-JURISDICTION SUMMARY SHEET**

#	Jurisdiction Name	Jurisdiction Type (city/borough/ township/ village, etc.)	Plan POC	Mailing Address	Email	Phone	Requirements Met (Y/N)					
							A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption	F. State Require- ments
11	Orange	County (Lead)	Josh Hollingsworth		jhollingsworth@orangecounty.nc.gov	919-245-6100						
12	Carrboro	Town	Travis Crabtree		tcrabtree@townofcarrboro.org	919-918-7327						
13	Chapel Hill	Town	Matt Sullivan		MSULLIVAN@townofchapelhill.org	919-968-2814						
14	Hillsborough	Town	Jerry Wagner		Jerry.Wagner@hillsboroughnc.org	919-241-4801						
15	Durham	County	Mark Schell		mschell@dcov.gov	919-560-0663						
16	Durham	City	Mark Schell		mschell@dcov.gov	919-560-0663						



## **Appendix C: Public Outreach Strategy**

This appendix to the Eno-Haw Regional Hazard Mitigation Plan contains a copy of the Public Outreach Strategy finalized on September 15, 2014 to guide the public outreach element of the mitigation planning process.

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# **Eno-Haw Regional Hazard Mitigation Plan**

## **Public Outreach Strategy**

### **September 15, 2014**

#### **Project Summary**

The counties of Alamance, Durham, and Orange, in coordination with their participating municipal jurisdictions, are preparing a regional hazard mitigation plan that will cover the three-county “Eno-Haw” area. The Eno-Haw Regional Hazard Mitigation Plan will identify local policies and actions for reducing risk and future losses from natural hazards such as floods, severe storms, wildfires, and winter weather. It will build upon the separate hazard mitigation plans that were initially prepared by each county in coordination with their municipalities, as well as the Town of Chapel Hill’s own stand-alone plan.

The plan will also serve to meet key federal planning regulations which require local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for hazard mitigation projects. These mitigation planning requirements stem from the Disaster Mitigation Act of 2000, which was passed by the U.S. Congress in October of 2000. This Act amended federal law to require that all states and local governments must have hazard mitigation plans in place in order to be eligible to apply for funding under such programs as the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation (PDM) program.

#### **Public Outreach**

A key element in the mitigation planning process is the discussion it promotes among community members about creating a safer, more disaster-resilient community. A plan that accurately reflects the community’s values and priorities is likely to have greater legitimacy and “buy-in” and greater success in implementing mitigation actions and projects to reduce risk.<sup>1</sup> Therefore, the purpose of the Eno-Haw Regional Hazard Mitigation Plan Public Outreach Strategy is to:

- Generate public interest;
- Solicit citizen input; and
- Engage additional partners in the planning process.

The following specific public outreach opportunities and methods have been identified for citizens and targeted stakeholders to participate at various points in the mitigation planning process, and are presented in more detail on the following pages:

1. In-person public meetings (2)
2. Public information website (including social media integration, where possible)
3. Project information fact sheet
4. Planning resources
5. Public participation survey

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<sup>1</sup> FEMA, *Local Mitigation Planning Handbook*, March 2013.

OUTREACH METHOD 1
<b>In-Person Public Meetings (2)</b>
<b>AVAILABILITY</b>
December 4, 2014 and April 30, 2015.
<b>BRIEF DESCRIPTION</b>
Two public meetings will be scheduled at key points in the project timeline, one following completion of the draft risk and capability assessments and one following completion of the draft plan (and prior to the plan's local adoption). These meetings will be coordinated and arranged by Orange County with facilitation support from AECOM.
<b>DETAILS</b>
For both public meetings: <ul style="list-style-type: none"> <li>• The purpose will be to inform the public on the process and current status of the regional planning process, as well as gain input to the process during the drafting stage and prior to plan completion and approval</li> <li>• AECOM will prepare presentation and handout materials to help facilitate two-way communication with public meeting attendees</li> </ul>
<b>LEAD AGENCY</b>
Orange County/AECOM

OUTREACH METHOD 2
<b>Public Information Website (including Social Media Integration)</b>
<b>AVAILABILITY</b>
Throughout the planning cycle.
<b>BRIEF DESCRIPTION</b>
A project information website will be hosted by Orange County Emergency Services and will be available to the general public and to members of the Hazard Mitigation Planning Team for the duration of the project at the following web address: <a href="http://www.co.orange.nc.us/emergency/Eno-HawRHMP.asp">http://www.co.orange.nc.us/emergency/Eno-HawRHMP.asp</a> . The primary purpose of this site will be to share information relevant to the 2015 Eno-Haw Regional Hazard Mitigation Plan planning process.
<b>DETAILS</b>
Specific resources to be included on this site include: <ul style="list-style-type: none"> <li>• Project information fact sheet</li> <li>• Drafts of Eno-Haw Regional Hazard Mitigation Plan sections</li> <li>• List of Eno-Haw Local Jurisdiction Leads</li> <li>• List of project tasks and subtasks with schedule</li> <li>• PowerPoint files from Hazard Mitigation Planning Team meetings</li> <li>• PDFs of existing local hazard mitigation plans for reference during the plan update process</li> <li>• Links to planning resources, including recently published FEMA hazard mitigation planning guidance</li> <li>• Social media integration including, but not limited to, Facebook, Twitter, Tumblr, Pinterest, and others</li> </ul>
<b>LEAD AGENCY</b>
Orange County

<b>OUTREACH METHOD 3</b>	
<b>Project Information Fact Sheet</b>	
<b>AVAILABILITY</b>	
September 15, 2014	
<b>BRIEF DESCRIPTION</b>	
A 1-page (double-sided) project information fact sheet will be available online in PDF format for the duration of the project. The primary purpose of this document will be to provide information on the regional planning process and to provide project contact information and links for interested parties to engage in the planning effort. This resource will be available on the project information website described above in Outreach Method 3. Printed copies may be made available on an as-needed basis.	
<b>DETAILS</b>	
Specific information to be provided in this fact sheet includes: <ul style="list-style-type: none"> <li>• Project overview</li> <li>• Overview of the regional hazard mitigation planning process, including: <ul style="list-style-type: none"> <li>○ Public outreach</li> <li>○ Risk assessment</li> <li>○ Capability assessment</li> <li>○ Mitigation strategy development</li> <li>○ Plan maintenance</li> <li>○ Plan adoption</li> </ul> </li> <li>• Explanation of project leadership</li> <li>• Project schedule</li> <li>• Contact information and links to project information website</li> <li>• Project graphics/illustrations</li> </ul>	
<b>LEAD AGENCY</b>	
Orange County/AECOM	

<b>OUTREACH METHOD 4</b>	
<b>Planning Resources</b>	
<b>AVAILABILITY</b>	
September 15, 2014	
<b>BRIEF DESCRIPTION</b>	
Mitigation planning resources will be made available for Hazard Mitigation Planning Team members and other interested parties in order to promote education and participation in the mitigation planning process.	
<b>DETAILS</b>	
Specific planning resources will include: <ul style="list-style-type: none"> <li>• FEMA mitigation planning guidance <ul style="list-style-type: none"> <li>○ <i>Local Mitigation Planning Handbook</i></li> <li>○ <i>Mitigation Ideas</i></li> <li>○ <i>Integrating Hazard Mitigation Into Local Planning</i></li> </ul> </li> <li>• Other appropriate planning resources as identified throughout the duration of the planning process</li> </ul>	
<b>LEAD AGENCY</b>	
Orange County/AECOM	

<b>OUTREACH METHOD 5</b>
<b>Public Participation Survey</b>
<b>AVAILABILITY</b>
September 30, 2014 through December 31, 2014
<b>BRIEF DESCRIPTION</b>
An online public participation survey will be hosted by AECOM using the SurveyMonkey web hosting service and will be open to the public for a duration of three months. The primary purpose of this survey will be to solicit input from any interested parties in the planning area and will be used so that individuals throughout the planning area have the opportunity to provide valuable information and feedback to the project team. The online survey will give individuals that are unable to attend the in-person meetings the opportunity to participate in the plan update process. Information from the online survey will allow the project team to better understand the types of hazards that most concern the public and the mitigation actions that are of particular interest. The survey will be made accessible through hyperlinks posted on the project information website and can be circulated via email, Facebook, etc. Additionally, hard copies of the survey will be distributed at the in-person public meetings. The feedback received will be evaluated and incorporated into the Hazard Mitigation Planning Team’s decision making process and the final plan.
<b>DETAILS</b>
Types of specific questions to be asked as part of this survey include: <ul style="list-style-type: none"> <li>• Personal history with natural hazards</li> <li>• Natural hazard concerns</li> <li>• Perception of vulnerable community assets</li> <li>• Importance of community assets</li> <li>• Priorities concerning natural hazard preparedness</li> <li>• Steps local government can take to reduce natural hazard risk</li> <li>• Types of mitigation activities deemed important</li> <li>• Personal interest in natural hazard mitigation</li> <li>• Effective ways to communicate with residents</li> <li>• Location in the floodplain</li> <li>• Questions regarding flood insurance</li> <li>• Personal actions to mitigate property</li> <li>• Mitigation activities planned for the respondent’s household</li> <li>• Location within the planning area</li> <li>• Age (optional)*</li> <li>• Gender (optional)*</li> <li>• Highest level of education (optional)*</li> <li>• Length of time living in the planning area</li> <li>• Ownership of property versus rental status</li> <li>• Type of dwelling</li> <li>• Open comments**</li> </ul> <p><i>* All information will be kept strictly confidential</i>  <i>** Information will be processed and summarized by AECOM in order to produce summary statistics and summary responses</i></p>
<b>LEAD AGENCY</b>
Orange County/AECOM

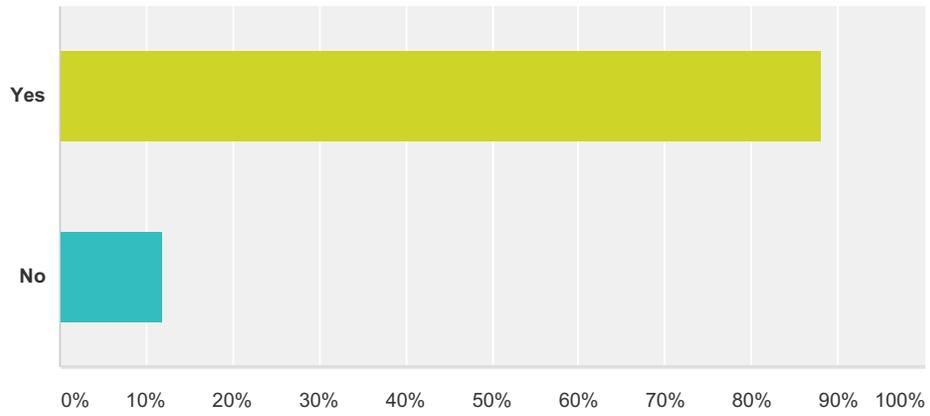
## **Appendix D: Public Participation Survey**

This appendix to the Eno-Haw Regional Hazard Mitigation Plan contains a summary of the results obtained through the public participation survey offered from September 30 through December 31, 2014. The survey was conducted online through SurveyMonkey, an online survey software provider, and was also made available in print form at public meetings and at other locations throughout the planning area. No written responses were submitted.

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### Q1 Have you ever experienced or been impacted by a disaster?

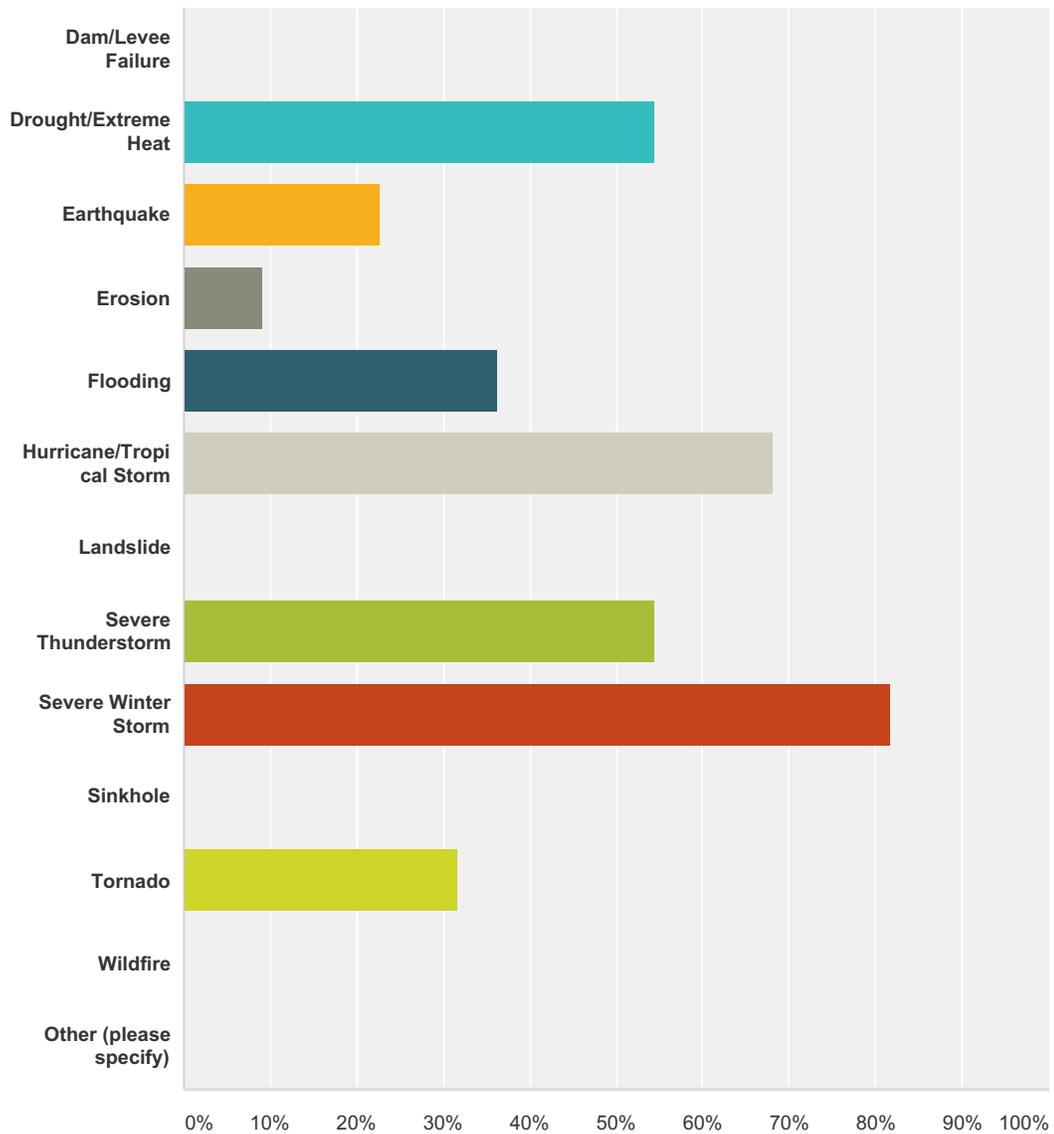
Answered: 25 Skipped: 0



Answer Choices	Responses
Yes	88.00% 22
No	12.00% 3
<b>Total</b>	<b>25</b>

**Q2 If yes, which of these natural hazards have you experienced or been impacted by? (Check all that apply.)**

Answered: 22 Skipped: 3



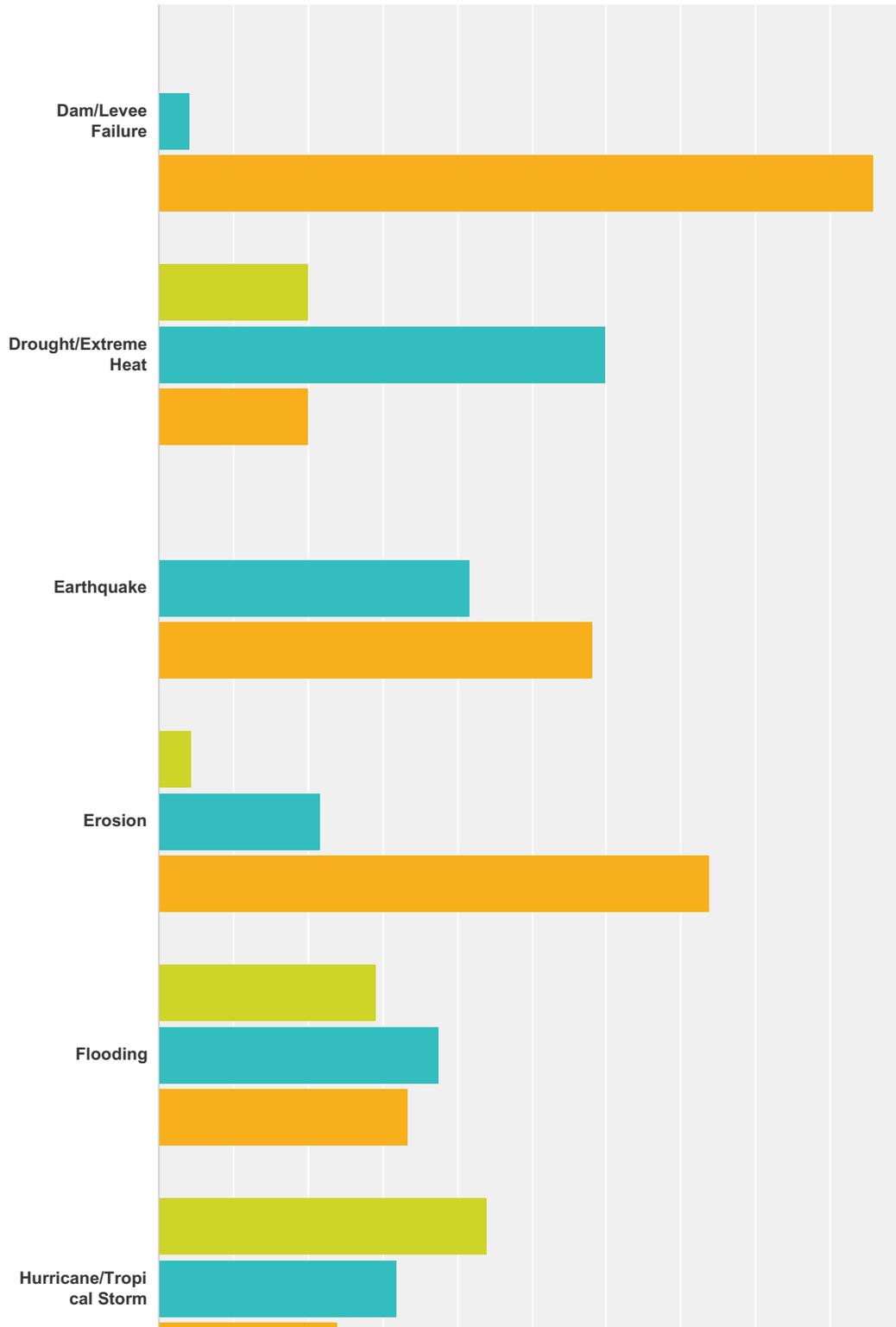
Answer Choices	Responses
Dam/Levee Failure	0.00% 0
Drought/Extreme Heat	54.55% 12
Earthquake	22.73% 5
Erosion	9.09% 2
Flooding	36.36% 8
Hurricane/Tropical Storm	68.18% 15

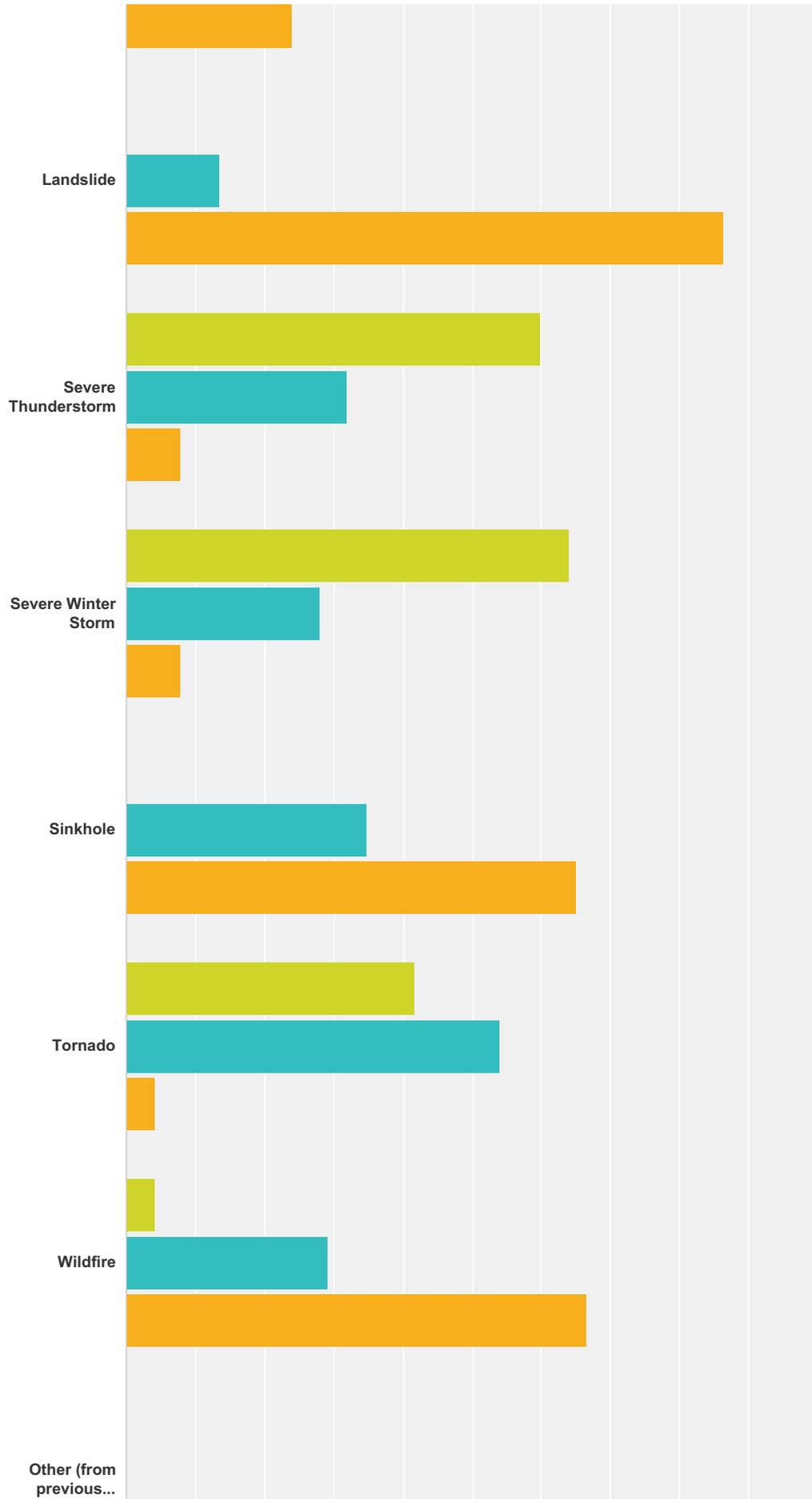
Landslide	0.00%	0
Severe Thunderstorm	54.55%	12
Severe Winter Storm	81.82%	18
Sinkhole	0.00%	0
Tornado	31.82%	7
Wildfire	0.00%	0
Other (please specify)	0.00%	0
<b>Total Respondents: 22</b>		

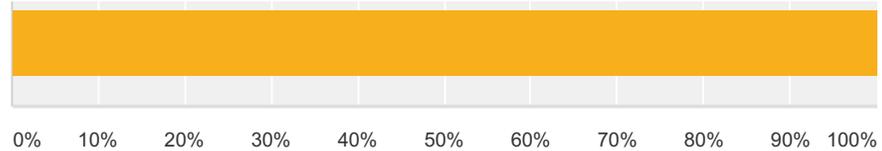
#	Other (please specify)	Date
	There are no responses.	

**Q3 How concerned are you about the possibility of your community being impacted by each of these natural hazards? (Check the corresponding circle for each natural hazard.)**

Answered: 25 Skipped: 0





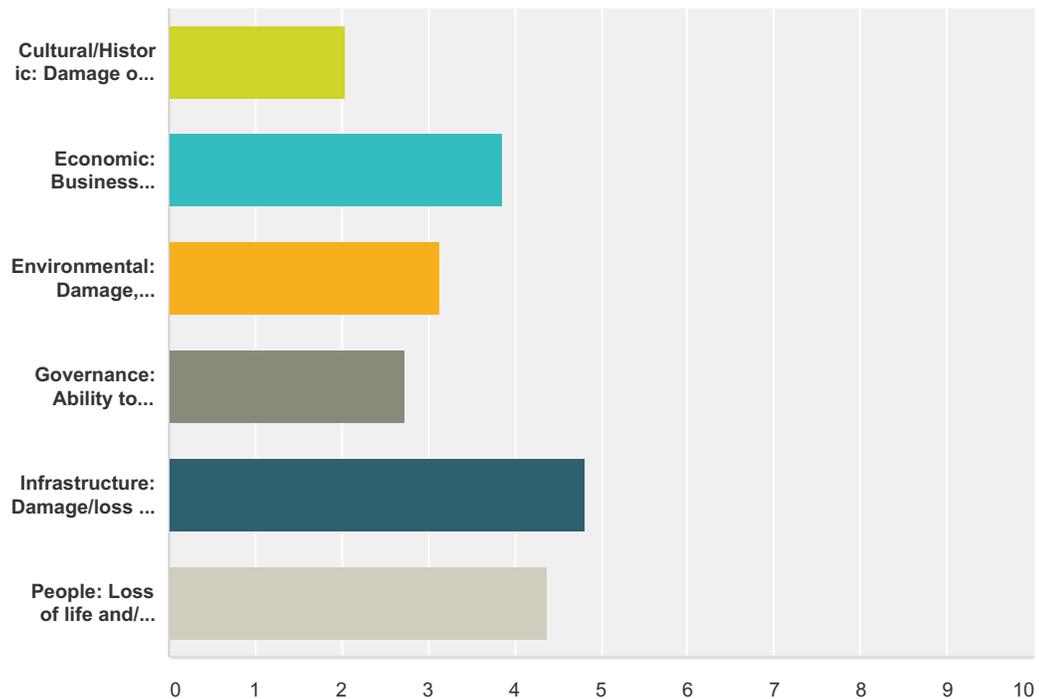


■ Very Concerned    
 ■ Somewhat Concerned    
 ■ Not Concerned

	Very Concerned	Somewhat Concerned	Not Concerned	Total
Dam/Levee Failure	0.00% 0	4.17% 1	95.83% 23	24
Drought/Extreme Heat	20.00% 5	60.00% 15	20.00% 5	25
Earthquake	0.00% 0	41.67% 10	58.33% 14	24
Erosion	4.35% 1	21.74% 5	73.91% 17	23
Flooding	29.17% 7	37.50% 9	33.33% 8	24
Hurricane/Tropical Storm	44.00% 11	32.00% 8	24.00% 6	25
Landslide	0.00% 0	13.64% 3	86.36% 19	22
Severe Thunderstorm	60.00% 15	32.00% 8	8.00% 2	25
Severe Winter Storm	64.00% 16	28.00% 7	8.00% 2	25
Sinkhole	0.00% 0	34.78% 8	65.22% 15	23
Tornado	41.67% 10	54.17% 13	4.17% 1	24
Wildfire	4.17% 1	29.17% 7	66.67% 16	24
Other (from previous question)	0.00% 0	0.00% 0	100.00% 10	10

**Q4 In your opinion, which of the following categories are most susceptible to natural hazards in your community? (Rank the community assets in order of vulnerability, 1 being most vulnerable and 6 being least vulnerable.) Please note, the list will automatically re-order itself as you make your selections. You can also drag and drop the items on the list to reorder them.**

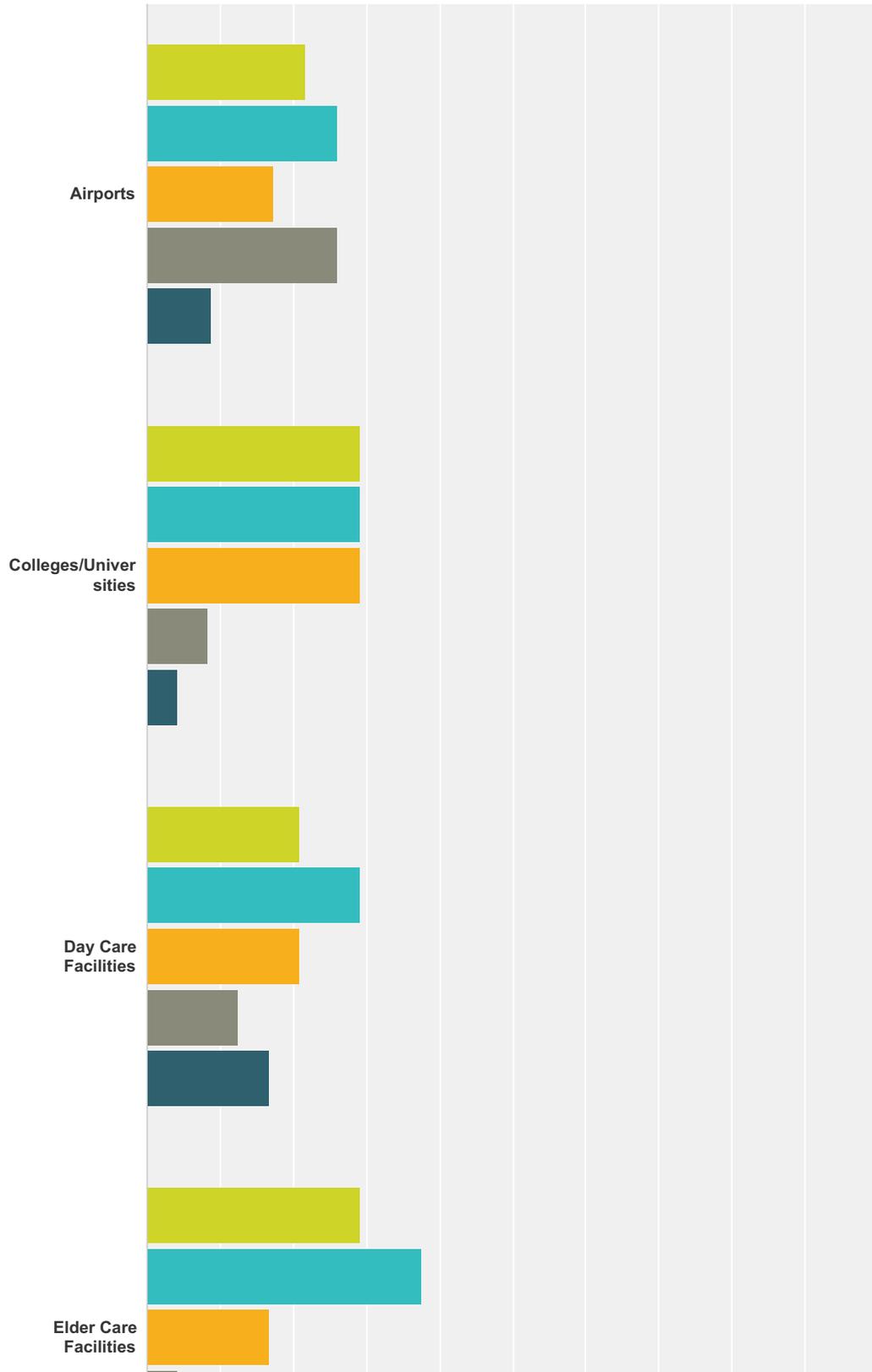
Answered: 23 Skipped: 2

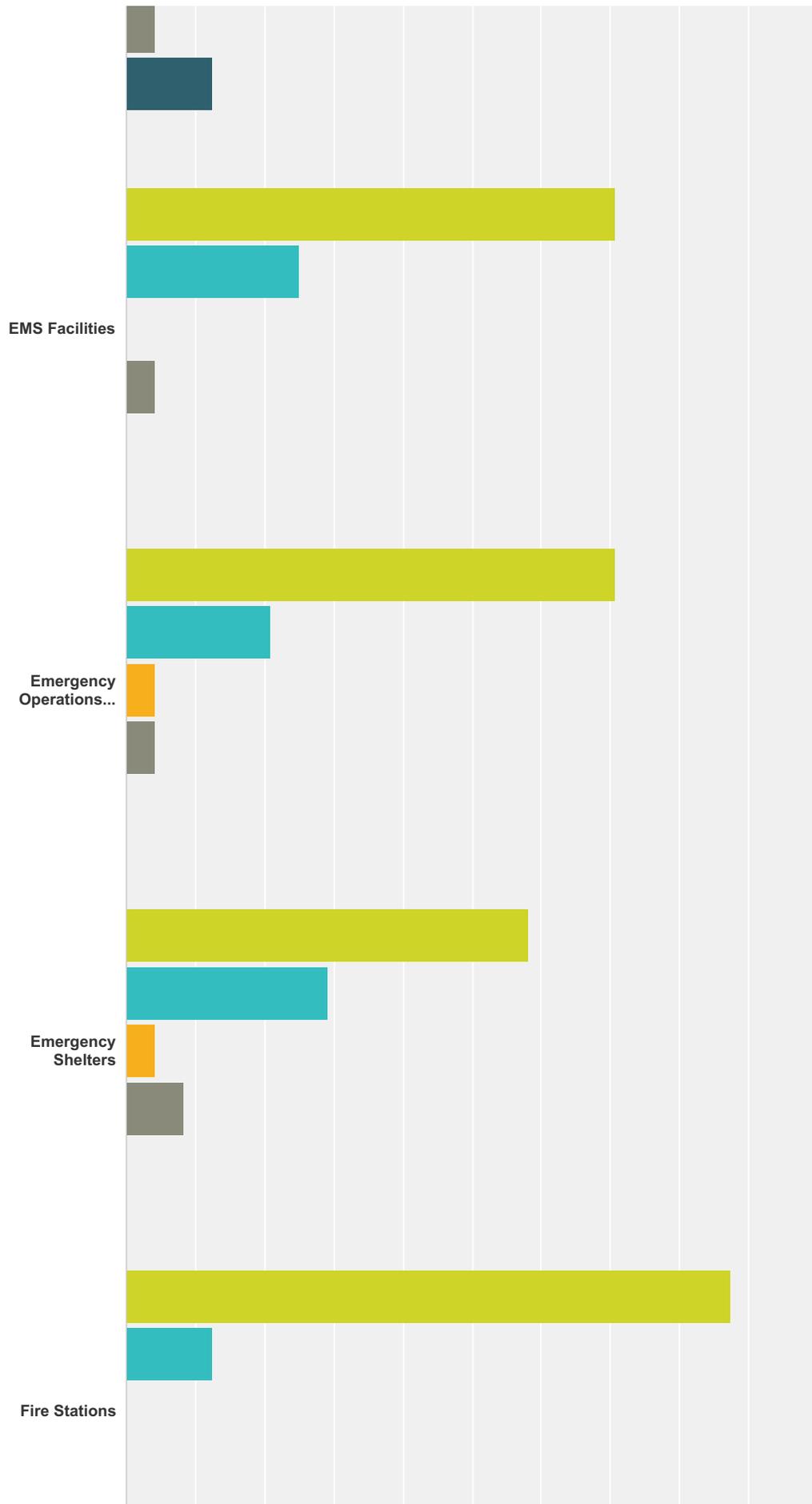


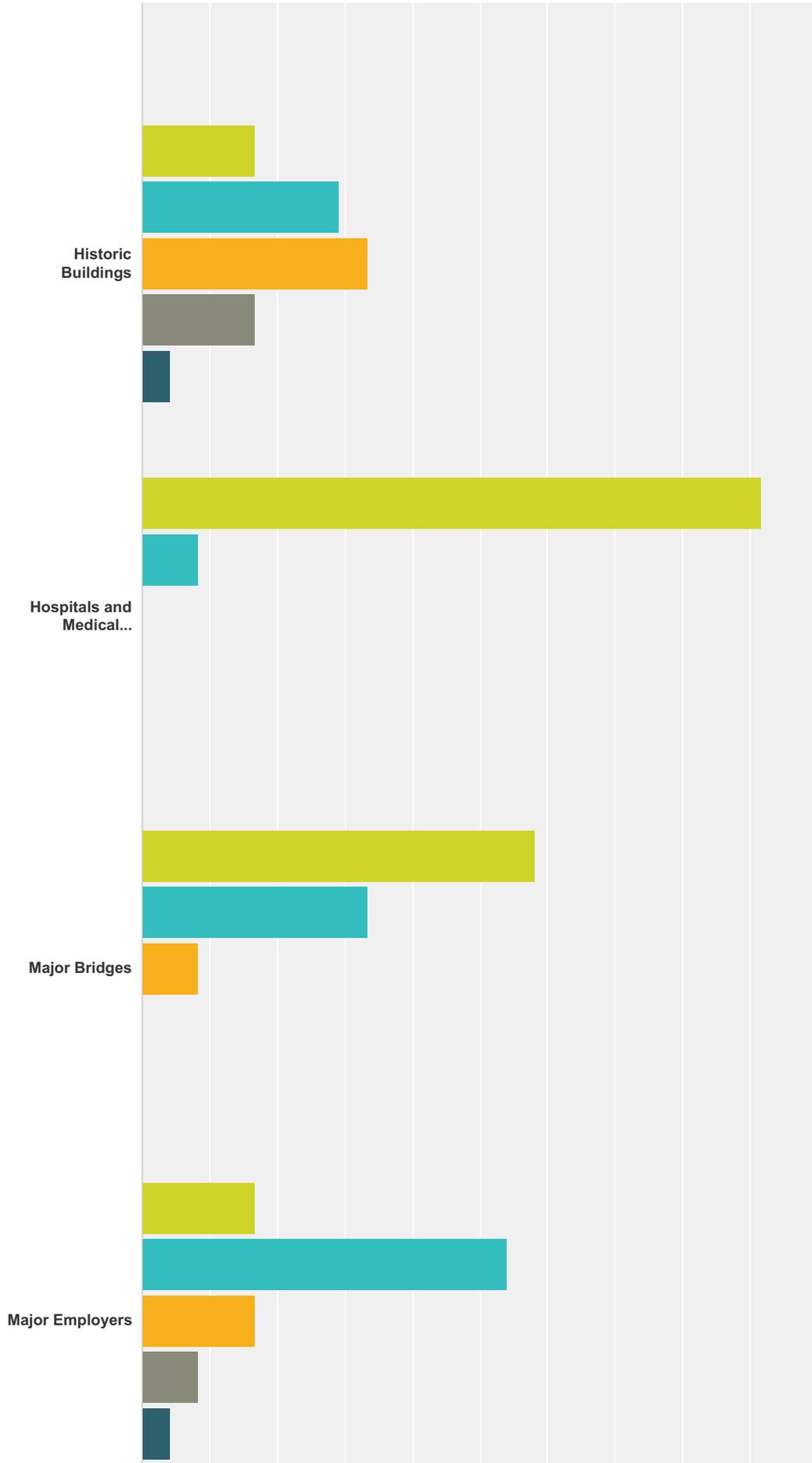
	1	2	3	4	5	6	Total	Score
Cultural/Historic: Damage or loss of libraries, museums, historic properties, etc.	4.35% 1	8.70% 2	4.35% 1	8.70% 2	17.39% 4	56.52% 13	23	2.04
Economic: Business interruptions/closures, job losses, etc.	17.39% 4	13.04% 3	26.09% 6	26.09% 6	17.39% 4	0.00% 0	23	3.87
Environmental: Damage, contamination or loss of forests, wetlands, waterways, etc.	8.70% 2	8.70% 2	26.09% 6	13.04% 3	30.43% 7	13.04% 3	23	3.13
Governance: Ability to maintain order and/or provide public amenities and services	0.00% 0	4.35% 1	21.74% 5	39.13% 9	13.04% 3	21.74% 5	23	2.74
Infrastructure: Damage/loss of roads, bridges, utilities, schools, etc.	21.74% 5	56.52% 13	8.70% 2	8.70% 2	4.35% 1	0.00% 0	23	4.83
People: Loss of life and/or injuries	47.83% 11	8.70% 2	13.04% 3	4.35% 1	17.39% 4	8.70% 2	23	4.39

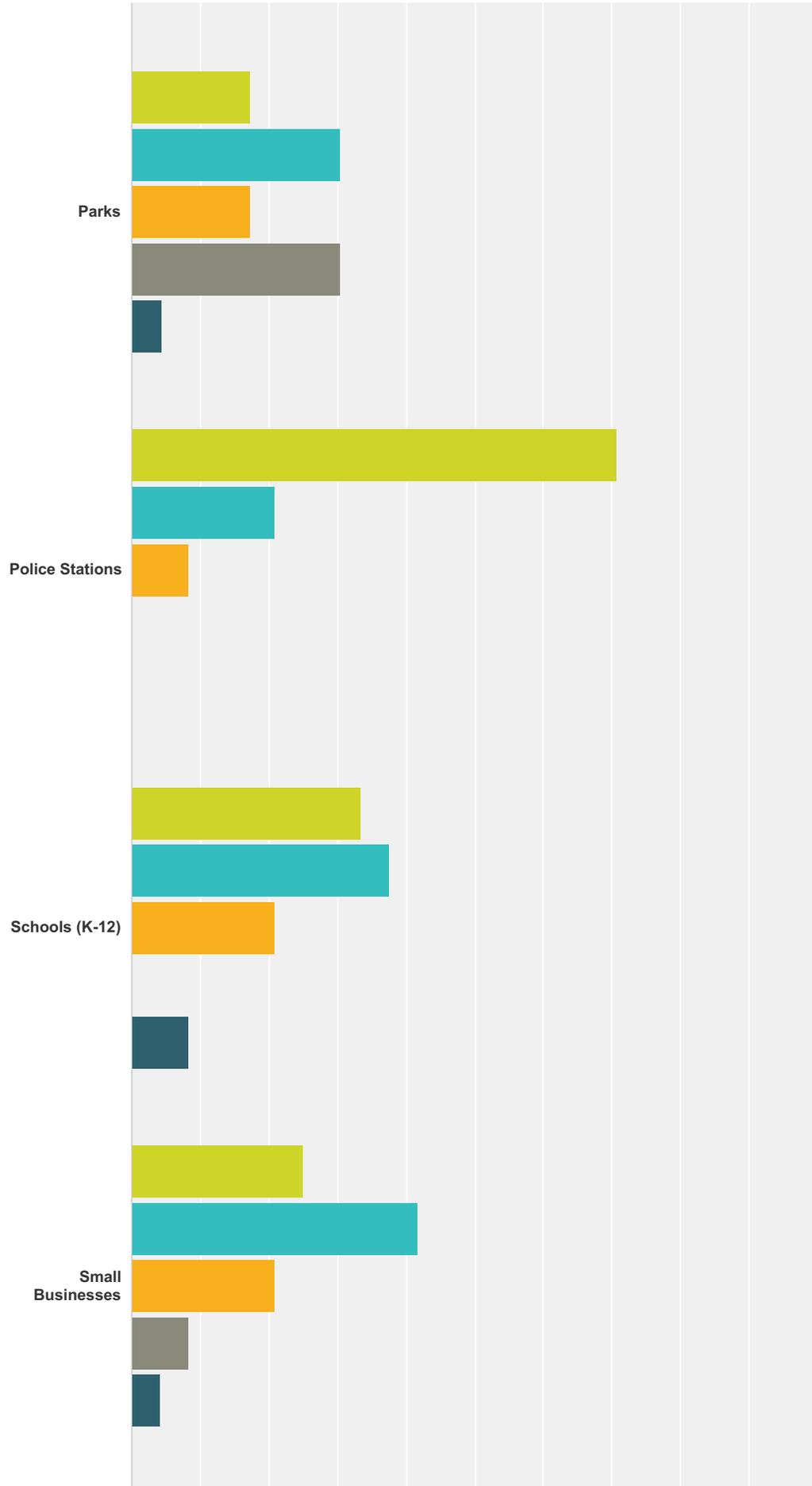
**Q5 How important is each of the following specific community assets to you? (Check the appropriate circle for each asset.)**

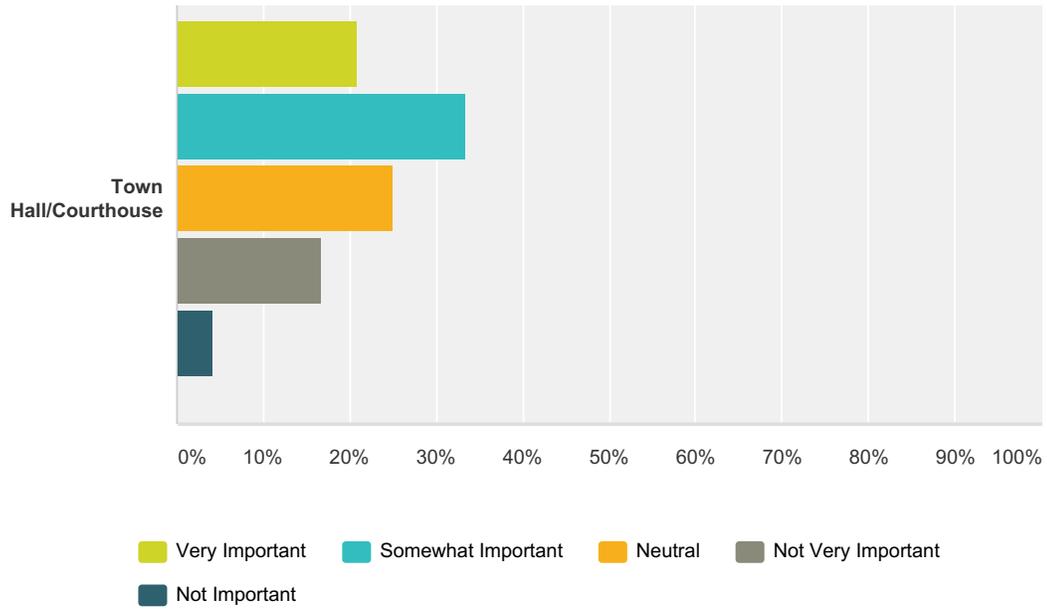
Answered: 24 Skipped: 1











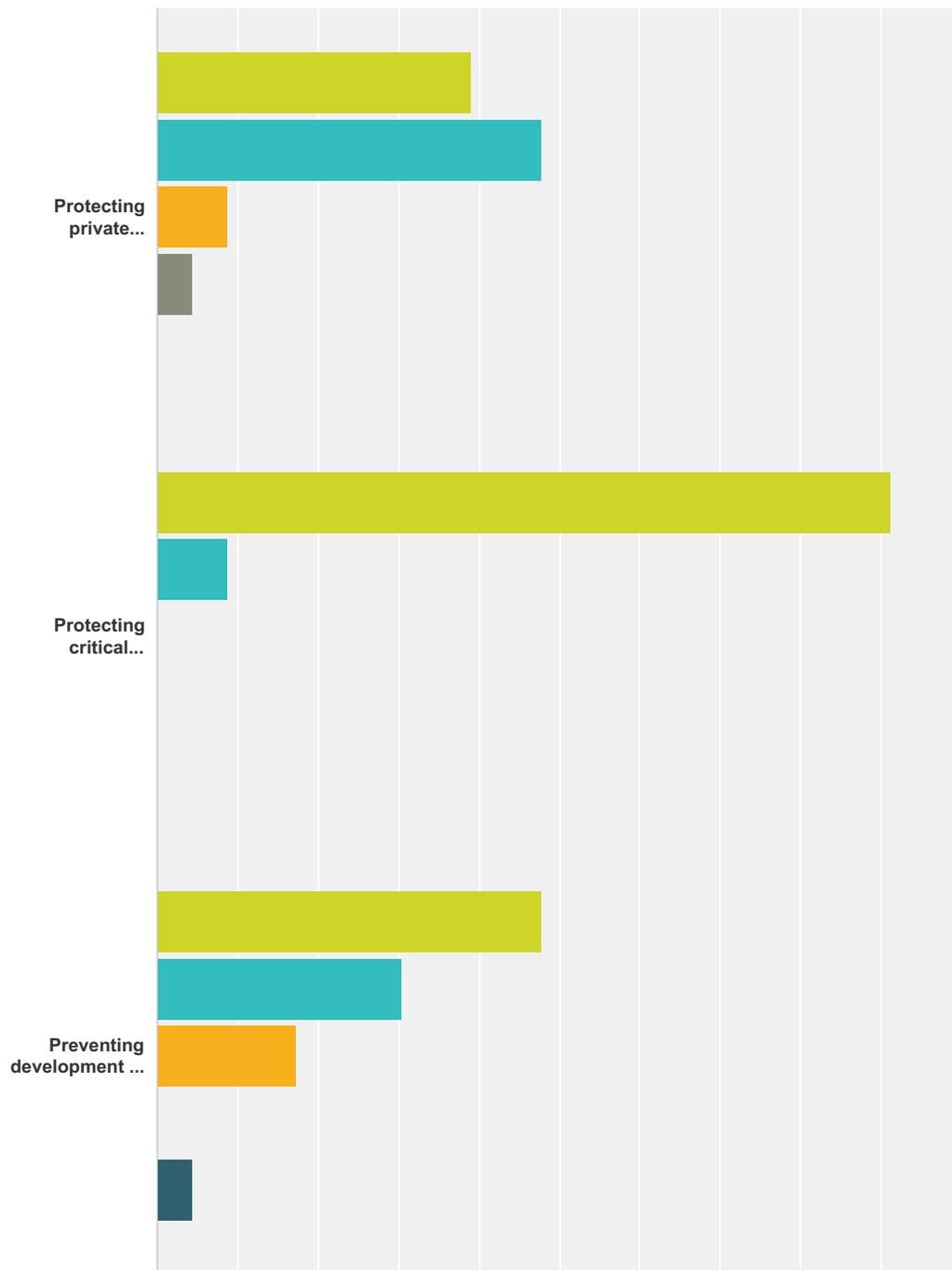
	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important	Total
Airports	21.74% 5	26.09% 6	17.39% 4	26.09% 6	8.70% 2	23
Colleges/Universities	29.17% 7	29.17% 7	29.17% 7	8.33% 2	4.17% 1	24
Day Care Facilities	20.83% 5	29.17% 7	20.83% 5	12.50% 3	16.67% 4	24
Elder Care Facilities	29.17% 7	37.50% 9	16.67% 4	4.17% 1	12.50% 3	24
EMS Facilities	70.83% 17	25.00% 6	0.00% 0	4.17% 1	0.00% 0	24
Emergency Operations Centers	70.83% 17	20.83% 5	4.17% 1	4.17% 1	0.00% 0	24
Emergency Shelters	58.33% 14	29.17% 7	4.17% 1	8.33% 2	0.00% 0	24
Fire Stations	87.50% 21	12.50% 3	0.00% 0	0.00% 0	0.00% 0	24
Historic Buildings	16.67% 4	29.17% 7	33.33% 8	16.67% 4	4.17% 1	24
Hospitals and Medical Facilities	91.67% 22	8.33% 2	0.00% 0	0.00% 0	0.00% 0	24
Major Bridges	58.33% 14	33.33% 8	8.33% 2	0.00% 0	0.00% 0	24
Major Employers	16.67% 4	54.17% 13	16.67% 4	8.33% 2	4.17% 1	24
Parks	17.39% 4	30.43% 7	17.39% 4	30.43% 7	4.35% 1	23
Police Stations	70.83% 17	20.83% 5	8.33% 2	0.00% 0	0.00% 0	24

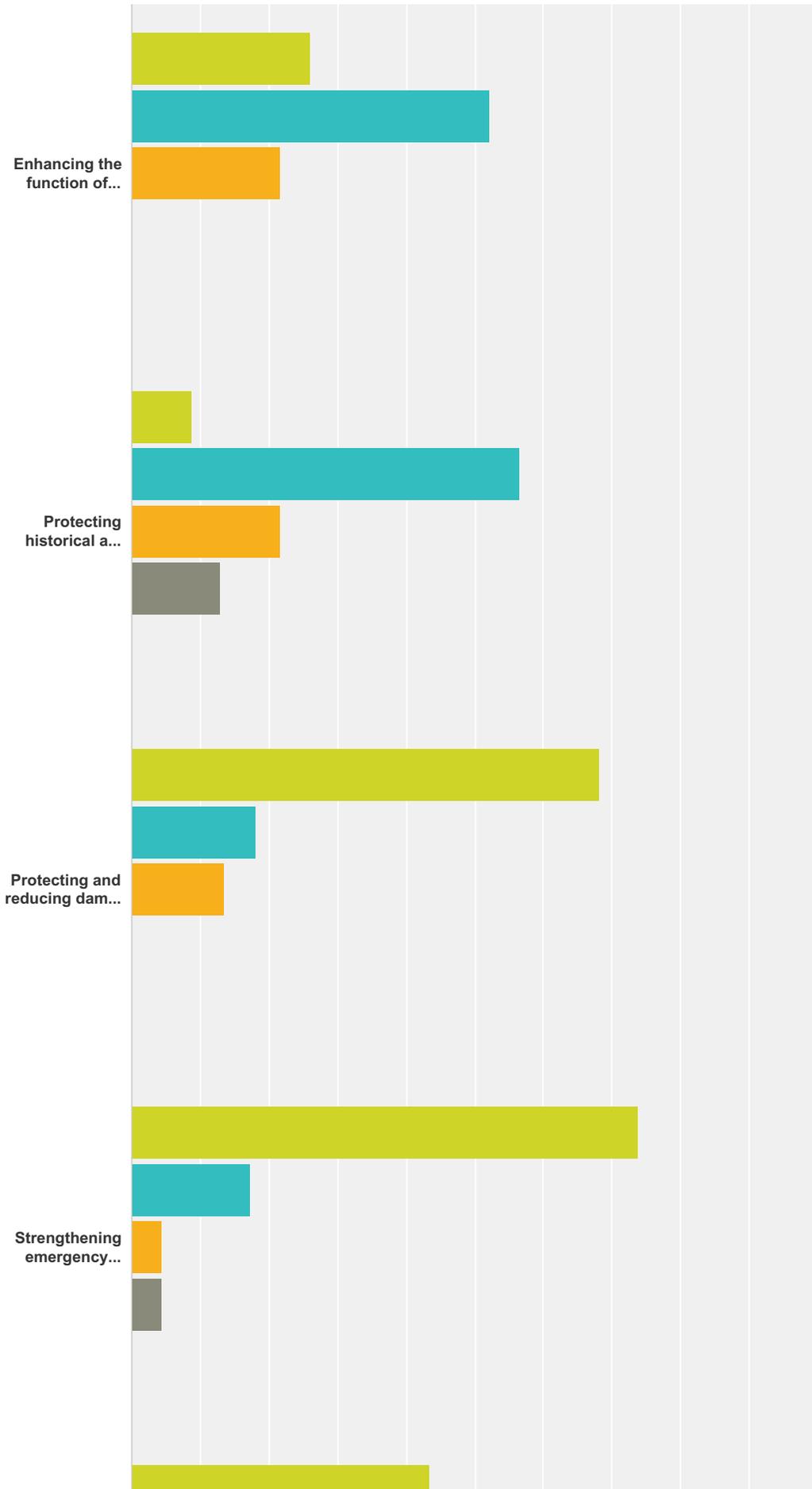
Schools (K-12)	<b>33.33%</b> 8	<b>37.50%</b> 9	<b>20.83%</b> 5	<b>0.00%</b> 0	<b>8.33%</b> 2	24
Small Businesses	<b>25.00%</b> 6	<b>41.67%</b> 10	<b>20.83%</b> 5	<b>8.33%</b> 2	<b>4.17%</b> 1	24
Town Hall/Courthouse	<b>20.83%</b> 5	<b>33.33%</b> 8	<b>25.00%</b> 6	<b>16.67%</b> 4	<b>4.17%</b> 1	24

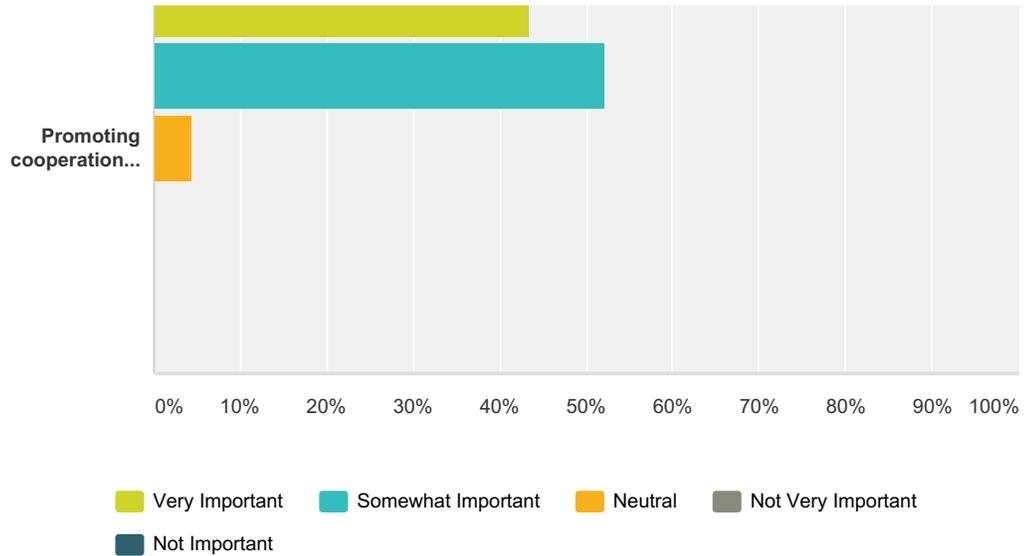
#	Other (please specify)	Date
	There are no responses.	

**Q6 Natural hazards can have a significant impact on a community, but planning for these types of events can help lessen the impacts. The following statements will help us determine citizen priorities regarding planning for natural hazards in your community. Please tell us how important each statement is to you by checking the appropriate circle for each.**

Answered: 23 Skipped: 2







	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important	Total
Protecting private property	39.13% 9	47.83% 11	8.70% 2	4.35% 1	0.00% 0	23
Protecting critical facilities (for example, hospitals, police stations, fire stations, etc.)	91.30% 21	8.70% 2	0.00% 0	0.00% 0	0.00% 0	23
Preventing development in hazard areas	47.83% 11	30.43% 7	17.39% 4	0.00% 0	4.35% 1	23
Enhancing the function of natural features (for example, streams, wetlands, etc.)	26.09% 6	52.17% 12	21.74% 5	0.00% 0	0.00% 0	23
Protecting historical and cultural landmarks	8.70% 2	56.52% 13	21.74% 5	13.04% 3	0.00% 0	23
Protecting and reducing damage to utilities	68.18% 15	18.18% 4	13.64% 3	0.00% 0	0.00% 0	22
Strengthening emergency services (for example, police, fire, ambulance)	73.91% 17	17.39% 4	4.35% 1	4.35% 1	0.00% 0	23
Promoting cooperation among public agencies, citizens, non-profit organizations, and businesses	43.48% 10	52.17% 12	4.35% 1	0.00% 0	0.00% 0	23

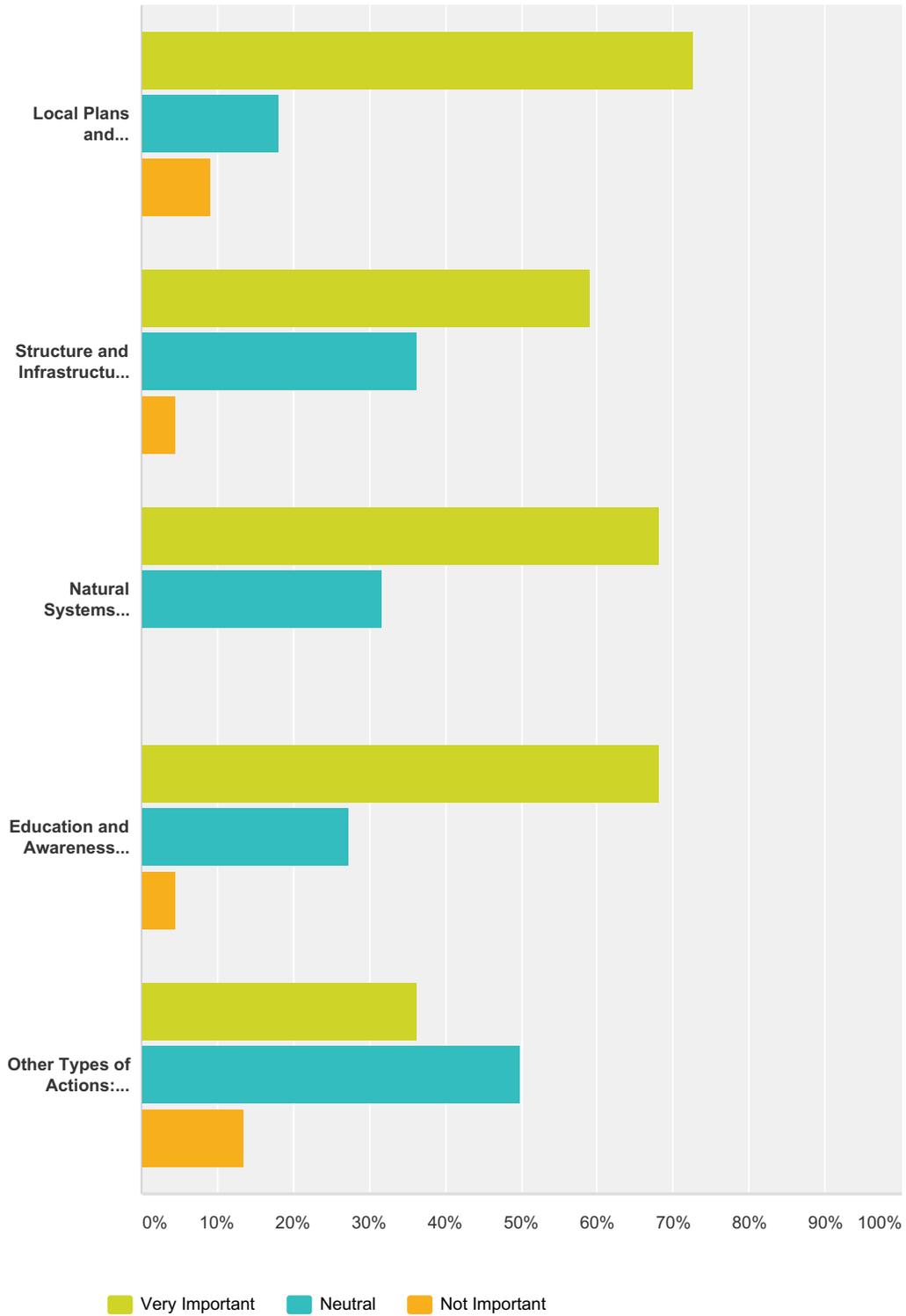
**Q7 What are some steps that your local government could take to reduce or eliminate the risk of future natural hazard damages in your neighborhood?**

Answered: 10 Skipped: 15

#	Responses	Date
1	Promote local businesses to strengthen our support network, aggressively promote climate change mitigation, decentralize the power grid	11/26/2014 5:32 PM
2	Bury power lines; prepare a talk or demonstration for the neighborhood about the emergency processes in place and how to access them.	11/26/2014 4:21 PM
3	Stop building more houses/buildings by clear-cutting trees.	11/24/2014 4:19 PM
4	Install drainage pipes	11/24/2014 3:59 PM
5	community storm shelters. There are numerous older homes without basements that would be unable to withstand EF2+ tornado and there are no public buildings or community shelters available as safe places for citizens to go to.	11/24/2014 1:09 PM
6	Strategic Planning; pre-positioned sites for debris management	11/24/2014 12:43 PM
7	repair and maintain storm drains	11/20/2014 4:21 PM
8	Better tree removal along powerlines and utility lines	11/18/2014 11:07 PM
9	More preventative action (in a way similar to salting the roads before a snow storm, adding more drains in low-level areas, etc)	11/13/2014 11:55 PM
10	Provide funding	11/12/2014 10:10 AM

**Q8 A number of community-wide activities can reduce risk from natural hazards. In general, these activities fall into one of the following five broad categories. Please tell us how important you think each one is for your community to consider pursuing.**

Answered: 22 Skipped: 3

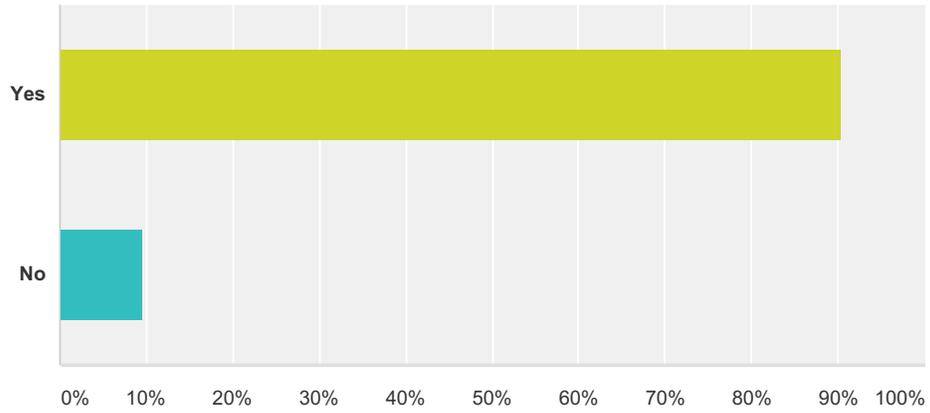


	Very Important	Neutral	Not Important	Total
Local Plans and Regulations: Government authorities, policies, or codes that influence the way land and buildings are developed and built.	72.73% 16	18.18% 4	9.09% 2	22
Structure and Infrastructure Projects: Modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area.	59.09% 13	36.36% 8	4.55% 1	22

Natural Systems Protection: Actions that minimize damage and losses and also preserve or restore the functions of natural systems.	<b>68.18%</b> 15	<b>31.82%</b> 7	<b>0.00%</b> 0	22
Education and Awareness Programs: Actions that inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them.	<b>68.18%</b> 15	<b>27.27%</b> 6	<b>4.55%</b> 1	22
Other Types of Actions: Actions that are related to mitigation in ways that make sense to the local government that do not fall into one of the categories above.	<b>36.36%</b> 8	<b>50.00%</b> 11	<b>13.64%</b> 3	22

### Q9 Are you interested in making your home or neighborhood more resistant to natural hazards?

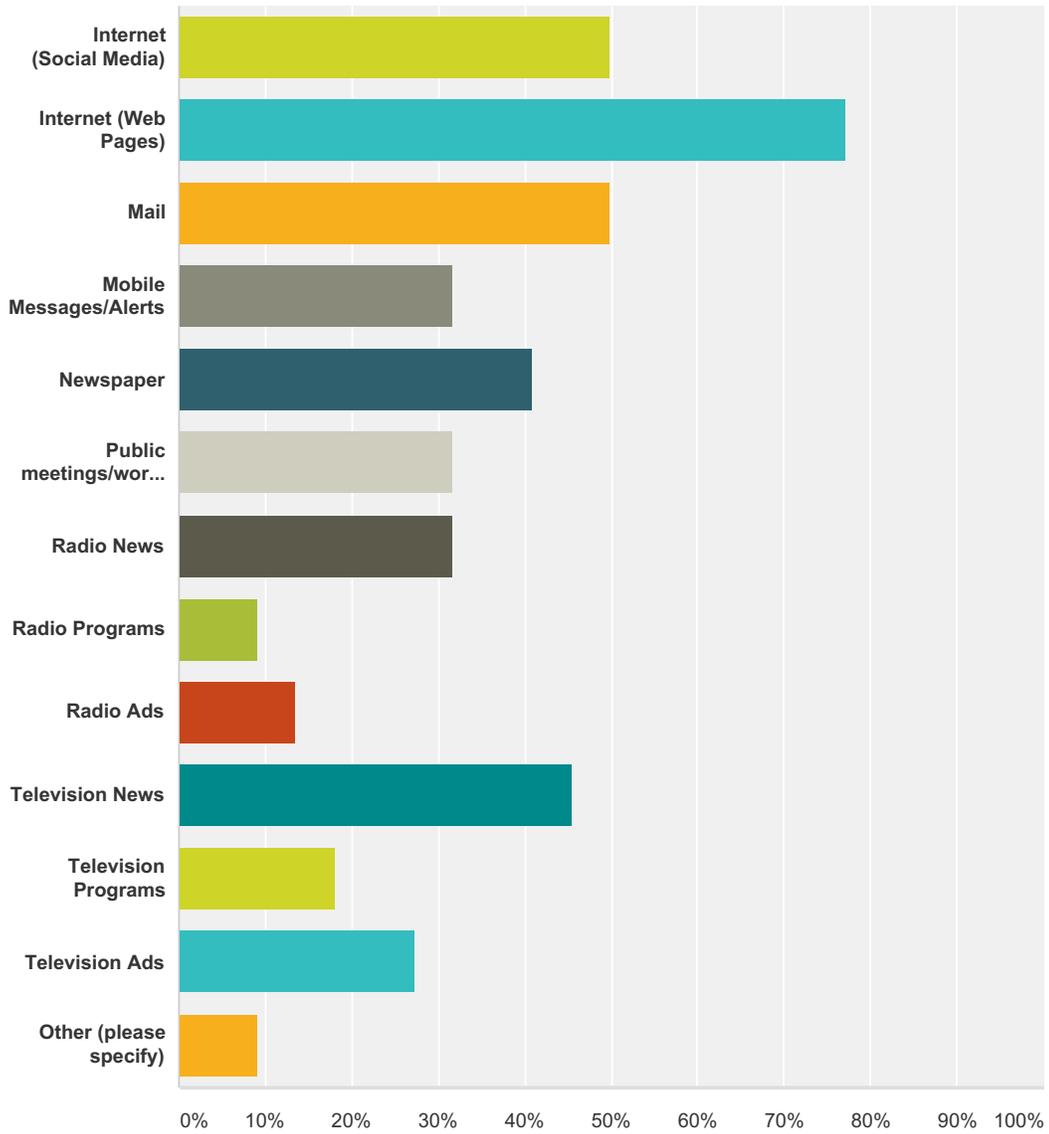
Answered: 21 Skipped: 4



Answer Choices	Responses
Yes	90.48% 19
No	9.52% 2
<b>Total</b>	<b>21</b>

### Q10 What are the most effective ways for you to receive information about how to make your home and neighborhood more resistant to natural hazards?

Answered: 22 Skipped: 3



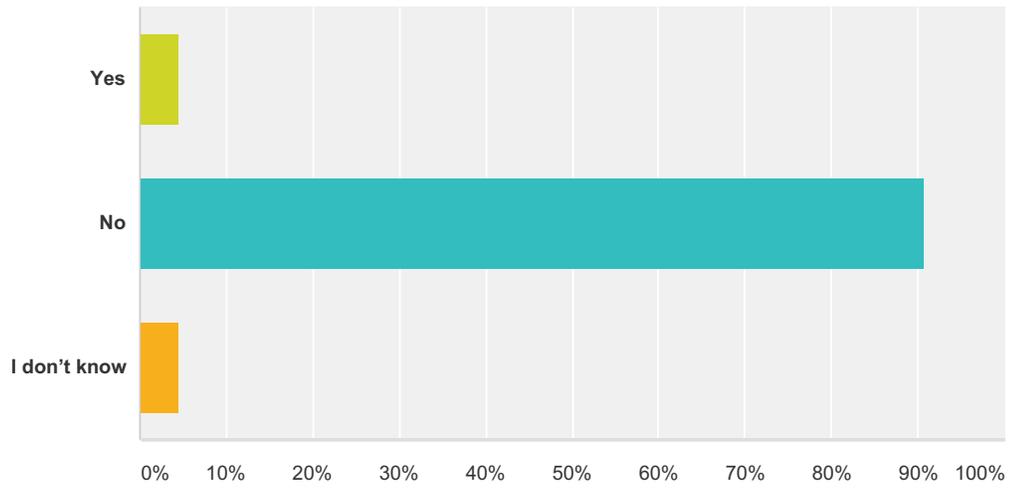
Answer Choices	Responses
Internet (Social Media)	50.00% 11
Internet (Web Pages)	77.27% 17
Mail	50.00% 11
Mobile Messages/Alerts	31.82% 7
Newspaper	40.91% 9

Public meetings/workshops	31.82%	7
Radio News	31.82%	7
Radio Programs	9.09%	2
Radio Ads	13.64%	3
Television News	45.45%	10
Television Programs	18.18%	4
Television Ads	27.27%	6
Other (please specify)	9.09%	2
<b>Total Respondents: 22</b>		

#	Other (please specify)	Date
1	e-mail	11/26/2014 5:33 PM
2	Email	11/13/2014 9:41 PM

### Q11 Is your home located in a floodplain?

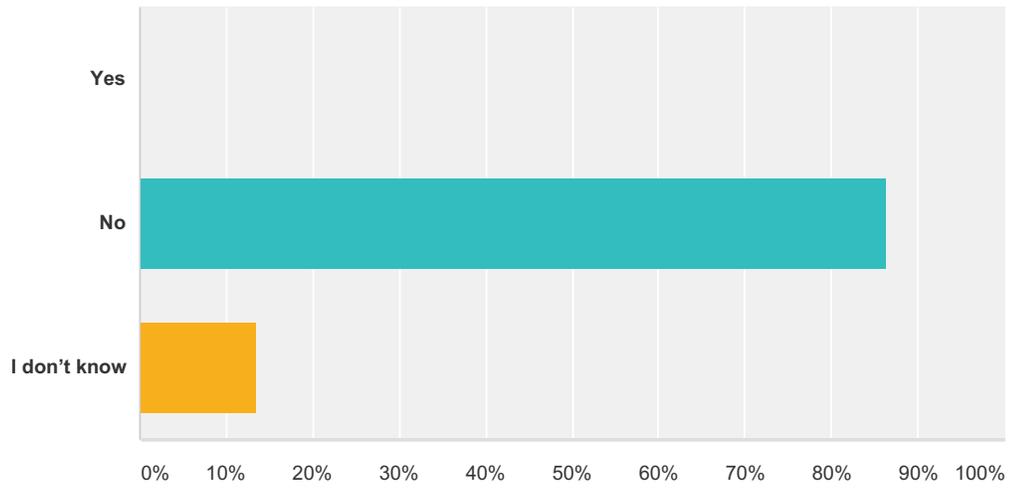
Answered: 22 Skipped: 3



Answer Choices	Responses
Yes	4.55% 1
No	90.91% 20
I don't know	4.55% 1
<b>Total</b>	<b>22</b>

### Q12 Do you have flood insurance?

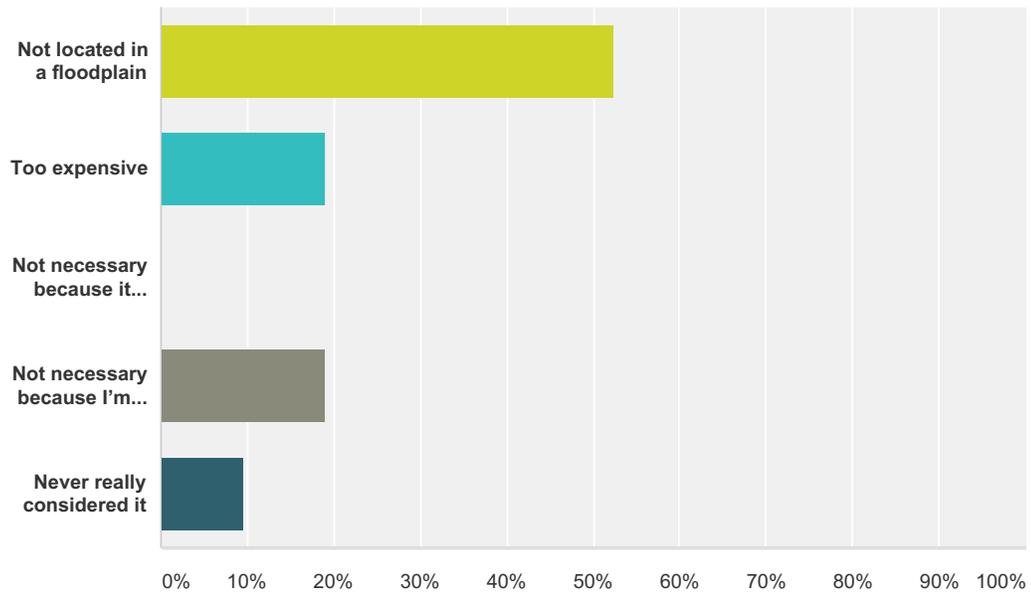
Answered: 22 Skipped: 3



Answer Choices	Responses
Yes	0.00% 0
No	86.36% 19
I don't know	13.64% 3
<b>Total</b>	<b>22</b>

### Q13 If “No,” why not?

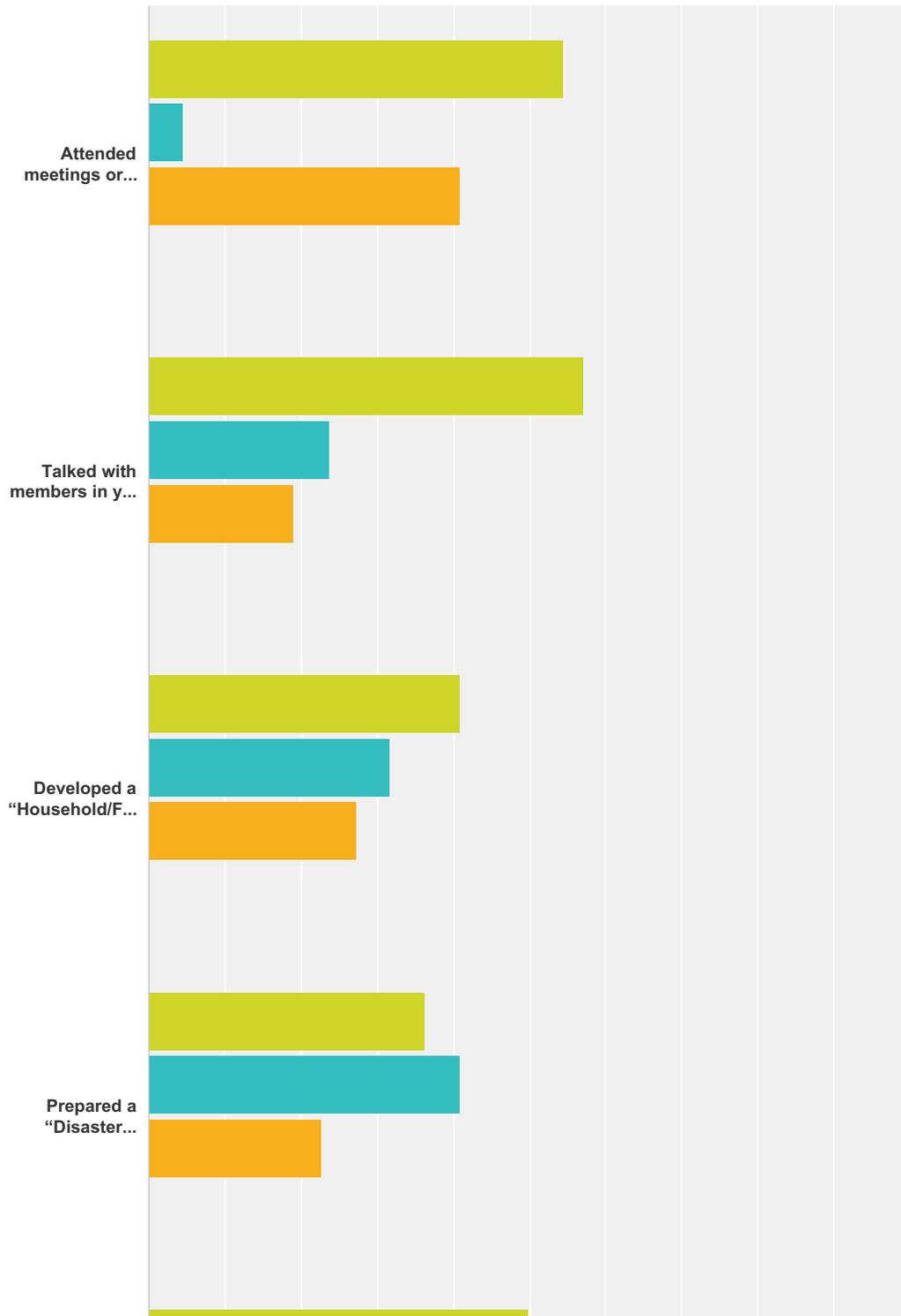
Answered: 21 Skipped: 4

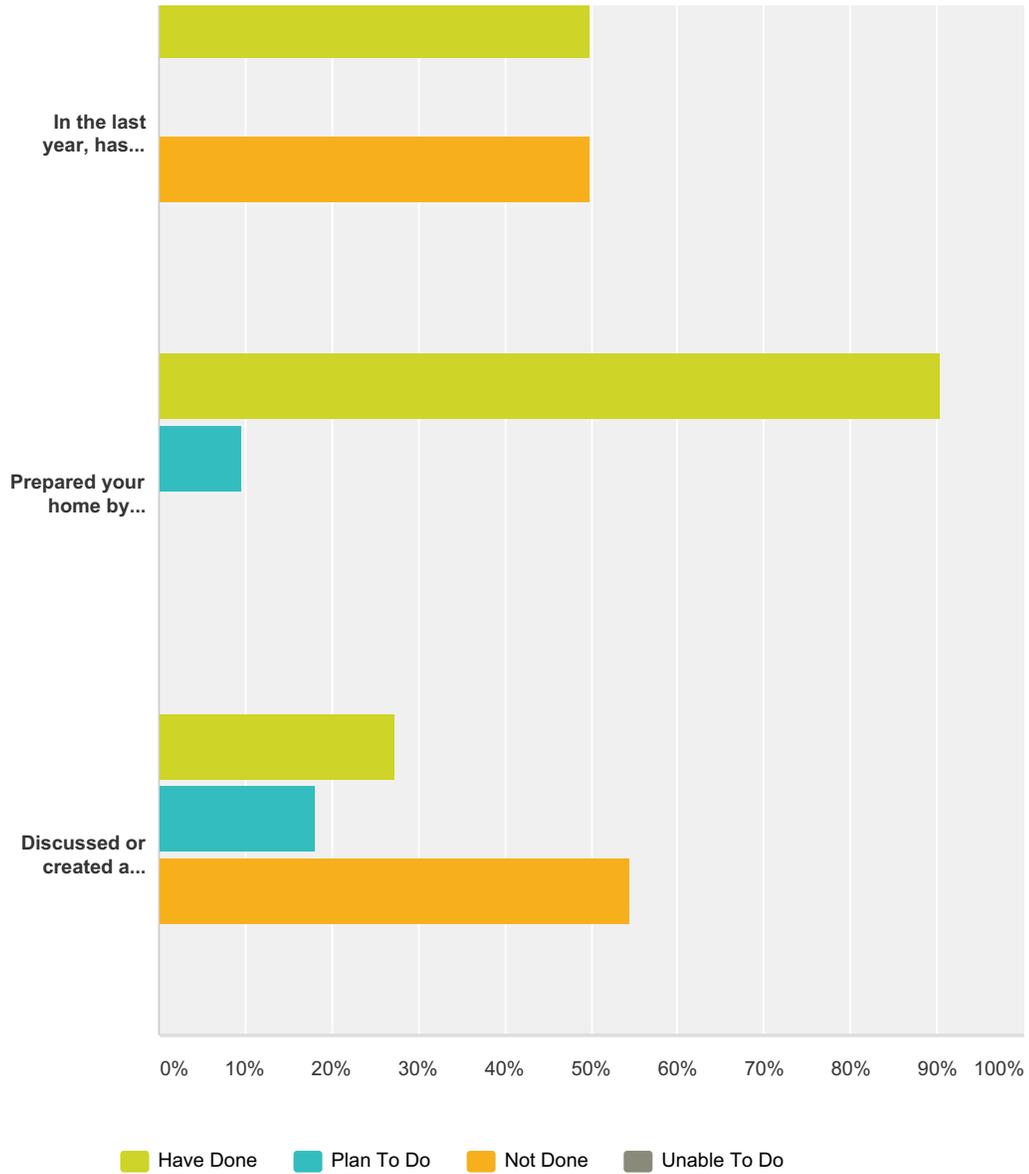


Answer Choices	Responses
Not located in a floodplain	52.38% 11
Too expensive	19.05% 4
Not necessary because it never floods	0.00% 0
Not necessary because I'm elevated or otherwise protected	19.05% 4
Never really considered it	9.52% 2
<b>Total</b>	<b>21</b>

**Q14 In the following list, please check the activities that you have done in your household, plan to do in the near future, have not done, or are unable to do. (Please check one response for each preparedness activity.)**

Answered: 22 Skipped: 3



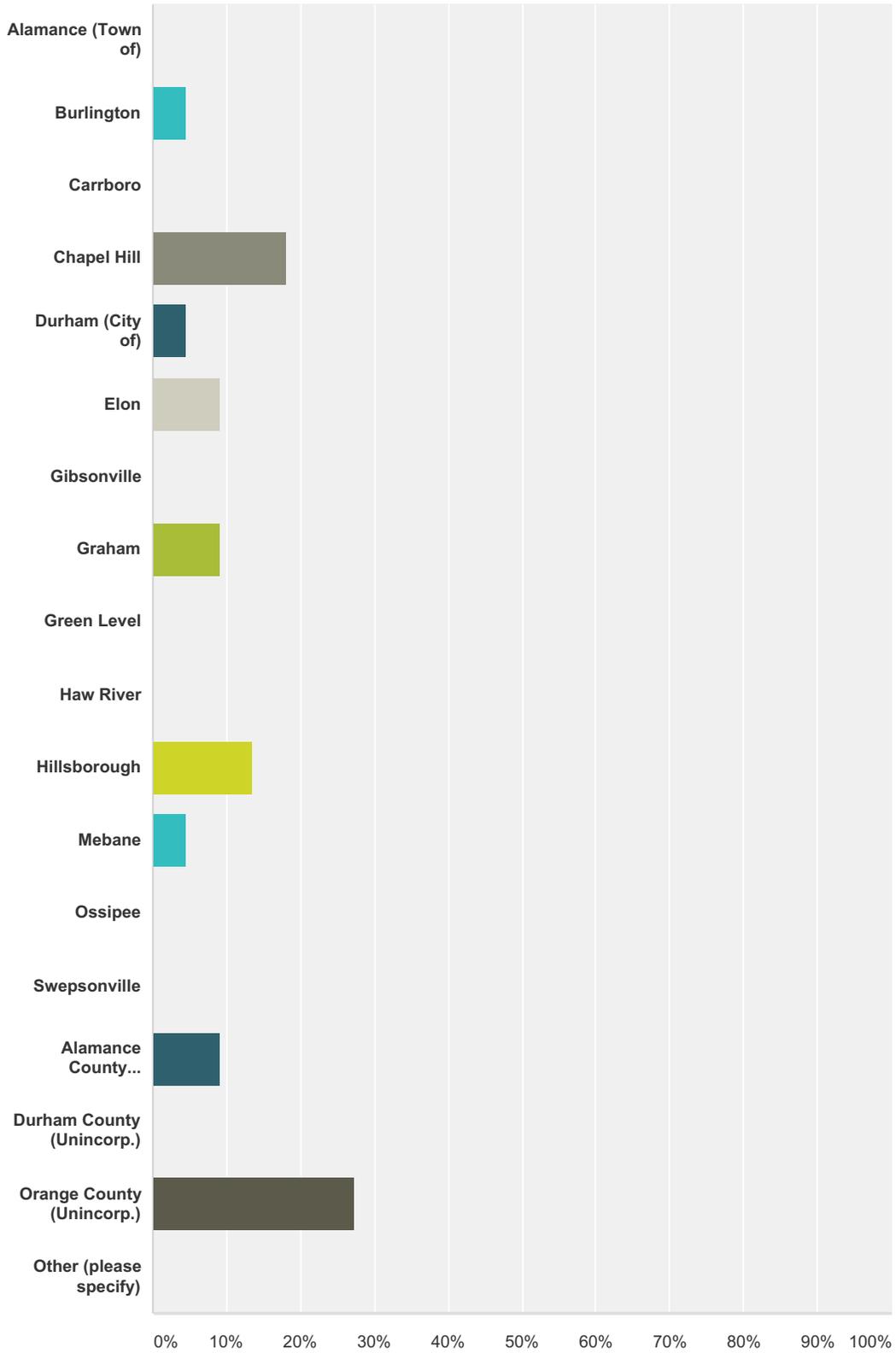


	Have Done	Plan To Do	Not Done	Unable To Do	Total
Attended meetings or received written information on natural disasters or emergency preparedness?	54.55% 12	4.55% 1	40.91% 9	0.00% 0	22
Talked with members in your household about what to do in case of a natural disaster or emergency?	57.14% 12	23.81% 5	19.05% 4	0.00% 0	21
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	40.91% 9	31.82% 7	27.27% 6	0.00% 0	22
Prepared a "Disaster Supply Kit" (stored extra food, water, batteries or other emergency supplies)?	36.36% 8	40.91% 9	22.73% 5	0.00% 0	22
In the last year, has anyone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	50.00% 11	0.00% 0	50.00% 11	0.00% 0	22
Prepared your home by installing smoke detectors on each level of the house?	90.48% 19	9.52% 2	0.00% 0	0.00% 0	21
Discussed or created a utility shutoff procedure in the event of a natural disaster?	27.27% 6	18.18% 4	54.55% 12	0.00% 0	22

#	Other (please specify)	Date
	There are no responses.	

### Q15 Where do you live?

Answered: 22 Skipped: 3



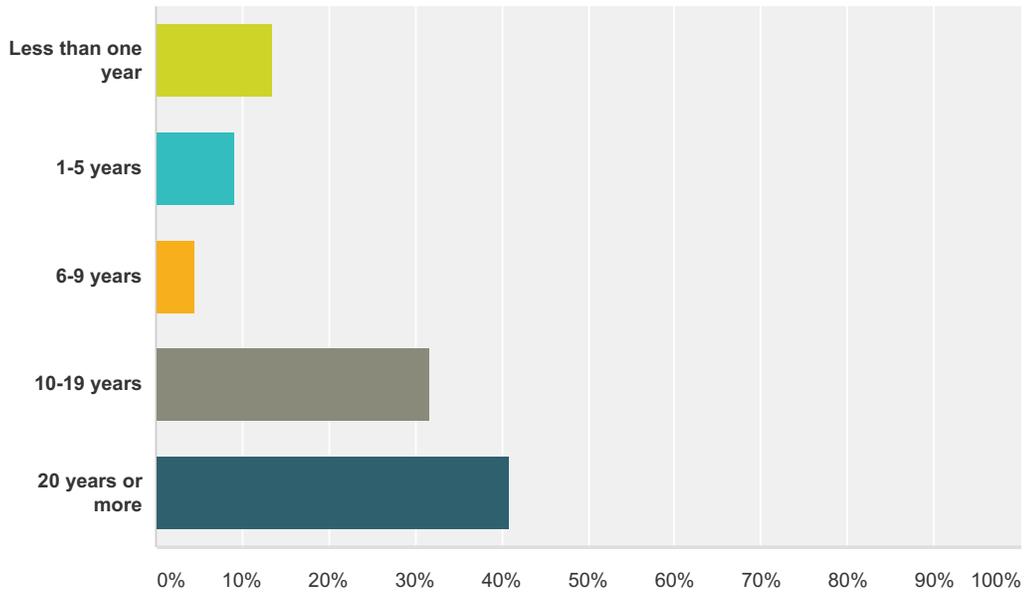
Answer Choices	Responses
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Alamance (Town of)	0.00%	0
Burlington	4.55%	1
Carrboro	0.00%	0
Chapel Hill	18.18%	4
Durham (City of)	4.55%	1
Elon	9.09%	2
Gibsonville	0.00%	0
Graham	9.09%	2
Green Level	0.00%	0
Haw River	0.00%	0
Hillsborough	13.64%	3
Mebane	4.55%	1
Ossipee	0.00%	0
Swepsonville	0.00%	0
Alamance County (Unincorp.)	9.09%	2
Durham County (Unincorp.)	0.00%	0
Orange County (Unincorp.)	27.27%	6
Other (please specify)	0.00%	0
<b>Total</b>		<b>22</b>

#	Other (please specify)	Date
	There are no responses.	

### Q16 How long have you lived in Alamance, Durham or Orange County?

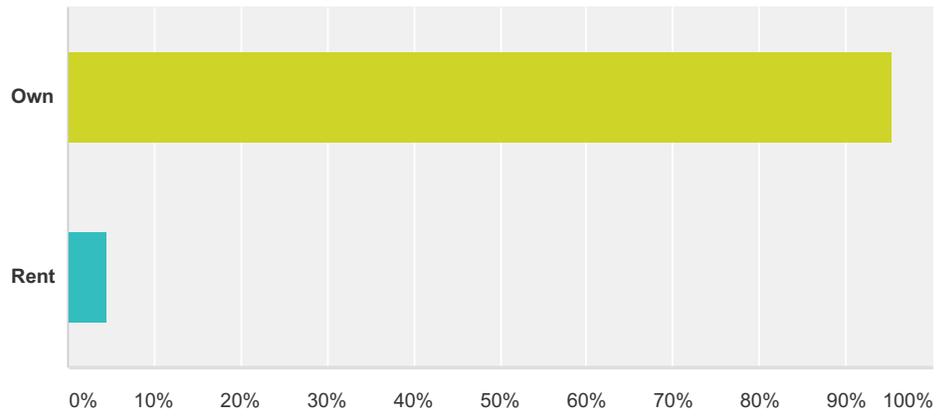
Answered: 22 Skipped: 3



Answer Choices	Responses
Less than one year	13.64% 3
1-5 years	9.09% 2
6-9 years	4.55% 1
10-19 years	31.82% 7
20 years or more	40.91% 9
<b>Total</b>	<b>22</b>

### Q17 Do you own or rent your home?

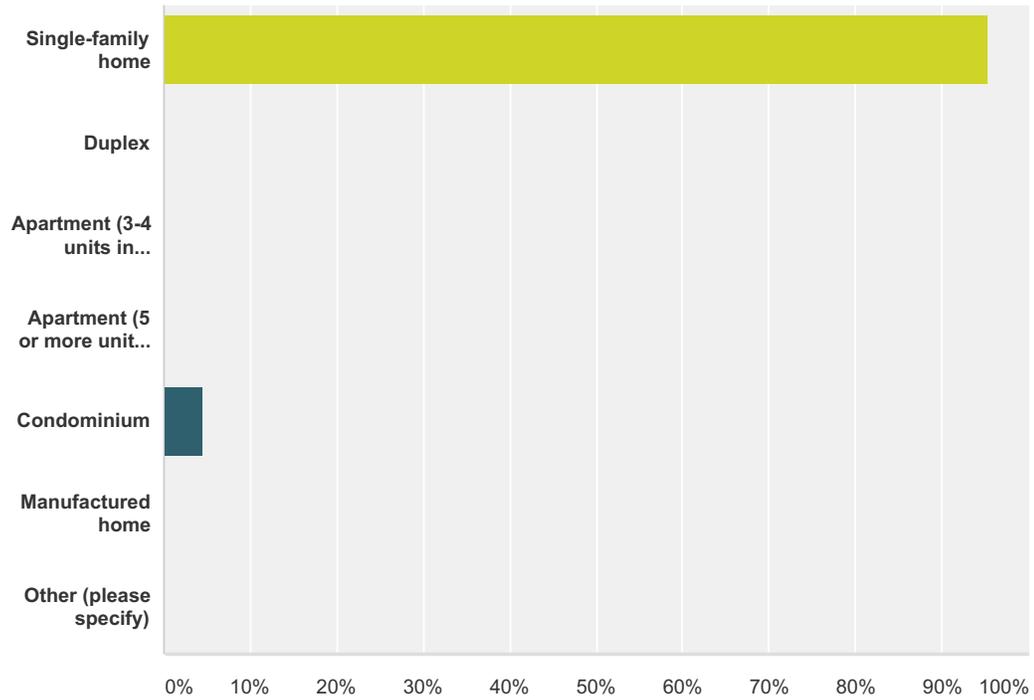
Answered: 22 Skipped: 3



Answer Choices	Responses
Own	95.45% 21
Rent	4.55% 1
<b>Total</b>	<b>22</b>

### Q18 What type of building do you live in?

Answered: 22 Skipped: 3



Answer Choices	Responses	
Single-family home	95.45%	21
Duplex	0.00%	0
Apartment (3-4 units in structure)	0.00%	0
Apartment (5 or more units in structure)	0.00%	0
Condominium	4.55%	1
Manufactured home	0.00%	0
Other (please specify)	0.00%	0
<b>Total</b>		<b>22</b>

#	Other (please specify)	Date
	There are no responses.	

## Q19 Additional Comments

Answered: 2 Skipped: 23

#	Responses	Date
1	In Orange County they are not worried about the unincorporated areas. Chapel Hill is the only area of any concern and everyone else has to fend for theirself.	11/24/2014 4:02 PM
2	I think this is a make work program for planners and excess emergency response manpower. Most people are unaware of what can happen to them and unwilling to inconvenience themselves with training or preparation. Beyond a moderate ability to clear roads, run basic EMS, fight house fires, and keep power on, I don't want much from government. Generally speaking, we are currently over-prepared and there is NO historical precedent for our needing more emergency preparedness. A severe tornado is the only event I can imagine that might be worse than Fran and its effect would be localized. We have several more important things too worry about. The fact that you might be able to draw in some "Federal Money" does not automatically make something a good idea or worth doing! Fix the schools! Fix the roads! Stop discouraging development and get some revenue generating development to help with our ridiculous tax burden!	11/24/2014 1:42 PM

## **Appendix E: Copies of Meeting Agendas and Sign-in Sheets**

This appendix to the Eno-Haw Regional Hazard Mitigation Plan contains a collection of meeting agendas and sign-in sheets for the Hazard Mitigation Planning Team meetings and public meetings held as part of this planning process. Further details about each meeting (i.e., meeting minutes) can be found in Section 2: *Planning Process*. PowerPoint slides for each meeting are available from Orange County Emergency Services.

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**Eno-Haw Regional Hazard Mitigation Plan  
Multi-Jurisdictional Planning Team  
March 27, 2015**

JURISDICTION	NAME	TITLE/AFFILIATION	EMAIL
<b>ALAMANCE COUNTY</b>			
Village of Alamance	Charlie	Joe G. ...	...
City of Burlington	...	...	...
Town of Elon	...	...	...
Town of Gibsonville	...	...	...
City of Graham	Nathan Page	City Planner	npage@cityofgraham.com
Town of Green Level	...	...	...
Town of Haw River	...	...	...
City of Mebane	...	...	...
Town of Ossipee	...	...	...
Town of Swepsonville	...	...	...
<b>DURHAM COUNTY</b>			
City of Durham	...	...	...
<b>ORANGE COUNTY</b>			
Town of Carrboro	Josh Hollingsworth	Em Planner	...
Town of Chapel Hill	...	...	...
Town of Hillsborough	...	...	...
<b>UNC – Chapel Hill</b>			
Local PM – Orange Co.	Kirby Sandless	EM COORDINATOR	...
State PM – North Carolina			
Planning - AECOM			



# Regional Hazard Mitigation Plan

## Regional Planning Team Meeting #4

Friday, March 27, 2015

1:00 p.m. – 2:30 p.m.

Orange County Emergency Services

510 Meadowlands Drive, Hillsborough, NC

Emergency Coordination Center Room (ECC/EOC)

### AGENDA

- |   |             |
|---|-------------|
| 1. Welcome and Introductions                      | 1:00 – 1:10 |
| 2. Overview of Working Draft                      | 1:10 – 2:00 |
| 3. Maintaining Momentum and Implementing the Plan | 2:00 – 2:15 |
| 4. Next Steps                                     | 2:15 – 2:20 |
| 5. Open Discussion                                | 2:20 – 2:30 |

**Eno-Haw Regional Hazard Mitigation Plan  
Multi-Jurisdictional Planning Team  
December 4, 2014**

JURISDICTION	NAME	TITLE/AFFILIATION	EMAIL
<b>ALAMANCE COUNTY</b>	<i>Alva Sizemore</i>	<i>Dep Fire Marshal / Asst. EM Coord</i>	<i>alva.sizemore@alamance-nc.com</i>
Village of Alamance			
City of Burlington	<i>Rosemarie</i>	<i>EM</i>	<i>rmarie@ci.burlington.nc.us</i>
Town of Elon	<i>Sean Tencer</i>	<i>Town Planner</i>	<i>stencer@ci.elon.nc.us</i>
Town of Gibsonville			
City of Graham			
Town of Green Level			
Town of Haw River			
City of Mebane			
Town of Ossipee			
Town of Swepsonville			
<b>DURHAM COUNTY</b>	<i>Mark Schell</i>	<i>Durham County EM</i>	<i>mschell@dcnc.gov</i>
City of Durham	<i>STEPHAN WINDSOR</i>	<i>CRS Coord</i>	<i>STEPHAN.WINDSOR@DURHAM.NC.GOV</i>
<b>ORANGE COUNTY</b>	<i>Josh Hollingsworth</i>	<i>EM Planner</i>	<i>jhollingsworth@orangecountync.gov</i>
Town of Carrboro	<i>TRAVIS CRABBE</i>	<i>Fire Chief</i>	<i>travis@townofcarrboro.org</i>
Town of Chapel Hill	<i>Matthew Sullivan</i>	<i>Emergency Mgmt. Coord.</i>	<i>msullivan@townofchapelhill.org</i>
Town of Hillsborough			
<b>UNC – Chapel Hill</b>			
<i>Town of Carrboro</i>	<i>Trish McGuire</i>	<i>Planning Director</i>	<i>pmcguire@townofcarrboro.org</i>
Local PM – Orange Co.	<i>Kirby Saunders</i>	<i>EM Coord / ORANGE CO.</i>	<i>k.saunders@orangecountync.gov</i>
State PM – North Carolina	<i>Ryan Cox</i>	<i>Hazard Mitigation Planning</i>	<i>ryan.cox@ncdps.gov</i>
Planning - AECOM			





# Regional Hazard Mitigation Plan

## Regional Planning Team Meeting #3

Thursday, December 4, 2014

10:00 a.m. – 2:00 p.m.

Whitted Human Services Building, Room 230

300 W Tryon Street, Hillsborough, NC

### AGENDA

- |  |               |
|--|---------------|
| 1. Welcome and Introductions                           | 10:00 – 10:10 |
| 2. Risk Assessment Overview and Preliminary Findings   | 10:10 – 11:30 |
| • Hazards Addressed                                    |               |
| • Building Inventories and Demographic Data            |               |
| • Natural Hazards Discussion (by hazard)               |               |
| • Hazard Risk Ranking Discussion                       |               |
| 3. Capability Assessment Overview and Prelim. Findings | 11:30 – 11:45 |
| 4. Working Lunch                                       | 11:45 – 12:15 |
| 5. Public Outreach Update                              | 12:15 – 12:20 |
| 6. Mitigation Strategy Development                     | 12:20 – 1:45  |
| • Vision Statement                                     |               |
| • Organization of Mitigation Strategy Section          |               |
| • Mitigation Action Plans (MAPs)                       |               |
| • Types of Mitigation Actions                          |               |
| • Mitigation Strategy Exercise                         |               |
| 7. Open Discussion                                     | 1:45 – 1:55   |
| 8. Next Steps  | 1:55 – 2:00   |



**AOD Regional Hazard Mitigation Plan  
Multi-Jurisdictional Planning Team  
September 15, 2014 – Orange County ES - EOC**

JURISDICTION	NAME	TITLE/AFFILIATION	EMAIL
<b>ALAMANCE COUNTY</b>	John Payne / Anna Sizemore	Ala. Co. EM	
Village of Alamance			
City of Burlington	Roger Manuel	See other sheet	
Town of Elon			
Town of Gibsonville			
City of Graham			
Town of Green Level			
Town of Haw River			
City of Mebane			
Town of Ossipee			
Town of Swepsonville			
<b>DURHAM COUNTY</b>	MARK SCHUELL / Mitchell	City/co. EMA (DURHAM/DUR CO)	mschuell@dcconnc.gov
City of Durham	Graham Summerson	City of Durham Public Works	graham.summerson@durhamnc.gov
<b>ORANGE COUNTY</b>	Ashley Moncado	Planning	amoncado@orangecountync.gov
Town of Carrboro	Josh McGuire	Planning	pmcguire@townofcarrboro.org
Town of Chapel Hill			
Town of Hillsborough			
<b>UNC – Chapel Hill</b>			
Local PM – Orange Co.	Kirby Saunders	EM Coordinator / Orange	k.saunders@orangecountync.gov
State PM – North Carolina	Ryan Cox	NCEM H/M Planning	ryan.cox@ncdps.gov
Planning - AECOM			



# Regional Hazard Mitigation Plan

## Regional Planning Team Meeting #2

Monday, September 15, 2014

1:30 p.m. – 3:30 p.m.

Orange County Emergency Services

510 Meadowlands Drive, Hillsborough, NC

Emergency Coordination Center Room (ECC/EOC)

### AGENDA

1. Welcome and Introductions 1:30 – 1:40
2. Hazard Identification Exercise 1:40 – 1:50
3. Public Outreach 1:50 – 2:10
  - Public Outreach Strategy
  - Online Public Participation Survey
  - Project Information Fact Sheet
4. Capability Assessments 2:10 – 2:30
  - Local Capability Assessment Survey
  - NFIP Survey
  - Safe Growth Survey
5. Vision Statement and Review of Current Goals 2:30 – 2:40
6. Exercise Results and Discussion 2:40 – 3:00
7. Planning Resources 3:00 – 3:15
  - Local Mitigation Planning Handbook
  - Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards
  - Integrating Hazard Mitigation Into Local Planning
8. Open Discussion 3:15 – 3:25
  - Regional name
  - Other issues, concerns or ideas
9. Next Steps 3:25 – 3:30

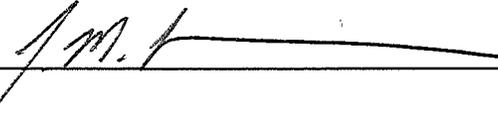
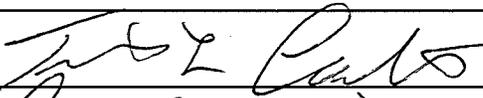
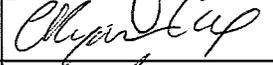
# Regional Hazard Mitigation Plan Kickoff Meeting (Alamance-Durham-Orange)

DATE: August 11, 2014

TIME: 1:30PM

LOCATION: Orange County Emergency Services, Hillsborough

<u>NAME</u>	<u>SIGNATURE</u>
Ashley Moncado	✓ Ashley Moncado
Craig Benedict	✓ Craig Benedict
Dalton Sawyer	- Randy Hoffman (for Dalton)
David Leonard	✓ David Leonard
<del>Frank Meadows</del> ROBERT J. JURY	R.D. [Signature]
Hope Morgan	
Indira Everett	
James Groves	
Jason Shepherd	
Jeff Reily	
John Crew	✓ [Signature]
John Greene	
Josh Hollingsworth	
Kim Woodward	✓ [Signature]

Kirby Saunders	✓		
Leslie O'Connor	✓		
Mark Schell	✓	Mark Schell	Durham CO. EM
Matt Sullivan	MATT LAWRENCE		Chapel Hill Fire Prot.
Michael Gilbert			
Perdita Holtz		Ashley Moncada	Ashley Moncada
Ricky Tuttle		ricky-tuttle	@medpa.gov
Steve Powers			
Travis Crabtree			
Cindy Harrison	✓		NCEM
Ryan Cox	✓		NCEM
Melissa Guibbeam	✓		City of Graham
John Payne	✓		ACEP
Ava Sizemore	✓	Asst.	ACEM
Roger Manual	✓		City of Burlington
Randy Holman	✓		UNC Hospitals

MARCUS BRYANT

Sue Burke

DURHAM OH

Sue Burke Town of Chapel Hill

# Regional Hazard Mitigation Plan

## Project Kickoff Meeting/ Regional Planning Team Meeting #1

Monday, August 11, 2014  
1:30 p.m. – 3:30 p.m.  
Orange County Emergency Services  
510 Meadowlands Drive, Hillsborough, NC  
Emergency Coordination Center Room (ECC/EOC)

### AGENDA

- |   |             |
|---|-------------|
| 1. Welcome and Introductions  | 1:30 – 1:40 |
| 2. Project Overview   | 1:40 – 2:05 |
| <ul style="list-style-type: none"><li>• Purpose, scope and schedule</li><li>• Risk Management Tool (RMT)</li><li>• Roles and responsibilities</li></ul>   |             |
| 3. Review and Discussion of Existing Plans  | 2:05 – 2:30 |
| 4. Plan Update and Integration Process  | 2:30 – 3:15 |
| <ul style="list-style-type: none"><li>• Planning team organization</li><li>• Communication</li><li>• Public outreach and stakeholder engagement</li><li>• Leveraging existing resources</li></ul>                                 |             |
| 5. Open Discussion  | 3:15 – 3:25 |
| <ul style="list-style-type: none"><li>• Potential opportunities in regionalizing the plans</li><li>• Potential obstacles or barriers</li><li>• Naming the regional plan</li><li>• Other local issues, concerns or ideas</li></ul> |             |
| 6. Next Steps   | 3:25 – 3:30 |

## **Appendix F: Project Information Fact Sheet**

This appendix to the Eno-Haw Regional Hazard Mitigation Plan contains a copy of the project information fact sheet that was developed to communicate information about the project to the general public and stakeholders, and to provide talking points for Hazard Mitigation Planning Team members.

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# Eno-Haw Regional Hazard Mitigation Plan

*Natural hazards have the potential to cause property damage, loss of life, economic hardship, and threats to public health and safety. Hazard mitigation measures are the things we do today to be more protected in the future. They are actions taken before a disaster happens to reduce the impact of future hazard events on people and property in the community. Mitigation reduces the risk of loss and creates a more resilient and sustainable community.*

## Project Overview

The counties of Alamance, Durham, and Orange, in coordination with their participating municipal jurisdictions, are preparing a **regional hazard mitigation plan** that will cover the three-county “Eno-Haw” area. The Eno-Haw Regional Hazard Mitigation Plan will identify local policies and actions for reducing risk and future losses from natural hazards such as floods, severe storms, wildfires, and winter weather. It will build upon the separate hazard mitigation plans initially prepared in each county.

The plan will also serve to meet key federal planning regulations which require local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for hazard mitigation projects.

These mitigation planning requirements stem from the Disaster Mitigation Act of 2000, which was passed by the U.S. Congress in October of 2000. This Act amended federal law to require that all states and local governments must have hazard mitigation plans in place in order to be eligible to apply for funding under such programs as the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation (PDM) program.

## The Planning Process

The planning process for the Eno-Haw Regional Hazard Mitigation Plan will consist of six main phases described in detail in the following sections: **public outreach, risk assessment, capability assessment, mitigation strategy development, plan maintenance, and plan adoption**. The end result will be a new regional hazard mitigation plan based in part on the existing plans of the three separate counties and their jurisdictions and based in part on this new planning effort.



Above: The plan update process being followed for the Eno-Haw Regional Hazard Mitigation Plan.

## Public Outreach

The goals of the public outreach strategy for this planning effort are to: generate public interest, solicit citizen input, and engage additional partners in the planning process.

Public outreach will include two open public meetings, a project information website located at <http://www.readyorange.org>, a web-based public participation survey located at <https://www.surveymonkey.com/s/aodhazardmitigation> (also accessible through the project information website), and updates and information shared via social media, such as on Facebook and Twitter.

## Risk Assessment

The desired outcomes of a risk assessment are an evaluation of each hazard's potential impacts on the people, economy, and built and natural environments in the planning area plus an understanding of each participating jurisdiction's overall vulnerability and most significant risks. These potential impacts and a thorough understanding of the overall vulnerability can be used to create problem statements and identify and prioritize mitigation actions to reduce risk.

## Capability Assessment

Each participating jurisdiction has a unique set of capabilities, including authorities, policies, programs, staff, funding, and other resources available to accomplish mitigation and reduce long-term vulnerability. By reviewing the existing capabilities in each jurisdiction, the planning team can identify capabilities that currently reduce disaster losses or could be used to reduce losses in the future.

## Mitigation Strategy Development

The primary purpose of mitigation planning is to systematically identify policies, actions, and activities to reduce the impact that future natural hazard occurrences will have on people and property in the planning area. Mitigation strategy development includes long-range mitigation goals common to the planning area and short-term mitigation actions specific to each participating jurisdiction.

## Plan Maintenance

Plan maintenance is the process established to track the plan's implementation and to aid in updating the plan every five years. These procedures help to ensure that the mitigation strategy is implemented according to the plan. They also provide the foundation for an ongoing mitigation program, standardize long-term monitoring of hazard-related activities, integrate mitigation principles into local officials' daily job responsibilities, and maintain momentum through continued engagement and accountability in the plan's progress.

## Plan Adoption

Each participating jurisdiction seeking plan approval must adopt the plan. Adoption by the local governing body demonstrates the community's commitment to implementing the mitigation strategy and authorizes responsible agencies to execute their actions. The final plan is not approved until the community adopts the plan and FEMA receives documentation of formal adoption by the governing body of the jurisdictions requesting approval.

## Project Leadership

This regional planning effort is being led by Orange County Emergency Services, with technical assistance from the State of North Carolina and consulting firm AECOM. A local Hazard Mitigation Planning Team made up of local officials, representatives, and stakeholders has been established to guide this process. In addition, local points of contact have been established for each of the three counties as well as all of the participating municipal jurisdictions. Planning committee meetings and open public meetings will be scheduled to occur at key points throughout the project timeline.

## Schedule

The planning process began in July 2014 and a fully updated plan is expected to be ready for review by the North Carolina Division of Emergency Management and the Federal Emergency Management Agency by February 2015. Draft documents will be available on the project information website at various stages in the planning process.

## For More Information

To learn more about this project, or to find out how you can be involved, please contact Kirby Saunders, Orange County Emergency Services Coordinator, at (919) 245-6100 Ext. 6135 or [ksaunders@orangecountync.gov](mailto:ksaunders@orangecountync.gov).

Additional information and regular updates throughout the duration of this project can be found on the Eno-Haw Hazard Mitigation Planning website at <http://www.readyorange.org>.

## **Appendix G: Safe Growth Surveys**

This appendix to the Eno-Haw Regional Hazard Mitigation Plan includes a copy of the *Safe Growth Survey* completed by the one jurisdiction that participated in this optional survey.

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## AOD Regional Hazard Mitigation Plan Update

### SAFE GROWTH SURVEY

This survey instrument is designed to capture some general information for purposes of updating the *AOD Regional Hazard Mitigation Plan*. It has been adapted from a technique recommended by the American Planning Association and Federal Emergency Management Agency to help evaluate the extent to which each local jurisdiction in the three-county planning area of Alamance, Durham, and Orange counties is positioned to grow safely relative to its natural hazards. These hazards include but are not limited to dam failure, droughts and heat waves, earthquakes, floods, hurricanes, landslides, thunderstorms, severe winter storms, tornadoes, and wildfires.

This survey should be completed by appropriate planning, zoning and/or community development staff for each jurisdiction participating in the hazard mitigation plan update process. If you have any questions regarding this survey or the plan update process, please contact your Local Jurisdiction Lead who is currently serving on the multi-jurisdictional Planning Team. You may also contact Kirby Saunders, Orange County Emergency Management Coordinator, at 919.245.6100 Ext. 6135 or [ksaunders@orangecountync.gov](mailto:ksaunders@orangecountync.gov).

**Please provide us with the following contact information.**

<b>Name / Title:</b>	Patricia McGuire/Planning Director
<b>Jurisdiction:</b>	Town of Carrboro
<b>Department:</b>	Planning
<b>Phone / E-mail:</b>	919-918-7327/ <a href="mailto:pmcguire@townofcarrboro.org">pmcguire@townofcarrboro.org</a>

**Please indicate how strongly you agree or disagree with the following statements as they relate to your jurisdiction’s current plans, policies and programs for guiding future community growth and development.**

1 = Strongly Disagree    2 = Somewhat Disagree    3 = Neutral    4 = Somewhat Agree    5 = Strongly Agree

<b>GENERAL PLAN</b>	
<b>Land Use</b>	
1. The general plan includes a future land use map that clearly identifies natural hazard areas.	1    2    3 <u>4</u> 5
2. Current land use policies discourage development and/or redevelopment within natural hazard areas.	1    2    3 <u>4</u> 5
3. The general plan provides adequate space for expected future growth in areas located outside of natural hazard areas.	1    2    3 <u>4</u> 5
<b>Transportation</b>	
4. The transportation element limits access to natural hazard areas.	1    2    3 <u>4</u> 5

<p>5. Transportation policy is used to guide future growth and development to safe locations.</p>	<p>1    2    3    <u>4</u>    5</p>
<p>6. Transportation systems are designed to function under disaster conditions (e.g., evacuation, mobility for fire/rescue apparatus, etc.).</p>	<p>1    2    <u>3</u>    4    5</p>
<p><b>Environmental Management</b></p>	
<p>7. Environmental features that serve to protect development from hazards (e.g., wetlands, riparian buffers, etc.) are identified and mapped.</p>	<p>1    2    3    4    <u>5</u></p>
<p>8. Environmental policies encourage the preservation and restoration of protective ecosystems.</p>	<p>1    2    3    <u>4</u>    5</p>
<p>9. Environmental policies provide incentives to development that is located outside of protective ecosystems.</p>	<p>1    2    <u>3</u>    4    5</p>
<p><b>Public Safety</b></p>	
<p>10. The goals and policies of the general plan are related to and consistent with those in the Multi-jurisdictional Hazard Mitigation Plan.</p>	<p>1    2    3    <u>4</u>    5</p>
<p>11. Public safety is explicitly included in the plan's growth and development policies.</p>	<p>1    2    3    <u>4</u>    5</p>
<p>12. The monitoring and implementation section of the plan covers safe growth objectives.</p>	<p>1    2    <u>3</u>    4    5</p>
<p><b>ZONING ORDINANCE</b></p>	
<p>13. The zoning ordinance conforms to the general plan in terms of discouraging development and/or redevelopment within natural hazard areas.</p>	<p>1    2    3    <u>4</u>    5</p>
<p>14. The ordinance contains natural hazard overlay zones that set conditions for land use within such zones.</p>	<p>1    <u>2</u>    3    4    5</p>
<p>15. Rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use.</p>	<p>1    2    <u>3</u>    4    5</p>
<p>16. The ordinance prohibits development within, or filling of, wetlands, floodways, and floodplains.</p>	<p>1    2    3    <u>4</u>    5</p>

<b>SUBDIVISION REGULATIONS</b>					
17. The subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas.	1	2	3	<u>4</u>	5
18. The regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources.	1	2	3	4	<u>5</u>
19. The regulations allow density transfers where hazard areas exist.	1	2	3	<u>4</u>	5
<b>CAPITAL IMPROVEMENT PROGRAM AND INFRASTRUCTURE POLICIES</b>					
20. The capital improvement program limits expenditures on projects that would encourage development and/or redevelopment in areas vulnerable to natural hazards.	1	2	<u>3</u>	4	5
21. Infrastructure policies limit the extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards.	1	2	<u>3</u>	4	5
22. The capital improvements program provides funding for hazard mitigation projects identified in the Multi-jurisdictional Hazard Mitigation Plan.	1	<u>2</u>	3	4	5
<b>OTHER</b>					
23. Small area or corridor plans recognize the need to avoid or mitigate natural hazards.	1	2	3	<u>4</u>	5
24. The building code contains provisions to strengthen or elevate new or substantially improved construction to withstand hazard forces.	1	2	3	<u>4</u>	5
25. Economic development and/or redevelopment strategies include provisions for mitigating natural hazards or otherwise enhancing social and economic resiliency to hazards.	1	2	<u>3</u>	4	5

**Thank you for your assistance in completing this survey. Please submit a completed, scanned copy to Kirby Saunders, Orange County Emergency Management Coordinator, at [ksaunders@orangecountync.gov](mailto:ksaunders@orangecountync.gov) or by fax to (919) 732-8137.**