



## Appendix D: Planning Process Documentation and Plan Maintenance

### Planning Process Documentation

#### Risk Factor Exercise

The Risk Factor (RF) exercise was collectively done by the technical working groups as part of their working group meetings. The RF approach combines historical data, local knowledge, and consensus opinions to produce numerical values that allow identified hazards to be ranked against one another (the higher the RF value, the greater the hazard risk). RF values are obtained by assigning varying degrees of risk to five categories for each hazard: probability, impact, spatial extent, warning time, and duration. Each degree of risk is assigned a value ranging from 1 to 4 and a weighing factor for each category. To calculate the RF value for a given hazard, the assigned risk value for each category is multiplied by the weighting factor. The sum of all five categories equals the final RF value, as demonstrated in the example equation below:

$$\text{RF Value} = [(\text{Probability} \times .30) + (\text{Impact} \times .30) + (\text{Spatial Extent} \times .20) + (\text{Warning Time} \times .10) + (\text{Duration} \times .10)]$$

The criteria utilized as part of the RF exercise are summarized below in Table D.1.

Table D.1. Risk Assessment Category

Risk Assessment Category	Level	DEGREE OF RISK		Index	Weight Value
		Criteria			
<b>PROBABILITY</b> <i>What is the likelihood of a hazard event occurring in a given year?</i>	UNLIKELY	LESS THAN 1% ANNUAL PROBABILITY		1	30%
	POSSIBLE	BETWEEN 1 & 10% ANNUAL PROBABILITY		2	
	LIKELY	BETWEEN 10 & 100% ANNUAL PROBABILITY		3	
	HIGHLY LIKELY	100% ANNUAL PROBABILITY		4	
<b>IMPACT</b> <i>In terms of injuries, damage, or death, would you anticipate impacts to be minor, limited, critical, or catastrophic when a significant hazard event occurs?</i>	MINOR	VERY FEW INJURIES, IF ANY. ONLY MINOR PROPERTY DAMAGE & MINIMAL DISRUPTION ON QUALITY OF LIFE. TEMPORARY SHUTDOWN OF CRITICAL FACILITIES.		1	30%
	LIMITED	MINOR INJURIES ONLY. MORE THAN 10% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR MORE THAN ONE DAY.		2	



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	RITICAL	MULTIPLE DEATHS/INJURIES POSSIBLE. MORE THAN 25% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR MORE THAN ONE WEEK.	3	
	CATASTROPHIC	HIGH NUMBER OF DEATHS/INJURIES POSSIBLE. MORE THAN 50% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR 30 DAYS OR MORE.	4	
<b>SPATIAL EXTENT</b> <i>How large of an area could be impacted by a hazard event? Are impacts localized or regional?</i>	NEGLIGIBLE	Single Jurisdiction	1	20%
	SMALL	Multiple Jurisdictions	2	
	MODERATE	Entire Region of State	3	
	LARGE	Entire State	4	
<b>WARNING TIME</b> <i>Is there usually some lead time associated with the hazard event? Have warning measures been implemented?</i>	MORE THAN 24 HRS	SELF DEFINED	1	10%
	12 TO 24 HRS	SELF DEFINED	2	
	6 TO 12 HRS	SELF DEFINED	3	
	LESS THAN 6 HRS	SELF DEFINED	4	
<b>DURATION</b> <i>How long does the hazard event usually last?</i>	LESS THAN 6 HRS	SELF DEFINED	1	10%
	LESS THAN 24 HRS	SELF DEFINED	2	
	LESS THAN 1 WEEK	SELF DEFINED	3	
	MORE THAN 1 WEEK	SELF DEFINED	4	



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As part of the RF exercise, significant events were defined as damaging events in populated areas (when applicable). Each TWG performed this exercise for only those hazards that the group was assigned. The results of the exercise are presented below in Figures D.2 and D.3.

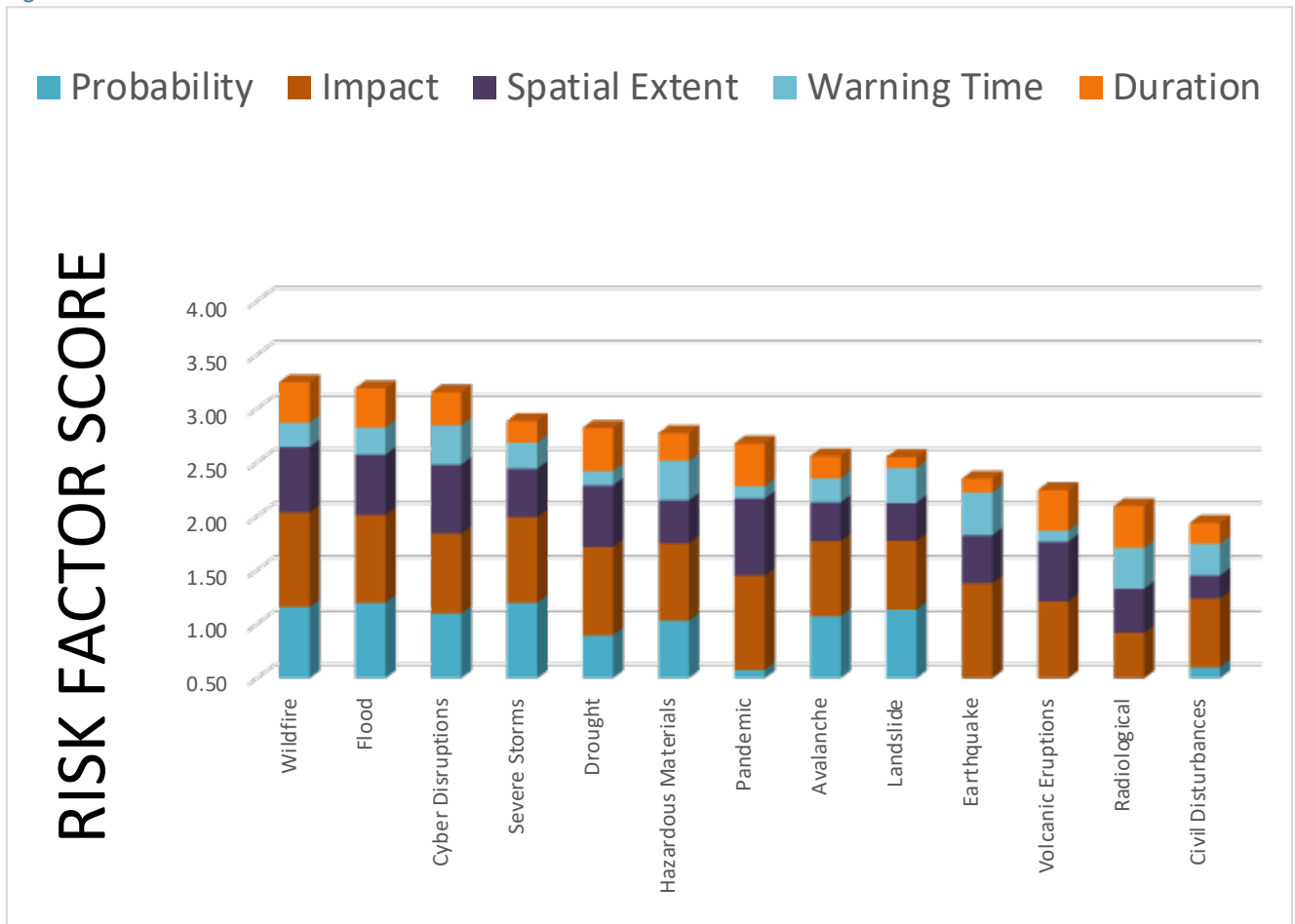
**Figure D.2. Weighted Results of Risk Assessment**

Rank	Hazard	Probability		Impact		Spatial Extent		Warning Time		Duration		RF Factor
1	Wildfire	3.87	1.16	2.93	0.88	3.03	0.61	2.27	0.23	3.75	0.37	3.25
2	Flood	4.00	1.20	2.72	0.82	2.80	0.56	2.52	0.25	3.63	0.36	3.19
3	Cyber Disruptions	3.67	1.10	2.47	0.74	3.19	0.64	3.66	0.37	3.08	0.31	3.16
4	Severe Storms	4.00	1.20	2.65	0.80	2.25	0.45	2.43	0.24	2.00	0.20	2.89
5	Drought	2.99	0.90	2.74	0.82	2.86	0.57	1.33	0.13	4.00	0.40	2.82
6	Hazardous Materials	3.45	1.03	2.39	0.72	2.00	0.40	3.68	0.37	2.55	0.26	2.78
7	Pandemic	1.92	0.58	2.92	0.88	3.58	0.72	1.14	0.11	3.97	0.40	2.68
8	Avalanche	3.59	1.08	2.32	0.70	1.79	0.36	2.24	0.22	2.06	0.21	2.56
9	Landslide	3.79	1.14	2.13	0.64	1.75	0.35	3.27	0.33	1.00	0.10	2.55
10	Earthquake	1.60	0.48	3.00	0.90	2.23	0.45	3.99	0.40	1.29	0.13	2.35
11	Volcanic Eruptions	1.00	0.30	3.05	0.91	2.77	0.55	1.03	0.10	3.77	0.38	2.25
12	Radiological	1.11	0.33	1.96	0.59	2.04	0.41	3.81	0.38	3.88	0.39	2.10
14	Civil Disturbances	2.00	0.60	2.13	0.64	1.07	0.21	2.95	0.30	1.93	0.19	1.94

The overall results were a bit surprising to the TWGs in some ways and rather expected in others. The end RF Values placed some of the major hazards facing the State, such as wildfire, flood, and drought, high on the scale. This was expected and matches the data and results that resulted from the risk and vulnerability assessments. But earthquake, one of the State’s top 3 hazards, placed near the bottom of the rankings. The human-caused hazards fell all across the board, with cyber disruptions coming in near the top.

The discussions generated by the exercise proved to be more beneficial to the groups than the resulting end values. Most of the TWGs chose to revisit the exercise multiple times over the course of the Plan update. Lessons learned from the activity pointed out the fact that this type of exercise presents the particular group’s perception of each hazard. It is difficult to equate a worst-case scenario across all of the varying types of hazards faced by the State, especially when comparing natural versus human-caused/technological hazards. The large size of Idaho also makes it a challenge when defining the spatial extent of a hazard.

Figure D.3. Risk Factor Exercise Result



### Consequence Analysis Exercise

The Consequence Analysis Exercise was performed by the technical working groups and focused on three scenario events – one each for flood, earthquake and wildfire, the three major hazards identified in the plan. The results of these exercises can be found in Chapter 3, under the Vulnerability Analysis and Loss Estimation subsection for each hazard.

### Summary

The following table provides a high-level summary of the Consequence Analysis Evaluation. The average consequence ranking across all six (6) systems was calculated for each hazard scenario, across both the short-term and long-term.

What first stands out is that overall the short-term consequences are generally believed to be greater than the long term, for every scenario evaluated. It should be cautioned, however, that these are averages across all systems and individual system results may not always follow this trend.



Hazard Scenario	Short-Term	Long-Term
Avalanche	3.23	1.01
Civil Disturbance	3.00	1.31
Cyber Disruption	3.24	1.96
Dam/Levee/Canal Failure	4.71	3.50
Drought	2.73	2.33
Earthquake	4.25	3.70
Flooding	4.37	2.97
Hazardous Materials	3.50	2.00
Landslide	3.91	2.41
Lightning	2.43	0.64
Pandemic	2.81	1.20
Radiological	3.56	2.53
Severe Storm	3.51	2.57
Volcanic Eruption	3.46	1.80
Wildfire	4.24	3.61
Wind/Tornado	3.49	1.40

### *Public Outreach Documents*

#### **Hazard Survey**

The Hazard Survey results were taken and aggregated into themes, which were then used to help determine best mitigation action items going forward. The aggregation chart can be found in Figure D.4. of the Survey Results and Public Comments section below.



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What is the name of your community and ZIP code?

Answered: 95 Skipped: 0

**RESPONSES (95)** TEXT ANALYSIS TAGS (0)

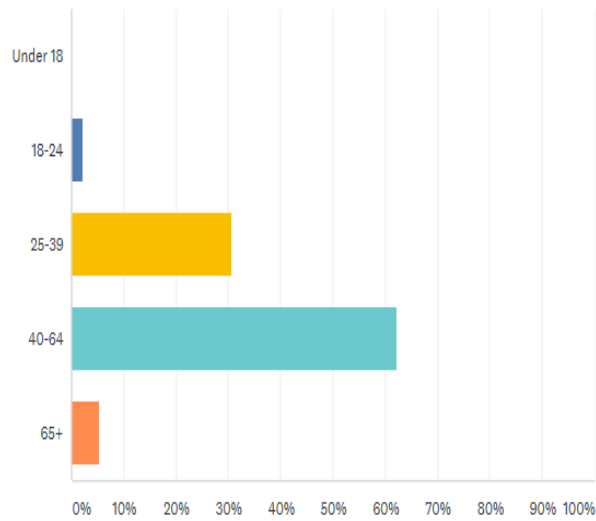
Add Tags  Filter by Tag

Showing 95 responses

<input type="checkbox"/> Post Falls 83854 5/4/2018 5:07 PM	<a href="#">View respondent's answers</a>	<a href="#">Add Tags</a>
<input type="checkbox"/> 83843 5/3/2018 7:37 AM	<a href="#">View respondent's answers</a>	<a href="#">Add Tags</a>
<input type="checkbox"/> Eagle 83616 5/2/2018 2:26 PM	<a href="#">View respondent's answers</a>	<a href="#">Add Tags</a>
<input type="checkbox"/> 83655 5/2/2018 12:03 PM	<a href="#">View respondent's answers</a>	<a href="#">Add Tags</a>
<input type="checkbox"/> 83544 5/2/2018 10:38 AM	<a href="#">View respondent's answers</a>	<a href="#">Add Tags</a>
<input type="checkbox"/> Weiser 83672		

## What is your age?

Answered: 95 Skipped: 0

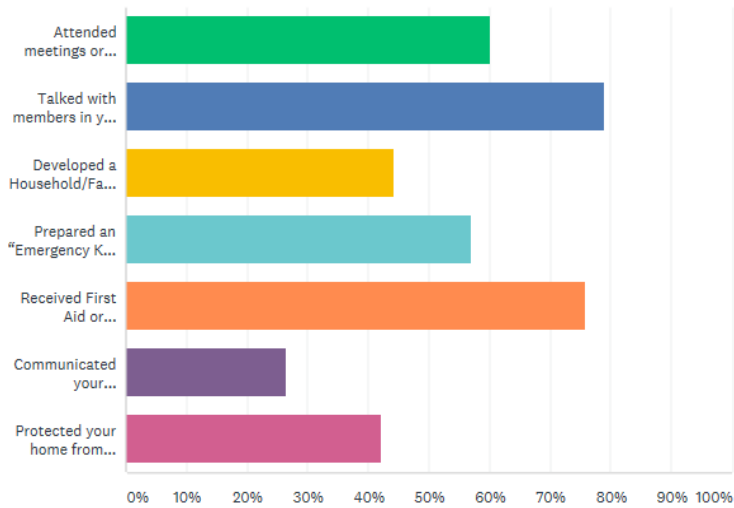




# Appendix D

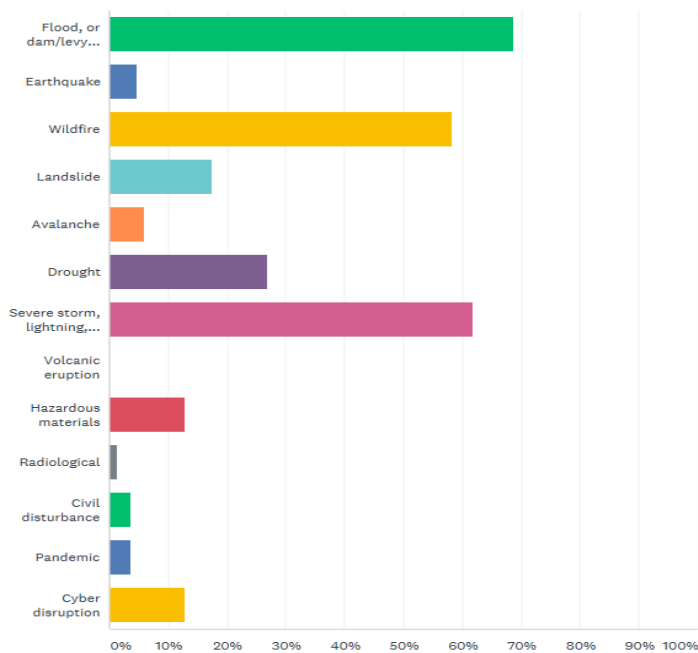
Which of the following preparedness activities have you done in your household? Mark all that apply.

Answered: 95 Skipped: 0



Indicate which types of disasters have affected your community since 2012. Mark all that apply.

Answered: 86 Skipped: 9

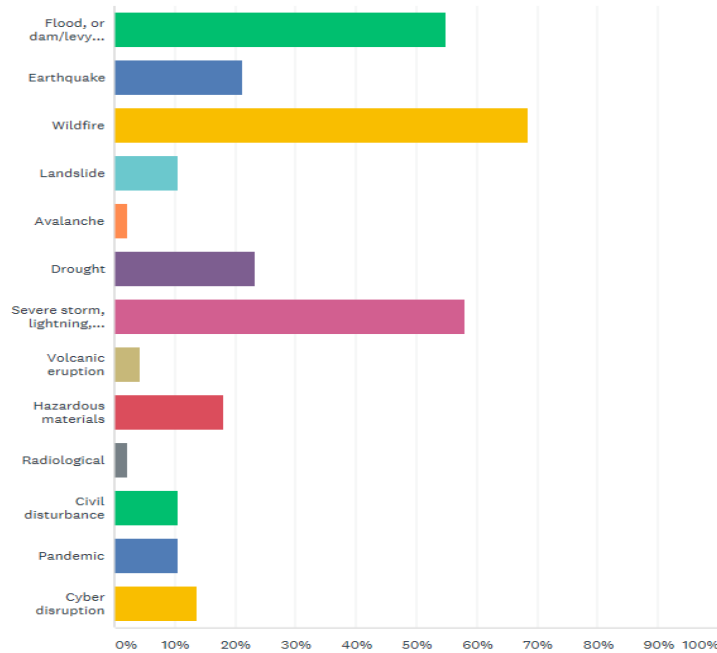




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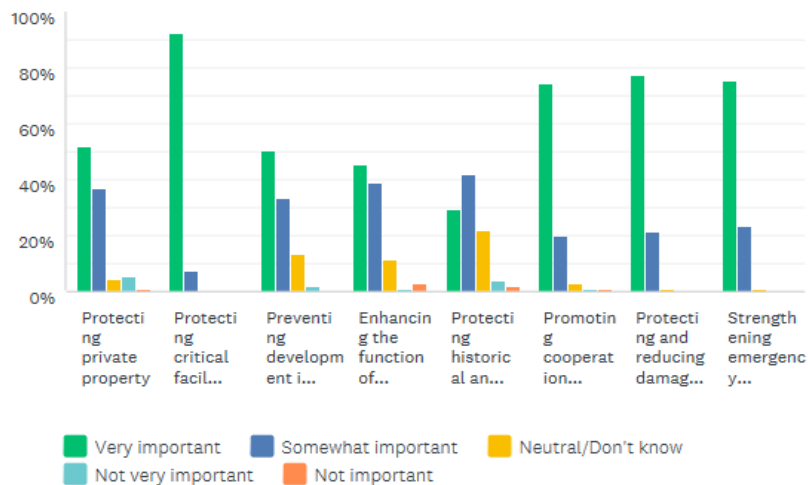
Rank the top three hazards that you feel pose the most serious threat to your community. Please only rank the top THREE.

Answered: 95 Skipped: 0



Natural hazards can have a significant impact on a community, but planning for these events can help lessen the impacts. The following statements will help determine citizen priorities for planning. Please tell us how important each one is to you.

Answered: 95 Skipped: 0



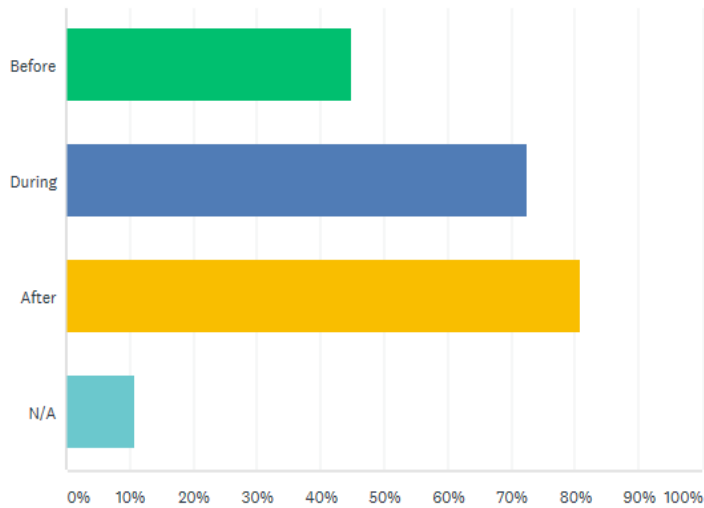




## Appendix D

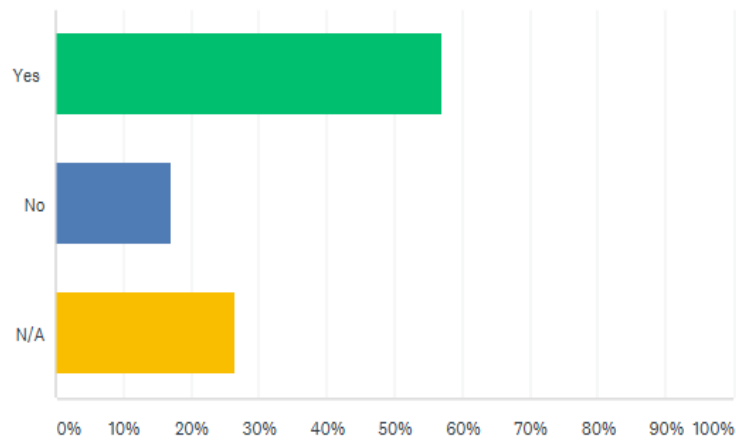
Do you expect the government to help you before, during, or after a disaster?  
Mark all that apply

Answered: 94 Skipped: 1



Does the state support your communities ability to prepare for a disaster?

Answered: 95 Skipped: 0



In your opinion, what could the State of Idaho do to help your community reduce or eliminate risk of future hazard damages in your community?

Answered: 64 Skipped: 31



Any additional comments or concerns? (i.e. community response capability and equipment, ingress/egress routes, multiple disaster impacts to community and environment, surrounding vegetation or lack of, etc.)

Answered: 32 Skipped: 63

## Draft Plan Survey

The Draft Plan Survey questions are below, and the results are in the following Survey Results and Public Comments section.

The screenshot shows a survey titled "2018 Idaho Hazard Mitigation Plan DRAFT Feedback". It includes a header with the Idaho Department of Emergency Management logo and a "PAGE TITLE" button. The survey questions are:

1. What is the name of your community and Zip Code?
2. What is your age?
3. Where did you hear about this survey from?
4. What feedback do you have for Chapter 1: Hazard Summary and Mitigation Strategy? Click here to visit [Chapter 1](#)  
Positive Feedback   
Areas for Improvement   
Other



5. What feedback do you have for Chapter 2: State of Idaho Profile? Click here to visit [Chapter 2](#)

Positive Feedback

Areas for Improvement

Other

6. What feedback do you have for Chapter 3: Hazards in Idaho? Click here to visit [Chapter 3](#)

Positive Feedback

Areas for Improvement

Other

7. What feedback do you have for Chapter 3.1: Risk Assessment, Wildfire? Click here to visit [Chapter 3.1](#)

Positive Feedback

Areas for Improvement

Other

8. What feedback do you have for Chapter 3.2: Risk Assessment, Flood? Click here to visit [Chapter 3.2](#)

Positive Feedback

Areas for Improvement

Other

9. What feedback do you have for Chapter 3.3: Risk Assessment, Severe Storm? Click here to visit [Chapter 3.3](#)

Positive Feedback

Areas for Improvement

Other

10. What feedback do you have for Chapter 3.4: Risk Assessment, Avalanche? Click here to visit [Chapter 3.4](#)

Positive Feedback

Areas for Improvement

Other

11. What feedback do you have for Chapter 3.5: Risk Assessment, Drought? Click here to visit [Chapter 3.5](#)

Positive Feedback

Areas for Improvement

Other

12. What feedback do you have for Chapter 3.6: Risk Assessment, Earthquake? Click here to visit [Chapter 3.6](#)

Positive Feedback



13. What feedback do you have for Chapter 3.7: Risk Assessment, Landslide? Click here to visit [Chapter 3.7](#)

Positive Feedback

Areas for Improvement

Other

14. What feedback do you have for Chapter 3.8: Risk Assessment, Volcanic Eruptions? Click here to visit [Chapter 3.8](#)

Positive Feedback

Areas for Improvement

Other

15. What feedback do you have for Chapter 3.9: Risk Assessment, Civil Disturbances? Click here to visit [Chapter 3.9](#)

Positive Feedback

Areas for Improvement

Other

16. What feedback do you have for Chapter 3.10: Risk Assessment, Cyber Disruption? Click here to visit [Chapter 3.10](#)

Positive Feedback

Areas for Improvement

Other

17. What feedback do you have for Chapter 3.11 Hazardous Materials? Click here to visit [Chapter 3.11](#)

Positive Feedback

Areas for Improvement

Other

18. What feedback do you have for Chapter 3.12: Risk Assessment, Pandemic? Click here to visit [Chapter 3.12](#)

Positive Feedback

Areas for Improvement

Other

19. What feedback do you have for Chapter 3.13: Risk Assessment, Radiological? Click here to visit [Chapter 3.13](#)

Positive Feedback



20. What feedback do you have for Chapter 4: Policies, Programs, and Capabilities? Click here to visit [Chapter 4](#)

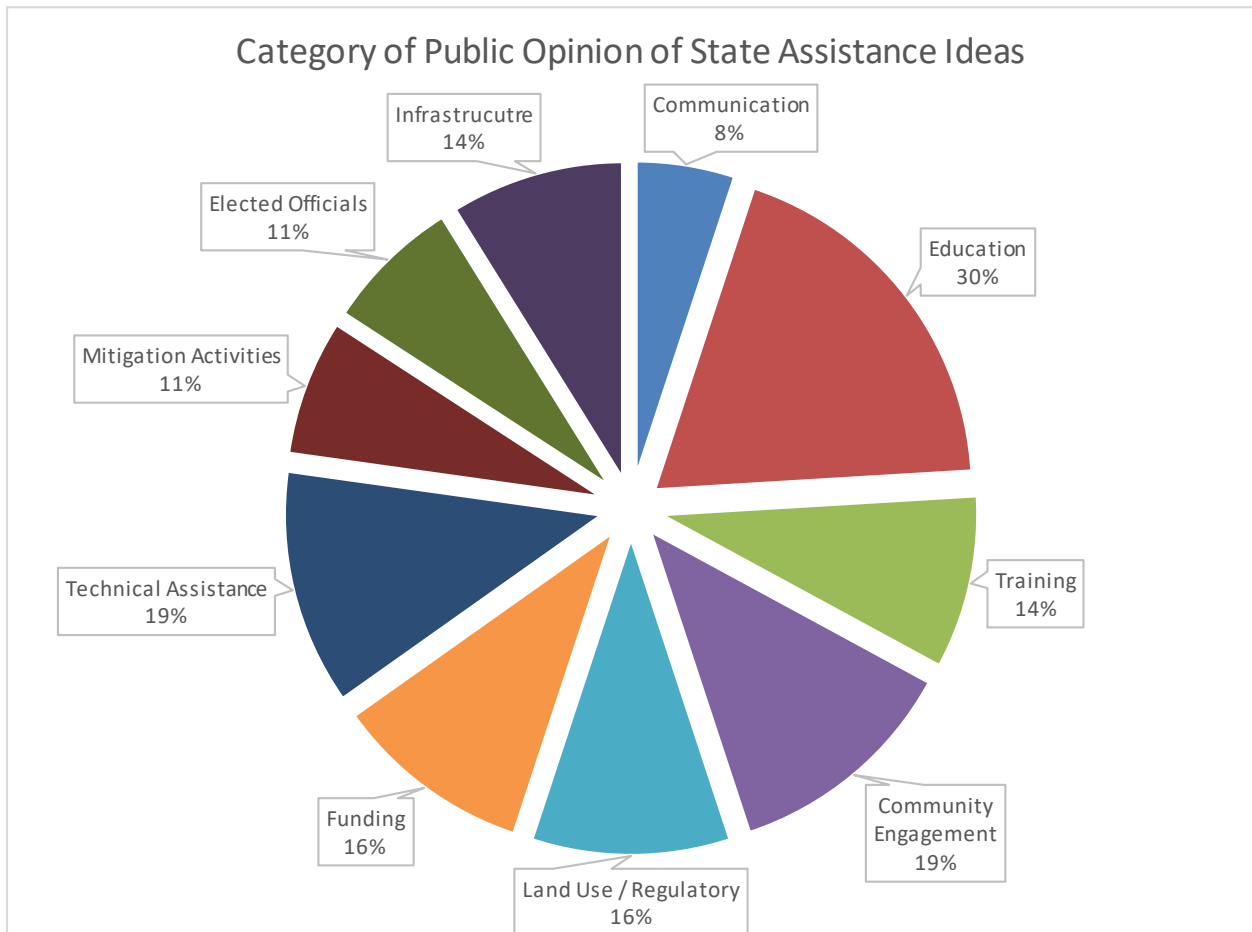
Positive Feedback	<input type="text"/>
Areas for Improvement	<input type="text"/>
Other	<input type="text"/>

## Survey Results and Public Comments

### Hazard Survey

The Hazard Survey public comments were taken and analyzed into main themes, and then tallied for the number of times the themes were addressed. The comments and results are displayed in Figure D.4 below. Figure D.5 contains the list of comments that were aggregated to create the analysis table.

Figure D.4. Hazard Survey Public Comments Rollup Categories







**Draft Plan Survey**

There were limited responses on the Draft Plan Survey, as only 2 respondents wrote comments. The comments were reviewed, and are displayed below.

Respondent ID	What is the name of your community and Zip Code?	What is your age?	Where did you hear about this survey from?	Mitigation Strategy? Click here to visit Chapter 1	What feedback do you have for Chapter 2: State of Idaho Profile? Click here to visit Chapter 2	What feedback do you have for Chapter 3: Hazards in Idaho? Click here to visit Chapter 3	Areas for Improvement	What feedback do you have for Chapter 3.1: Risk Assessment, Wildfire?	What feedback do you have for Chapter 3.2: Risk Assessment, Flood? Click here to visit Chapter 3.2	What feedback do you have for Chapter 3.3: Risk Assessment, Severe Storm? Click here to visit Chapter 3.3	What feedback do you have for Chapter 3.4: Risk Assessment, Avalanche?	What feedback do you have for Chapter 3.5: Risk Assessment, Drought?	What feedback do you have for Chapter 3.6: Risk Assessment, Earthquake?	What feedback do you have for Chapter 3.7: Risk Assessment, Landslide?	What feedback do you have for Chapter 3.8: Risk Assessment, Volcanic Eruptions?	What feedback do you have for Chapter 3.9: Risk Assessment, Civil Disturbances?	What feedback do you have for Chapter 3.10: Risk Assessment, Cyber Disruption?	What feedback do you have for Chapter 3.11: Hazardous Materials? Click here to visit Chapter 3.11	What feedback do you have for Chapter 3.12: Risk Assessment, Pandemic? Click here to visit Chapter 3.12	What feedback do you have for Chapter 3.13: Risk Assessment, Radiological? Click here to visit Chapter 3.13	What feedback do you have for Chapter 4: Policies, Programs, and Capabilities? Click here to visit Chapter 4	
	Open-Ended Response	Open-Ended Response	Open-Ended Response	Positive Feedback	Positive Feedback	Positive Feedback		Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	Positive Feedback	
10068576171	Ada 83705	52	Work	Good	Very interesting	A lot of information		Scary	Good	Good	Good	Good	Scary	Good	Good	Good	Good	Good	Good	Good	Good	Didn't really read it
10064740179							Table 3.E is missing the Department of Water Resources. It is part owner in the UofI building in Boise and leases out 5 additional buildings.															



Question 6 had a correction listed in the comments, and this was corrected in the plan, in Chapter 3.0, Table 3.E. were limited responses on the Draft Plan Survey, as only 2 respondents wrote comments. The comments were reviewed, and are displayed below.

## Q6 What feedback do you have for Chapter 3: Hazards in Idaho? Click here to visit Chapter 3

Answered: 2 Skipped: 0

ANSWER CHOICES		RESPONSES
Areas for Improvement		50.00% 1
Other		0.00% 0
Positive Feedback		50.00% 1

#	POSITIVE FEEDBACK	DATE
1	A lot of information	6/15/2018 8:27 AM

#	AREAS FOR IMPROVEMENT	DATE
1	Table 3.E is missing the Department of Water Resources. It is part owner in the Uof I building in Boise and leases out 5 additional buildings.	6/13/2018 10:08 AM

#	OTHER	DATE
	There are no responses.	

## Plan Maintenance and Update Processes

### Plan Maintenance

Section 201.4(c) requires that the SHMP be reviewed, revised, and submitted for approval to the Regional Administrator of FEMA every five years. The regulations require a plan maintenance process that includes an established method and schedule for monitoring, evaluating, and updating the plan. The Idaho Office of Emergency Management – Mitigation Section is the agency primarily responsible for the plan maintenance, but it will utilize the review and comments from other entities as part of the maintenance process.

The Idaho SHMP is a living document and will be reviewed and potentially updated constantly. The plan will be revised if the conditions under which the plan was developed change, such as new or revised State policies, a major disaster, or the availability of funding. This section describes how the SHMP will be monitored, evaluated, and updated.

The SHMP Executive Committee will meet annually in the fall to evaluate the SHMP. Minutes from the 2014 thru 2018 meetings are included at the very end of Appendix G. The Executive Committee will evaluate the Plan based on the following criteria:

- How much progress has been made on mitigation actions and projects
- Implementation problems (technical, political, legal, and financial)





- Relevancy of goals, objectives, and actions and whether they need to be discontinued or changed
- Level of involvement by the public and other agencies
- Accuracy and precision of the risk assessments, availability of new data, and whether such data needs to be reflected in the plan immediately

After each major disaster in Idaho declared by the President, the IOEM Mitigation Section will incorporate an action for the disaster in the Mitigation Strategy, to evaluate and assess whether the SHMP addresses the reality resulting from the disaster (i.e., does the risk assessment need updated, are the goals/objectives/actions are still relevant). This evaluation will be provided to the Executive Committee.

### Plan Update

Every five years, as required by 44 CFR § 201.4, the State Hazard Mitigation Officer (SHMO) is responsible for submitting the revised SHMP to the FEMA Regional Administrator and for facilitating the adoption of the plan by the State. The SHMO uses the FEMA Standard State Hazard Mitigation Plan Review Crosswalk as a tool for updates with a review panel and a secondary reviewer, and submits the revised Plan with the completed crosswalk to FEMA.

IOEM will revise the Plan more frequently if the conditions under which the Plan was developed materially change through new or revised State policy, a major disaster, or availability of funding. Future updates of the SHMP will involve the technical working groups and their recommendations.

The method to update the Plan is for planning committee members to utilize the on-line planning tool to edit sections as changes are needed. Recommended updates will be vetted through the Executive Committee and technical working groups (as applicable). Recommended updates will then be provided to the IOEM Mitigation Section for consideration. Upon acceptance, the IOEM Mitigation Section will develop the draft updates, circulate draft updates for review to the Executive Committee and technical working groups, incorporate review comments, provide the public with an opportunity to review and comment, and forward the draft plan for final State approval.

### Local Plan Coordination and Linkage

As part of the SHMP update, local plans were assessed, focusing on three areas: risk assessment, mitigation strategy, and local capability. As part of this and previous updates, a database “rolling-up” local plan data was developed and the local plan data was analyzed to ensure that the State mitigation goals and objectives are compatible with local actions and to undertake a comparative analysis of the State risk assessment versus local risk assessments. This data will be continuously updated and incorporated into the 2023 SHMP.

**Population Data (Census Data). Residential Populations.** For the residential population analysis, 2010 Census data and forecasts through 2020 were used to determine the sensitivity and exposure of several



social populations. In particular, this study focused on the total population and included age, race, median age, female population, single mother houses, number of households, housing capital, and tenancy.

While the number of total residents within the hazard zone is important to consider, studies have suggested that demographic characteristics can affect an individual's sensitivity to a hazard event (Morrow, 1999). One demographic that can affect an individual's sensitivity is age. Younger and elderly populations often require special assistance when evacuating hazardous areas. Younger populations, defined here as 5 years of age or younger, often need more assistance and direction when evacuating. Younger populations also do not have the same understanding about hazardous situations as older populations, and thus often do not know how to react. Older populations, defined as over 65 years in age, often require more assistance during evacuations due to possible mobility and health issues. These populations may also need to be evacuated to facilities with specific medical equipment or other special needs facilities.

Gender can also influence an individual's sensitivity to hazard events. Research suggests that women, in general, tend to be more likely to respond to and be prepared for hazard warnings but are more likely to suffer from posttraumatic stress due to hazard events (Wood et al., 2007). Women are also more likely to be single parents and often have lower incomes, which can make recovering from a hazard event more difficult (Morrow, 1999; Wood et al., 2007).

Tenancy is another socioeconomic factor that can affect an individual's sensitivity and exposure to hazards. Certain studies have shown that renters have less of a tendency to prepare for hazard events than homeowners. This behavior could be due to renters having lower incomes, fewer resources to recover, or a lack of concern for a property they do not personally own and care for. Homeowners are more likely to want to protect and preserve what they do own (Wood et al., 2000).

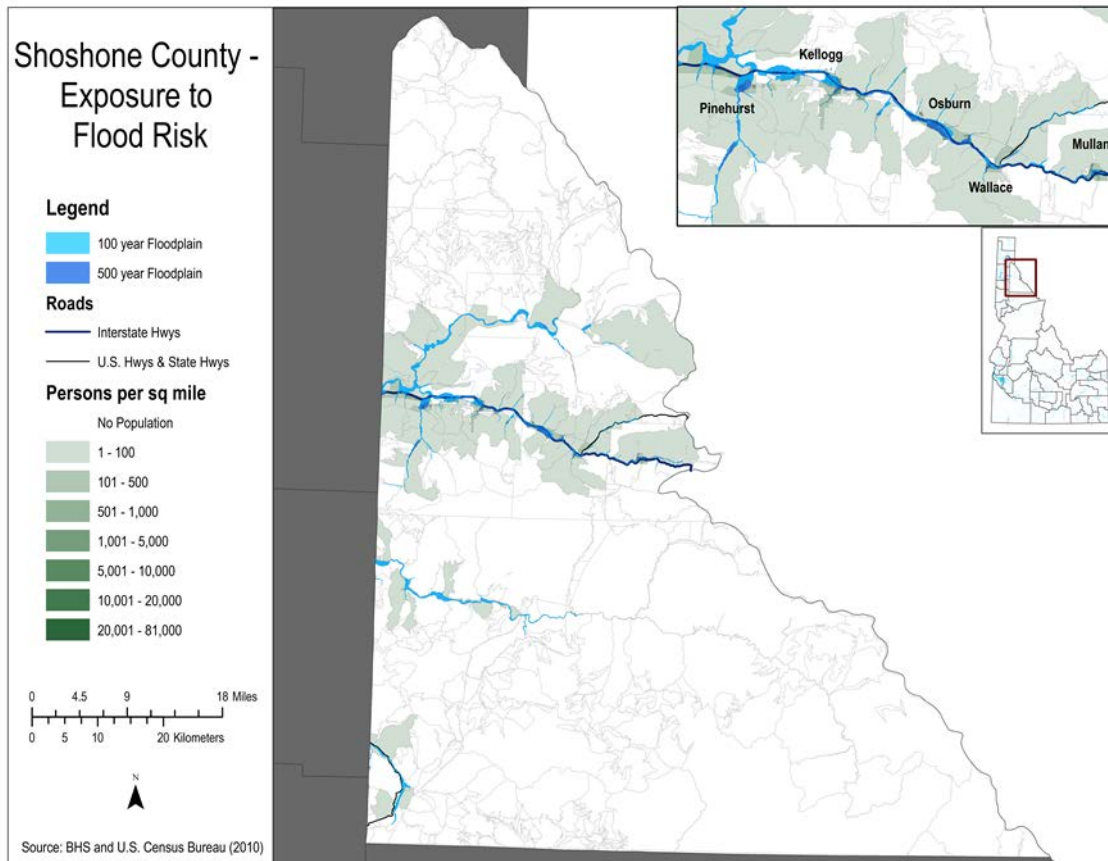


Figure D.6. 100 and 500-year flooding extent overlaid with population density in Shoshone County, ID

### Businesses and Critical Facilities (InfoUSA data)

**Economic Assets.** When discussing short term and long term recovery, the tax parcel base is often utilized as a monetary way to fund recovery after hazard events. For this reason, understanding the percentage of the tax parcel base within the hazard extents can help gage the resilience of a community or county and its ability to recover from these hazards (Wood et al., 2007; Frazier et al., 2010). The sensitivity and exposure of businesses and employees is also important for understanding the sensitivity of economic assets within the hazard extents (Wood et al., 2007; Frazier et al., 2010). Understanding the percentage of employees that are in hazard zones can be used to determine potential economic fragility, while sales volume can be used to determine how much revenue might be lost if normal business is interrupted by a hazard event (Wood et al., 2007; Frazier et al., 2010). High percentages of employees in the hazard extents can signify an area that might suffer economic fragility should a hazard occur. For example, if a fire were to wipe out most of the businesses in the area, a high level of unemployment could occur overnight. As a result of these lost or damaged businesses, sales in that area would decrease because people are forced to shop elsewhere and a number of people could become unemployed. Therefore, understanding how hazards might affect the business and employee



base can help identify communities or areas that might have economic recovery issues (Wood et al., 2007; Frazier et al., 2010).

### **Dependent Population Facilities**

Dependent population facilities include medical facilities, emergency services facilities, adult residential care centers, schools, child day care centers, correctional facilities, and religious organizations. These populations are important to take into account because moving these populations can often be difficult, as they require specific needs when evacuated from hazardous areas (Wood et al., 2007; Frazier et al., 2010). Elderly and child populations take more time to move because they require more assistance to do so. In addition, if emergency service facilities are in hazardous areas, then they are more likely to be incapacitated in a hazard event. As a result, there would be fewer emergency services available to people in need and less backup for those within those facilities themselves.

### **Critical and Essential Facilities**

Critical and essential facilities are facilities that help keep the health, safety, and economy of the population intact. If these types of facilities are threatened or damaged by a hazard event, long-term recovery can often be delayed because the basic facilities that drive the economy, safety, and health of the community may no longer be available. Critical facilities include medical services, police and fire services, utilities, and emergency services. Essential facilities include banks, grocery stores, gas stations, and legislative bodies.

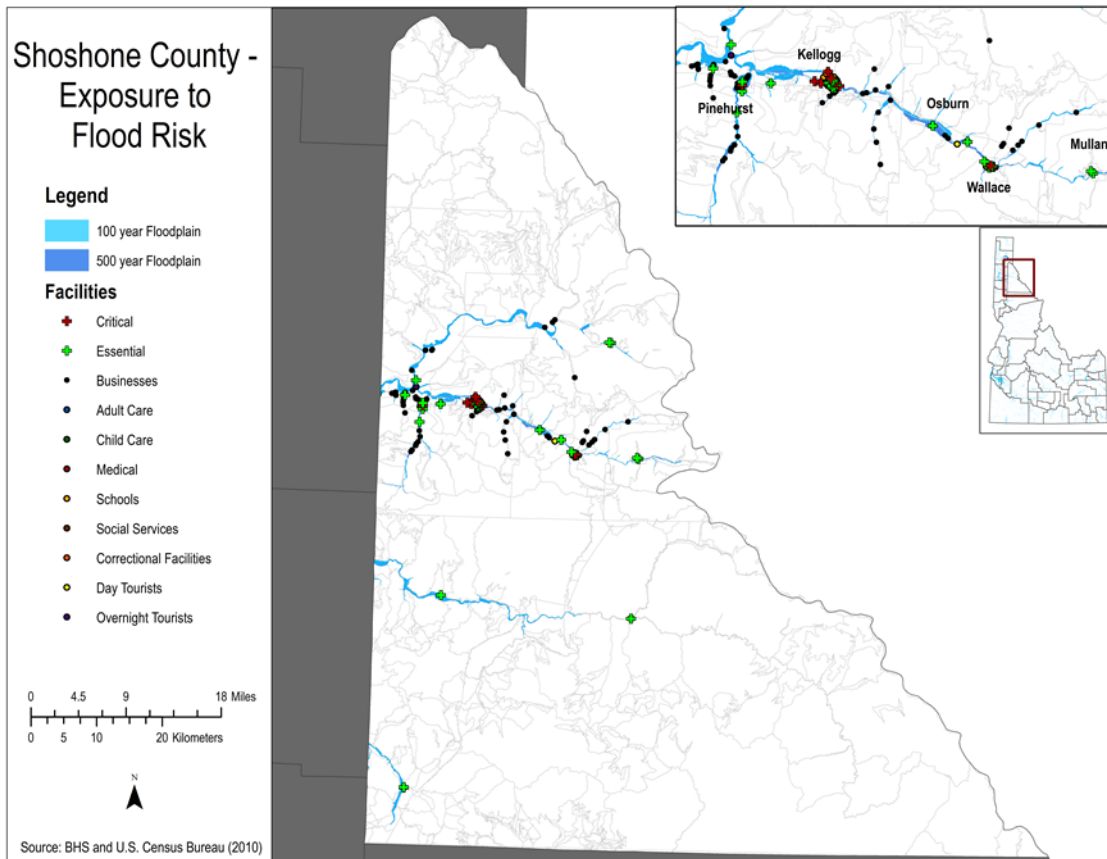


Figure D.7. 100 and 500-year flooding extent overlaid with critical and essential facilities, dependent population facilities, and businesses in Shoshone County, ID

## References

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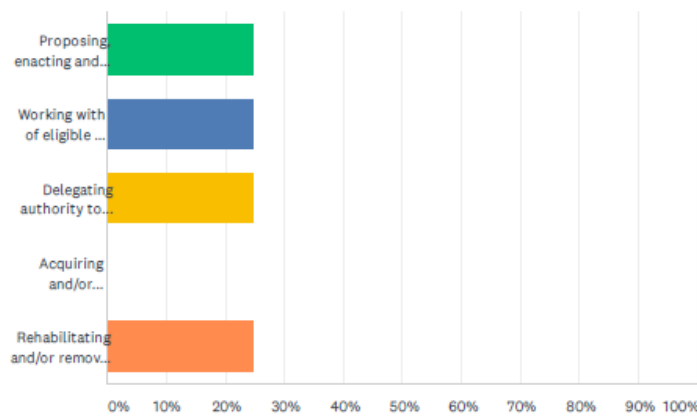
The Dam/Levee/Canal Technical Working Group completed a survey for additional mitigation actions to support the High Hazard Potential Dam Program.

Figure D.8. HHPD Mitigation Action Survey

### Mitigation Actions for High Hazard Potential Dams

Q1 Requirement 44CFR 201.4(c)(3)(iii) and (iv) To meet State Mitigation Plan Review guide Element S9 (mitigation actions), does the plan prioritize mitigation actions to reduce vulnerabilities identified in the risk assessment? To meet this requirement with a specific focus on eligible high hazard potential dams, the plan must: Include actions to reduce vulnerabilities to/from eligible high hazard potential dams, such as: (please choose one or leave your own option in the comment section)

Answered: 4 Skipped: 0



ANSWER CHOICES	RESPONSES
Proposing, enacting and/or delegating authority for local land use regulations, ordinances, and/or construction standards to protect life and property from eligible high hazard potential dams.	25.00% 1
Working with of eligible dam owners to create/update and share EAPs or dam incident annex to emergency operations plans (EOPs).	25.00% 1
Delegating authority to local governments to adopt and enforce land use ordinances in inundation zones.	25.00% 1
Acquiring and/or elevating structures both upstream and downstream of eligible high hazard potential dams.	0.00% 0
Rehabilitating and/or removing eligible high hazard potential dams.	25.00% 1
<b>TOTAL</b>	<b>4</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	Ensure downstream entities are made aware of HHPD risk status as it will impact their mission/operations.	7/29/2020 10:10 AM



The new HHPD mitigation actions were ranked and prioritized using the Staplee Method with social, technical, administrative, political, legal, economic, and environmental considerations.

**Figure D.9. HHPD Mitigation Actions Prioritization**

Staplee Scoring (Definitely YES = 3, Maybe YES = 2, Probably NO = 1, Definitely NO = 0)								Mitigation Effectiveness Avg				
	Social	Technical	Administrative	Political	Legal	Economic	Environmental	Sub-Total Avg	(5-10 additional points)	Total Score	Rank	
Mitigation Action												
Propose land use regulations, ordinances, and/or construction standards to protect life and property from eligible high hazard potential dams.	6.5	11	7.5	6	5.5	12	11	11.9		7.1	19	3
Working with of eligible dam owners to create/update and share EAPs or dam incident annex to emergency operations plans (EOPs).	11	10.5	11	11	11	11	10.5	15.2		5.4	20.6	1
Delegating authority to local governments to adopt and enforce land use ordinances in inundation zones. (Already covered by Id Code)												
Rehabilitating and/or removing eligible high hazard potential dams.	10	11.5	7	10	5.5	5	7	11.2		7.9	19.1	2
Ensure downstream entities are made aware of HHPD risk status as it will impact their mission/operations.	9	7	10.5	11	12	12	4	13.1		5.2	18.3	4
<b>STAPLEE criteria:</b>												
• <b>Social:</b> Is the proposed strategy socially acceptable to the community? Will the proposed action adversely affect a segment of the population?												
• <b>Technical:</b> Will the proposed strategy work? Will it solve a problem independently? How effective is the action in avoiding or reducing future losses?												
• <b>Administrative:</b> Can the community implement and maintain the action? Is there someone to coordinate and lead the effort? Can it be accomplished in a timely manner?												
• <b>Political:</b> Is the strategy politically acceptable? Is there public support both to implement and to maintain the project? Who are the stakeholders?												
• <b>Legal:</b> Is the community authorized to implement the proposed strategy? Is there a clear legal basis or precedent for this activity? Are there any potential legal consequences?												
• <b>Economic:</b> What are the costs and benefits of this strategy? Does the cost seem reasonable for the size of the problem and the likely benefits? After implementation, will the benefits over time be more than the cost of the project?												
• <b>Environmental:</b> Will the project have a positive impact on the environment? Will historic structures be saved or protected? Is the action consistent with community environmental goals?												
<b>Mitigation Effectiveness Weighting</b> – The action items were additionally given a weighted score based on the mitigation effectiveness of each one.												
• Will the implemented action result in lives saved?												
• Will the implemented action result in a reduction of disaster damages?												