

# Appendix D

## Focus Group Results

This appendix reports the results of three citizen focus groups on natural hazard risk reduction that were held in conjunction with the development of a Natural Hazard Mitigation Plan for the City of Beaverton. The focus groups were conducted during the process of making the plan in order to gain an understanding of resident's levels of preparedness, gather ideas on risk reduction strategies the City could take, and to prioritize plan goals and implementation strategies.

### Methodology

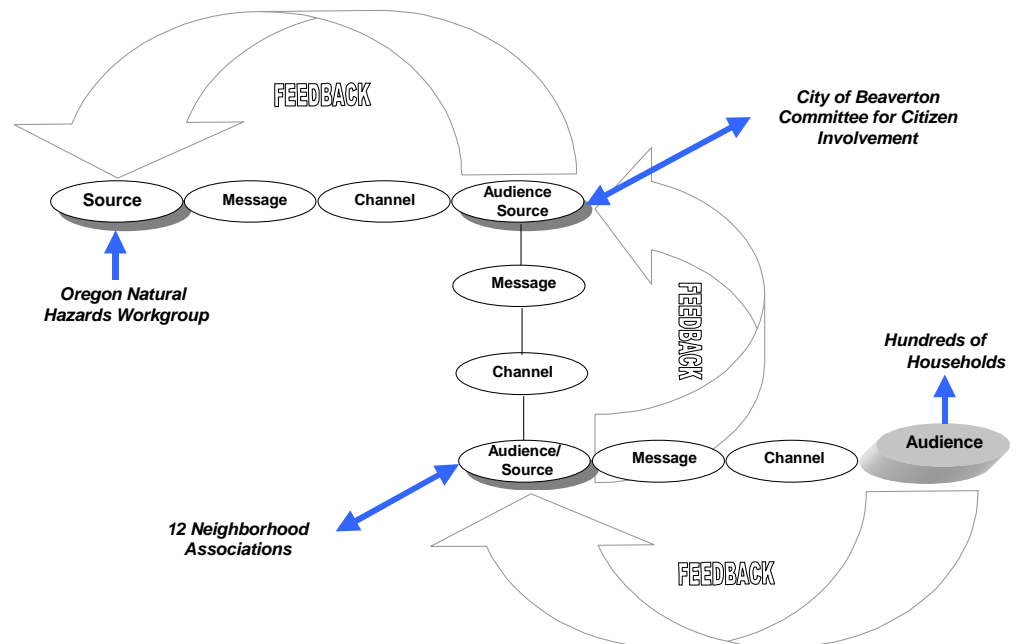
ONHW reviewed the household preparedness survey instrument along with preliminary results in order to determine what kind of information would be gathered through the focus group process. Several key themes came out of the survey including: household risk perception, household preparedness, willingness to reduce risk, and citizen priorities for community-level risk reduction. These themes were explored further in the focus group process. The household survey provided a snapshot in time on these natural hazard mitigation themes, but the focus group process allowed more qualitative data to be collected. A total of three focus group sessions were held in Beaverton between April 14 and April 21, 2003.

Two recruitment strategies were implemented in this process and included self-selection through the household survey and invitations through ONHW's Leveraged Communication Strategy (LCS). Included in the household survey mailing was an interest form that respondents could fill out indicating their interest in participating in one of the focus groups. Those who returned the interest form were contacted via letter and telephone and asked to participate. The LCS used existing communication channels to share information with households about the focus groups. Figure D-1 illustrates how the LCS works. In this case, ONHW gave information about the focus groups to the City of Beaverton's Committee for Citizen Involvement who then passed it along to 12 different neighborhood association committees, who then shared the information with households within their neighborhood groups. This strategy allowed ONHW to reach a larger target audience than resources would typically allow.

## Figure D-1. Oregon Natural Hazards Workgroup's Leveraged Communication Strategy

### Using Organizational Channels to Leverage Communication

A Sample Model for the City of Beaverton Natural Hazard Preparedness Focus Groups



Source: Oregon Natural Hazards Workgroup. Partners for Disaster Resistance 5 Year Strategic Plan. 2002.

A total of 14 people attended the focus groups. Ten of the people who attended the focus groups responded to the household survey. The other four respondents were recruited through neighborhood organizations.

The 90-minute focus group session was broken into two sections. The first component, modeled after the focus group technique, included a discussion on the first three main issues of the survey - household risk perception, household preparedness, and willingness to reduce risk. In the discussion, participants were asked to respond to a number of questions regarding their natural hazard preparedness. The second component, modeled after citizen involvement workshops, included an activity that required participants to prioritize both community planning goals and implementation strategies. In the activity, the participants assumed the role of a City Councilor and were asked to prioritize implementation strategies including: education, regulation, acquisition, and incentives. Participants were also asked to rank generic natural hazard planning goals which included: strengthening citizen action, protecting life, protecting property, protecting natural resources, and enhancing emergency services.

Participants were asked to fill out a pre and post-evaluation form to rate the focus group process. For the purposes of this report, the term focus group is used rather than workshop.

## Organization of Focus Group Findings

This appendix is organized into the three sections: the discussion section, the prioritization activity, and the pre and post-evaluation overview.

### *Discussion*

***Reason for Attending:*** This section describes the participant's reasons for attending the focus group.

***Natural Hazard Experience:*** This section includes information about participants' experiences with natural hazards including:

- Hazards that respondents have experienced;
- How the participant was impacted by the experience;
- What hazards they felt the City is at risk from; and
- What concerns they have about natural hazards in their community.

***Preparedness/ Risk Reduction Activities:*** This section provides an overview of the steps participants have taken to prepare for or reduce the risk from natural hazards.

***Willingness to Take Action:*** This section outlines participants' willingness to take further preparedness or risk reduction steps at their home. Participants were asked whether or not they would be willing to make their home more resistant to natural hazards, how much they would be willing to spend to do so, and whether or not they would consider the impacts of natural hazards when purchasing or renting a future home.

***Community-wide Risk Reduction:*** This section outlines potential risk reduction actions that the City could undertake and also provides some insight on who participants feel should be responsible for planning for natural hazards in their community.

### *Prioritization Activity*

***Implementation Strategy Prioritization:*** This section provides the results of the prioritization activity for the implementation strategies which include: education, regulation, acquisition, and incentives.

***Planning Goal Prioritization:*** This section provides the results of the planning goal prioritization which included: strengthening citizen action, enhancing emergency services, protecting life, protecting natural resources, protecting property.

### *Pre and Post-Evaluation Overview*

This section provides information that was gathered through the pre and post-evaluation process.

## **Discussion Section**

The following section outlines the outcomes of the discussion section of the focus group process.

### **Reasons for attending**

Participants were asked to share with the group their reasons for attending the focus group. This question helped in understanding what motivated the individual to participate. Participants in all of the focus groups were concerned about terrorism. Several people came to the focus groups to learn how to protect themselves and their families from terrorist threats. Several attendees had received information about natural hazards from the Tualatin Valley Fire and Rescue, which motivated them to learn more. Several participants were interested in making a 72-hour kit, and in learning about new things to add to 72-hour kits. Many respondents had experience with natural disasters, which caused them to want to prepare for them. One participant had recently moved to Beaverton from the Midwest, and wanted to learn more about hazards in Oregon. Another participant was a first time homeowner, and wanted to know what to do in the event of a natural disaster. One individual worked with a Washington County emergency communications group, and wanted to learn what the city was doing in the natural hazards planning process. Particular concerns included urban fire, earthquake, and landlords not being interested in keeping rental units safe.

### **Natural Hazard Experience**

#### **Have you been affected by natural hazards?**

Participants were asked to indicate whether or not they have been affected by natural hazards in the past. Most of the participants had experienced some sort of natural hazard in their lifetime. Many of the participants had been affected by natural hazards, including the eruption of Mt. St. Helens, earthquakes, and flooding. Several participants witnessed the Columbus Day Storm, while some had witnessed hurricanes on the east coast. One attendee remembered a tornado hitting near Vancouver in the late seventies.

#### **How you been affected by natural hazards?**

Those participants that had been affected were asked about the ways in which they were affected. One participant's home acquired foundation cracks in their home because of subsidence. One person went 21 days without power after a large storm. People remembered that they had to wear masks when St. Helens erupted.

#### **Which hazards could affect Beaverton in the future?**

Participants were asked to indicate which hazards they thought Beaverton was most at risk to. Hazards that participants mentioned included: windstorms, earthquakes, landslides, wildfire, and flooding.

This question also brought up several discussions about how people prepare for natural hazards. For example, some felt that it is difficult to get people to prepare for something that think will never happen. Many people think Oregon does not have earthquakes. People also said that the media often puts out misinformation, and people have a hard time knowing what to do with it. It was also brought up that earthquake insurance is very expensive. Participants felt that the average person could not buy earthquake insurance.

### **Are you concerned about hazards?**

Asking whether or not participants were concerned about natural hazards in their community followed the question above. Participants were asked to describe their concerns. All participants indicated that they were concerned about natural hazards. Their concerns included: earthquakes, windstorms, flooding in creeks, effectiveness of communication, the ability of the population to be mobile, young people with children, and ability to contact family members.

## **Preparedness / Risk Reduction Activities**

### **Have you taken steps to prepare for disasters/reduce risk?**

Individuals were asked what steps, if any, they had taken to reduce the risk posed by natural hazards in their community. Most participants had taken at least minimal steps to prepare for disasters and reduce risk. The level of preparedness varied considerably, from very prepared to not prepared. Many had a 72 -hour kit and fire extinguishers. Some participants had strapped their water heater and stored necessary tools to turn off water and gas in the case of an emergency. A few had a back-up power sources, and some had stored water. A few participants had a family plan, though many were concerned about the fact that they did not have a family plan in place. Some had met with neighbors to establish a disaster plan. One participant had braced the second story of their home, and one had secured the foundation of their house.

### **Why have you taken steps?**

To understand the motivations behind taking risk reduction steps, participants were asked why they had implemented the risk reduction strategies listed above. The major reasons that people had for taking steps to prepare were because of articles in newspapers, concerns about terrorism, and experience with natural disasters, particularly Mt. St. Helens. One participant had worked for the Fire Department most of his life, which exposed him to many emergency situations. One person commented, “a disaster would encourage us to prepare more!”

### **Have you formed a family emergency plan?**

In order to gain an understanding of how prepared participants were, they were asked whether or not they had a family emergency plan. Most participants had not finished their family emergency plan.

### **Is there anything you can do to be more prepared?**

To gain an understanding of how knowledgeable participants were about risk reduction steps, they were asked what else they could do to reduce risk. Most participants felt that there was more they could do to prepare. One subject that people considered to be very important was organizing among neighbors. People talked about the Fire Department getting overwhelmed in a disaster, and how people must be able to look out for themselves in these situations. One participant mentioned neighborhood groups that responded to the Loma Prieta earthquake disaster in San Francisco as a good example of effective neighborhood organization. Many participants felt that they needed to establish an out of state contact in the case of an emergency. Many also said they simply needed to spend more time to prepare. Finally, participants discussed the role church organizations and other community groups getting involved in educating people.

### **Willingness to Take Action**

#### **Would you be willing to make your home more disaster resistant?**

Participants were asked if they would be willing to make their home more resistant to disasters. Most participants would be willing to do basic preparedness activities before they would be willing to make structural changes. Most everyone agreed that there are serious cost concerns when it comes to structural mitigation. People would want to know how much damage a natural disaster would cause and what the probability of a disaster happening before doing structural improvements. One participant prepared his house for Y2K by installing a generator, which was very costly. Individuals indicated that it takes a lot of time and money. Participants agreed that there should be a neighborhood plan – people in the neighborhood need to know who has the generators, who has the provisions, etc. Many people also do not want to have to think too much about emergency preparedness. As one participant said, “I need someone to spoon feed me.”

#### **How much money would you be willing to spend to do so?**

Following the question about making homes more disaster resistant, participants were asked to indicate how much they would be willing to spend to make their home more disaster resistant. Participants had difficulty with this question because they did not know how much certain mitigation measures would cost. As a result, few participants responded to this question. One participant said it depends on income- \$100 dollars per month was offered as a suggestion. Another asked, “At what point do you stop spending money?” The participant was willing to do a 72-hour kit but was hesitant about doing structural retrofits. One participant would do whatever he could do himself. For most participants there was a trade off between time and money. Either they had the time but not the money or they had the money but not the time to complete any of the activities.

## **If you were buying a home, would you be willing to pay more for a disaster resistant home?**

Participants were asked if they would be willing to pay more for a home that had disaster resistant features. Many participants were willing to spend more, but only to a certain point. Some people felt they do not have the means to pay more.

## **Community-wide Risk Reduction**

### **What steps should Beaverton take in mitigating natural hazards?**

In an effort to gain public input of steps that the City could take to reduce risk in the future, participants were asked to provide mitigation activities the City could implement. Participants felt that education through flyers and brochures was an important activity. People suggested establishing a voluntary program whereby emergency/hazard experts come to people's homes to inspect for risk. People felt that a better inventory of resources and more knowledge about potential impacts is important. Also, one person felt that Washington County is overall very prepared for disasters. Participants also suggested that the City work with community organizations in order to improve coordination and education.

### **Who has the primary responsibility in reducing risk?**

Participants were asked to indicate who in the community has the primary responsibility to reducing the risks posed by natural hazards. Participants felt that individual citizens had primary responsibility along with the community. One participant said that they used to think the federal government was responsible, but not anymore. People were concerned that because sense of community is lacking, it is hard to organize on a local level. This may get in the way of communities pulling together to prepare for disaster. Another participant suggested that the City's role was in educating the public and coordinating activities and programs.

## **Prioritization Activity**

The prioritization activity was developed in order to prioritize plan goals and implementation strategies.

### **Implementation Strategy Prioritization**

*"The purpose of the next activity is to determine your preferred method of achieving natural hazard planning goals. Your community is in the process of developing a plan to reduce the community's risks from natural hazards. The planning team has identified a number of plan goals that will help reduce the community's risk from natural hazards. They are: protecting life, protecting property, protecting natural resources, enhancing emergency services, and strengthening citizen action.*

*Congratulations! You have just been elected to the City Council. At tonight's council/board meeting, you and your fellow Councilors/Commissioners have been asked to decide how the*

*community can meet the plan goals that were previously identified. There are 4 methods for achieving the goals: education, regulation, acquisition, and incentives. For each of the plan goals, you will be given a stack of money. Your job is to spend the money on the method of achieving the goals that you prefer. You should place the money in the envelope(s) that matches the method(s) that you prefer. For instance, you may place all your money on one method or distribute the money among the methods in any combination that matches your preferences for each of the goals. It is important to note that all 4 methods may not be applicable to all 5 goals. Each goal is presented on an individual poster and includes a definition of the goal as well as some examples for each of the methods. I will now give you a brief demonstration.”*

*“This board is for the goal of strengthening citizen action. The color of the board and the color of the money match, so on the purple board, I would use my purple money. Here is the definition of the goal. Here are the examples for each of the methods. If I only supported using incentives as a means to strengthen citizen action, I would put all the money in the incentives envelope. If I support both but prefer one over the other, I would distribute my dollars in both envelopes with more money in the one that I preferred over the other.”*

*“At this time, please double check your envelopes, you should have a stack of red, orange, green, blue, and purple money. Also note that each color set has a different number of bills. You will have 12 minutes to make your decision and place your money on the boards for all 5 goals. Feel free to ask questions at any time if you have them.”*

*“Time is up, we are now going to move onto the next portion of the activity. We would now like you to prioritize the goals that you just worked with. I will now share with you the scenario.”*

Table D-1 illustrates the dollars that were spent on each of the implementation strategies for each of the five generic plan goals. For each of the plan goals, education was the most popular implementation strategy.

**Table D-1. Focus Group Scenario # 1 Results**

Goal	Implementation Strategies			
	Education	Incentives	Acquisition	Regulation
Strengthening Citizen Action	\$7,000	\$5,666	N/A	N/A
Enhancing Emergency Services	\$4,500	\$3,250	N/A	\$4,250
Protecting Natural Resources	\$4,000	\$2,800	\$3,400	\$2,800
Protecting Property	\$5,000	\$2,800	\$800	\$4,400
Protecting Life	\$5,750	\$3,500	N/A	\$3,750

Source: ONHW/CPW. Citizen Focus Groups. 2003



## Planning Goal Prioritization

*“After several months of developing the plan to reduce the community’s risk to natural disasters, the plan has been approved by the City Council and is ready to be put into practice. However, changes in the state and local economy have led to budget cuts and now the budget can only support 3 of the plan goals. In tonight’s Council/Board meeting you have been asked to decide which three plan goals are the most important to you. If the cost of implementing each of the goals is equal, which are the most important? You will be using this ballot to vote for the 3 goals that you think are most important. Place a 1 next to the goal with the highest priority, a 2 next to the goal with second highest priority and a 3 next to the goal with the third highest priority. You will have 5 minutes to cast your vote and return it to the ballot box right here. Feel free to browse the posters again to make your decision.*

*Time is up, we have about 20 minutes left in our session tonight. We would like to close with a brief presentation on some activities you can take at your home to prepare for and reduce risks posed by natural hazards. We would also like to follow up with a post evaluation.”*

Table D-2 represents the number of votes each goal received during the voting portion of the activity. People were given a sheet, and asked to place a number 1, 2, or 3 next to the goals that they considered most important when dealing with natural hazards. Participants were asked to only rank their top three choices. This table presents the total number of votes, and their rank, for each goal as completed by all three of the focus groups. Protecting life, enhancing emergency services, and strengthening citizen action were received the most votes overall.

**Table D-2. Focus Group Scenario #2 Results**

Goal	Total Votes	Highest Priority	2nd Highest Priority	3rd Highest Priority
Strengthening Citizen Action	7	2	2	3
Enhancing Emergency Services	10	2	5	3
Protecting Natural Resources	5	0	1	4
Protecting Property	5	1	2	2
Protecting Life	11	7	3	1

Source: Oregon Natural Hazards Workgroup. Citizen Focus Group. 2003.

## Pre and Post-evaluation Overview

The focus groups were not only a way to inform the City of citizens needs and perceptions when it comes to natural hazards, but it was also a way for citizens to learn from one another. In an effort to gauge any changes in participant knowledge, a pre-evaluation was distributed before the session and a post-evaluation was distributed after the

session. In the pre-evaluation, participants were asked to respond to statements regarding the importance of citizen involvement in planning for natural hazards as well as whether or not they were aware of steps that could take to reduce their risks. Participants were also asked whether they have taken any steps at their home and if not, why. Respondents were also asked to identify what type of information regarding natural hazards they would like to receive in the future. The post-evaluation was identical to the pre-evaluation, except that it also asked a few questions regarding the process in an effort to understand how the participants liked or disliked the process. Responses to these questions can be used to better the process in future mitigation planning processes. A total of thirteen individuals participated in the pre and post-evaluations.

On the pre-evaluation, participants were asked whether they received the household preparedness survey, eight had, three had not and two were not sure. This question was included in order to assess which recruitment strategy brought the individual to the focus group. If they did not receive the survey, it is assumed that they were recruited through the NACs.

In general, most participants either strongly agreed or agreed with each of the statements provided in either the pre or post-evaluation form. No respondent selected strongly disagree for any of the statements. The post-evaluation was used to see if there had been any change in participant's feelings about the general citizen involvement statements. To find a change, the total number of pre-evaluation responses for each option (i.e. "strongly agree" or "neutral") were calculated and compared to the total number of post-evaluation responses for the same statements. A positive value indicates that the total number of responses in the post-evaluation was higher than the total number of responses to that statement in the pre-evaluation. A negative value indicates that the total number of responses in the post-evaluation was lower than the total number of responses to that statement in the pre-evaluation. For example, in Table D-3, the first statement about informing citizens about risk indicates a positive two for the "strongly agree" and a negative two for the "agree". What this means is that two individuals changed their responses from "agree" to "strongly agree" between the pre and post-evaluations. Table D-3 illustrates the change in responses from the pre-evaluation to the post-evaluation for each of the statements.

**Table D-3. Focus Group Pre/Post-Evaluation Change**

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
It is important for citizens to be informed about their risks	2	-2	--	--	--
It is important for citizens to be involved in planning for natural hazards	-1	1	1	-1	--
It is important for citizens to assist in developing community priorities*	-2	1	--	--	--
It is important for citizens to actively reduce their risks	-2	--	2	--	--
It is important to plan for hazards at my home	3	-3	--	--	--
It is important to plan for hazards in my community	1	-1	--	--	--
I would be more supportive of a plan that I helped to develop	1	--	-1	--	--

Source: Oregon Natural Hazards Workgroup. Citizen Focus Group. 2003.

\* The change does not balance out for this statement because one respondent did not respond to this statement in the post-evaluation.

On the individual level, three participants have one positive change in their responses; one participant had two positive changes; and three participants had three positive changes. On the other hand, three participants had one negative change; two participants had two negative changes; and one participant had three negative changes. Nine out of thirteen participants changed their responses to at least one of the statements during the course of the evening.

During both the pre and post-evaluations, participants were asked whether or not they were aware of steps they could take to make their home safer from natural hazards. In the pre-evaluation, three individuals indicated that they were not aware of any steps, while ten individuals indicated that they were aware. In the post-evaluation, the number of individuals still unaware of mitigation steps had reduced to one. A follow-up question to this first one asked whether they had taken any steps at their home. Eight individuals indicated that they had not taken any steps to make their home more resistant to natural hazards while five individuals had. When asked why they had not taken any steps, common responses included not having enough time, it was not a priority, they had not thought to do anything and they lacked the information they needed in order to be persuaded to take action. This “why not” question is important in the mitigation planning process because it provides insights on what might motivate people to take action. For instance, if residents understood their risk and also understood that they could take steps to reduce the risk, more homes in the community could become more disaster resistant. No one mentioned that money was the factor stopping him or her from taking action.

A final general preparedness question asked what type of information or resources would they be interested in receiving in the future. The number one response was information about steps that households can take to reduce risk, followed by information about steps that the City is taking to reduce risks community wide.

The post-evaluations also included questions regarding the actual focus group process. Participants were asked to rank the components and quality of the focus groups session. This information is helpful in providing recommendations on how to better the process in the future. The following table displays the number of responses for each of the ranking of the various focus group components.

**Table D.4. Focus Group Component Evaluation Results**

Component	Just Right	Neutral	Needs
			Improvement
Length	13	0	0
Discussion	11	1	0
Facilitators	11	2	0
Location	10	3	0
Time	9	3	1
Introduction	9	3	0
Activity	8	4	1
Education/Resources	7	4	1

Source: Oregon Natural Hazards Workgroup. Citizen Focus Group. 2003.

As Table D.4 illustrates, the length of the session was the highest ranked feature, followed by both the discussion section and the facilitators. The low “just right” ranking of the education/resource section is understandable because time constraints prohibited the full presentation of the planned education materials during the focus group on both evenings. This was compensated for by presenting each of the participants with a packet of information on household preparedness steps, preparedness resources and web links, as well as information on mitigation planning concepts. Another interesting result from this question was the lower ranking of the activity session of the focus group. This is particularly interesting because the activity component can provide important information to the planning steering committee on citizen preferences for both goals and implementation strategies. This result might be explained by the lack of a clear link between what the participants were doing in the activity and the statement above about how the steering committee could use the information. Had this connection been effectively communicated to the participants, the response to this question might have been different.

Participants were also given an opportunity to share what they saw as the strengths and weaknesses of both the discussion and activity section. The following tables list all the comments provided by participants.

**Table D.5. Focus Group Discussion Section Open-ended Results**

<b>Discussion Section</b>	
<b>Strengths</b>	<b>Weaknesses</b>
Very well presented	Not going deep enough into responses
Lots of talent	More follow-up questions
Good communication skills	Would have liked more citizen participation
Good thought provoking questions	Seems more questions should be asked, maybe yes/no questions
Group size was conducive to participation	What next?
Good cookies	
Small group allowed everyone to be involved	
Kept a good discussion going	
Good follow-up to responses	
Open discussion for everyone to share their thoughts and experiences	
Discussion are better	
Good – nice to hear other’s experience and preparation for disasters	
Enjoyed frankness of discussion	
Asked important questions	

Source: Oregon Natural Hazards Workgroup. Citizen Focus Group. 2003.

**Table 4.6. Focus Group Activity Section Open-ended Comments**

<b>Activity Section</b>	
<b>Strengths</b>	<b>Weaknesses</b>
Makes one think about those things	Not enough direct discussion regarding specific preparedness for individual homes and communities
Well organized	Results were not made clear
Effective communication tool	Need to receive the responses
Unique activity	Less scripted
Good – it sure make you think about issues, the cost and what will motivate people to take action	More questions posed to the group so they are sure they understand
A lot of points to think about	Took a while to figure out what to do
Like the activity – made me think	Forget the monopoly money exercise
Good thought provoking goals	Seems remote
	Take more time to go through the example

Source: Oregon Natural Hazards Workgroup. Citizen Focus Group. 2003.

For the most part, the comments tended to be fairly positive. Many open-ended comments about the activity section concur with the findings of the previous question that the activity section was not overwhelmingly effective from the participant’s perspective. Based on the evaluation of the activity section, it seems that the activity might be better suited for stakeholder groups or the steering committee rather than citizens.