

**OROVILLE USACE WARNING PROJECT  
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**APPENDIX 1**  
**INVENTORY OF SELECTED PUBLIC MESSAGES**

## INVENTORY OF SELECTED PUBLIC MESSAGES

### **February 7, 2017 (time unknown)**

The California Department of Water Resources (DWR) released the following message on February 7, 2017 telling the public that they were investigating the erosion on the spillway.



**February 7, 2017**

**Contacts:**

**Ted Thomas, Information Officer – (916) 653-9712**

[Ted.Thomas@water.ca.gov](mailto:Ted.Thomas@water.ca.gov)

**Doug Carlson, Information Officer – (916) 653-5114; mobile (916) 335-2299**

[Doug\\_Carlson@water.ca.gov](mailto:Doug_Carlson@water.ca.gov)

### **DWR Halts Flows Down Oroville Dam Spillway** *Engineers Investigating Erosion*

**Oroville** – The Department of Water Resources has temporarily suspended flows from the Oroville Dam spillway to investigate concrete erosion on the bottom half of the spillway. There is no anticipated threat to the dam or the public.

Approximately 20 percent of Lake Oroville remains empty, and DWR officials say there is sufficient storage room to capture the inflow of the rain showers expected through the rest of the week. The reservoir, 3.5 million acre-feet at full capacity, now holds 2.8 million acre-feet, as prescribed by flood control operations.

Tuesday morning, approximately 60,000 cubic feet per second (cfs) was being released to the Feather River, all but roughly 5,000 cfs of it through the dam spillway. The remaining flows passed through the Hyatt Power Plant within the left abutment of the dam. DWR employees noticed an unusual flow pattern and erosion on the spillway, and they are investigating.

Flows from the spillway were gradually reduced until they were entirely halted around noon Tuesday. Sufficient capacity exists within the reservoir to capture projected inflows for at least three days, and DWR expects to resume releases from the gated spillway at a rate deemed safe later today after a thorough inspection is performed.

In order to avoid a drastic reduction of flows in the Feather River downstream, DWR is increasing releases from Thermalito Afterbay – a small reservoir just downstream of Oroville Dam. DWR will keep the public apprised of the situation with regular updates.

– 30 –

Visit <http://drought.ca.gov> to learn how California is dealing with the drought.



**February 8, 2017 (time unknown)**

The Department of Water Resources released another statement on February 8, 2017 about pending spillway tests.

*DWR Conducts Test To Assess Spillway Oroville*

*To help determine an appropriate level of flow down the damaged spillway at Oroville Dam, the California Department of Water Resources (DWR) will release up to 20,000 cubic feet per second (cfs) this afternoon, then ramp down the flows and assess any further damage to the eroded spillway. The test flow will run for two hours, perhaps as soon as late this afternoon.*

*The test flow is expected to further erode the lower reach of the spillway, where a cavity opened yesterday as approximately 55,000 cfs was being released from the reservoir into the Feather River downstream. DWR shut the spillway on February 7 to investigate the erosion. With the test flows, engineers will verify how much flow the spillway can handle. The spillway is necessary to maintain reservoir operations, given the immediate forecast of continued rain for the next two days and also in preparation for the remaining runoff season.*

*In the coming days, DWR will continue to investigate ways to bolster and protect the spillway. At the same time, as part of a contingency plan, the DWR is removing trees and debris from the corridor near the dam where water would flow in the event the emergency spillway is needed. The emergency spillway, separate from the damaged spillway, is not gated, and water would flow naturally from the reservoir if it were to reach its capacity of 3.5 million acre-feet at 901 feet elevation.*

*As of this afternoon, the reservoir holds 3 million acre-feet of water. Before the test flow, approximately 14,000 cfs were being released from the reservoir through other outlets, including the Hyatt Power Plant. The test will boost those flows temporarily to 34,000 cfs. Inflows to the reservoir are approximately 85,000 cfs. Enough vacant space exists in the reservoir to capture the flow of the rains expected through Friday afternoon. The dam is sound, and no imminent threat to the public exists.*

*DWR is coordinating closely with State and federal wildlife and dam safety officials as it responds to the spillway erosion. Lake conditions, including lake levels, inflows, and outflows can be obtained via a recorded message at 530-534-2307.*

*SACRAMENTO MEDIA: Bill Croyle, DWR's Acting Director, will be available to discuss the current status of DWR's response to the incident at 4:15 this afternoon at 1416 9th Street, outside the building.*

**February 9, 2017 (time unknown)**

The Butte County Sheriff released the following press release on February 9, 2017 indicating, among other things, that residents in Butte County communities along the Feather River should prepare in the event an evacuation warning is issued.



For Immediate Release: February 9, 2017  
Contact: Miranda Bowersox, (530) 990-6949

Butte County Sheriff's Officials, CALFIRE/Butte County Fire, CALOES, and Oroville City Officials have been participating in briefing meetings held by Department of Water Resources (DWR) pertaining to the Oroville spillway damage. Based on the information received from DWR, there is no imminent or expected threat to public safety or the integrity of Oroville Dam. The emergency spillway may be used as early as Friday evening. This would be the first time the emergency spillway has been used.

Water flowing over the emergency spillway is not desirable because it will result in debris and sediment flowing into the Feather River. These flows will make the river unusually muddy. Water flowing over the emergency spillway does not necessarily mean flooding will occur downstream. Flooding is based on total flow to the Feather River. The current forecasted total flow is not expected to exceed 75,000 cfs, which is less than the flow in 2006 and half of the flow in 1997.

DWR is attempting to avoid the need for flow over the emergency spillway by increasing flows down the primary spillway from 35,000 to 42,000 cfs. The flow through the power plant will increase to 13,000 cfs, for a total of 55,000 cfs being released from Lake Oroville.

Residents in Butte County communities along the Feather River should use this time to prepare in the event an Evacuation Warning is issued. Get ready, gather important items, and consider where you and your family may go if an Evacuation Warning is issued.

Sign up for Emergency Notifications at [www.buttecounty.net/emergencymassnotification](http://www.buttecounty.net/emergencymassnotification).

A Public Information Line has been set up at (530) 538-7826 and will be monitored 24/7.

**February 11, 2017 (time unknown)**

The Butte County Sheriff released the following Facebook post on February 11, 2017 once again indicating, among other things, that residents in Butte County communities along the Feather River should prepare in the event an evacuation warning is issued.



**Butte County Sheriff**

February 11 · 🌐

👍 Like Page



This notification is in the process of being sent to residents along the Feather River from the Oroville Dam to the Butte County Line:

Update on the Lake Oroville Spillway incident:

This is not an evacuation warning; this is our effort to get information to residents in the area.

The California Department of Water Resources (DWR) said the auxiliary spillway at Lake Oroville started spilling water at 8:00 am today. This occurred when the lake level exceeded 901 feet elevation above sea level.

The volume of water is expected to pose no flood threat downstream and should remain well within the capacity of the Feather River and other channels to handle. Oroville Dam itself remains safe and there is no imminent threat to the public.

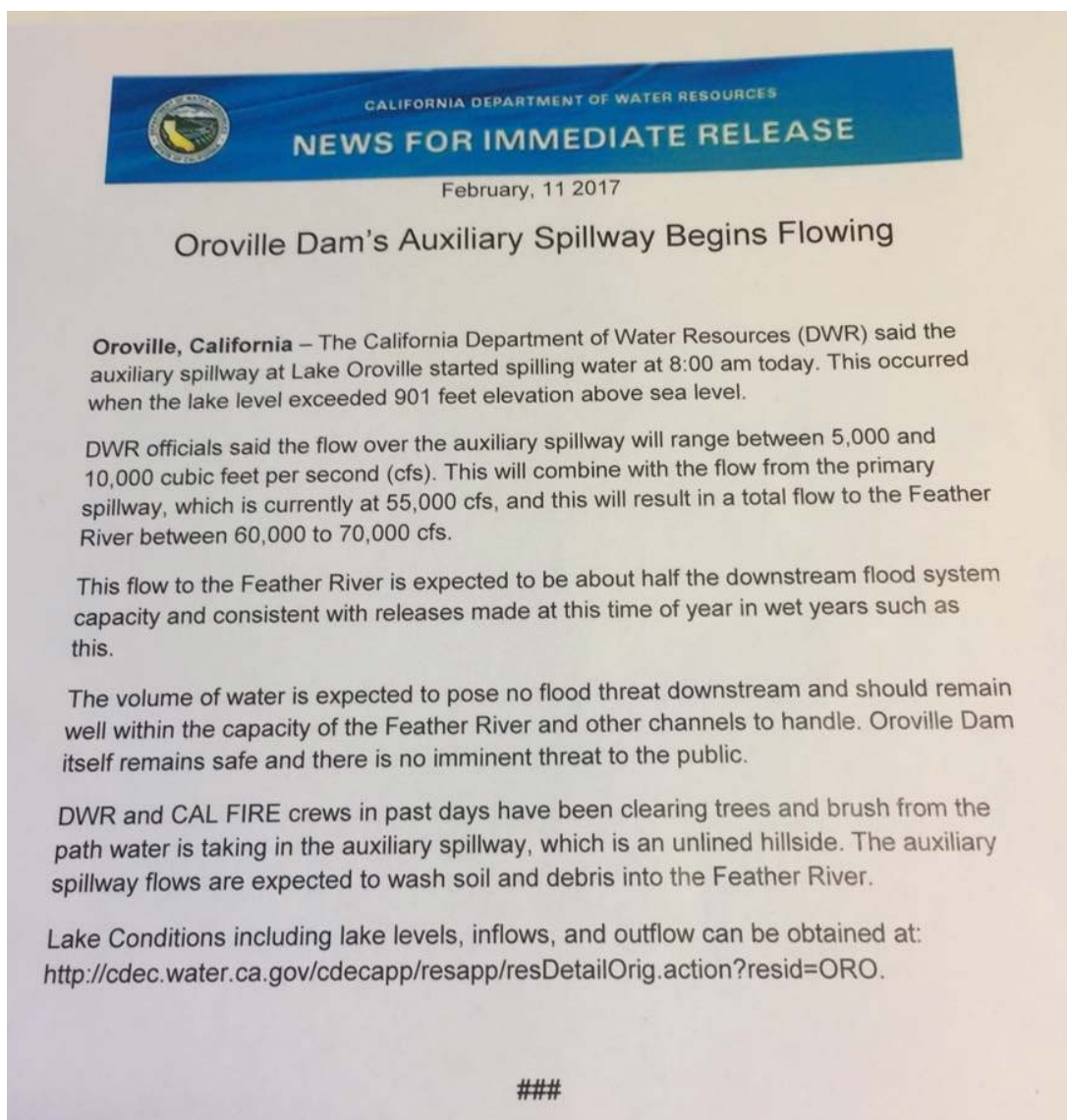
The Butte County Sheriff's Office along with other Butte County public safety officials are monitoring the situation closely for changes that would necessitate further update and direction.

The likelihood of an Evacuation Warning for Butte County residents is remote, however residents in communities along the Feather River should use this time to prepare in the event an Evacuation Warning is issued.

97 Reactions 20 Comments 184 Shares

**February 11, 2017 (time unknown)**

The Department of Water Resources released the following news release about the auxiliary spillway on February 11, 2017.



**February 12, 2017 at 3:44 pm**

Butte County Police Department notified of failing dam (Butte County police blotter).

MSHZ N C DINEEN

Event: 17-AA8066 Time: 02/12/2017 15:44:04 Call Taker: M ELKINS Business:

OROVILLE DAM

Location: 0 OROVILLE DAM DR / CANYON DR, OROVILLE

Synopsis: L2 CALLED TO ADV THE AUX DAM IS CUTTING BACK UNDER BACK TWDS THE DAM

**February 12, 2017 at 4:21 pm**

The Butte County Sheriff issued the first public evacuation message during the event. It was issued at 4:21 pm on February 12, 2017. Although it was intended for people in Butte County, it was re-distributed many times by others to people at risk in other geopolitical locations.

*This is an evacuation order. Immediate evacuation from the low levels of Oroville and areas downstream is ordered. A hazardous situation is developing with the Oroville Dam auxiliary spillway. Operation of the auxiliary spillway has led to severe erosion that could lead to a failure of the structure. Failure of the auxiliary spillway structure will result in an uncontrolled release of floodwaters from Lake Oroville. In response to this developing situation, DWR is increasing water releases to 100,000 cubic feet per second. Immediate evacuation from the low levels of Oroville and areas downstream is ordered. This is NOT A Drill. This is NOT A Drill. This is NOT A Drill.*

**February 12, 2017 at 4:30 pm**

The Butte County Sheriff's Office released the following statement at 4:30 pm on February 12, 2017.

*Oroville, CA- On Sunday, 2/12/17, at approximately 4:30 p.m., the Butte County Sheriff's Office (BCSO) Jail Command Staff and Sheriff Kory Honea began an evacuation plan for the Butte County Jail due to the credible threat of potentially catastrophic damage to the Lake Oroville Dam Emergency Spillway.*

*All 578 inmates from the Butte County Jail were safely transported to the Santa Rita Jail, located in the city of Dublin, in Alameda County. This is the first time an evacuation order has been issued at the Butte County Jail. Approximately 80 personnel were involved in the evacuation and transportation to Alameda County. The Butte County Office of Education provided five buses, and assistance and transport vehicles were provided by the Placer County Sheriff's Office, the Shasta County Sheriff's Office, and the Tehama County Sheriff's Office. The California Highway Patrol assisted in escorting the caravan of vehicles used to transport the inmates to Alameda County.*

*Sheriff Honea is working closely with Cal Fire and The Department of Water Resources in a unified command to manage the situation and the inmates will return to the Butte County Jail when it is deemed safe for them to return. Friends and loved ones of inmates can call the Santa Rita Jail at (925) 551-6500 or can visit [alamedacountysheriff.org](http://alamedacountysheriff.org) for more information.*

**February 12, 2017 at 4:35 pm**

The National Weather Service released the following message on February 12, 2017 at 4:35 pm.

*The National Weather Service in Sacramento has issued a*

*\* Flash Flood Warning for...A Dam Failure in...South central Butte County in northern California...Until 415 PM PST Monday*



*\*At 419 PM PST, Dam operators reported A hazardous situation is developing with the Oroville Dam auxiliary spillway. Operation of the auxiliary spillway has lead to severe erosion that could lead to a failure of the structure. Failure of the auxiliary spillway structure will result in an uncontrolled release of flood waters from Lake Oroville.*

*\*In response to this developing situation, DWR is increasing water releases to 100,000 cubic feet per second.*

*\*Immediate evacuation from the low levels of Oroville areas downstream is ordered. From Oroville to Gridley...low level areas around the feather river will experience rapid river rises. This is not a Drill. This is not a Drill. Repeat this is not a drill.*

*\* Locations impacted include...Oroville, Palermo, Gridley, Thermalito, South Oroville, Oroville Dam, Oroville East and Wyandotte.  
PRECAUTIONARY/PREPAREDNESS ACTIONS...Turn around, don't drown when encountering flooded roads. Most flood deaths occur in vehicles. Move to higher ground now. Act quickly to protect your life.*

**February 12, 2017 at 4:47 pm**

The National Weather Service then released the following message at 4:47 pm on February 12, 2017.

*...A FLASH FLOOD WARNING FOR A DAM FAILURE REMAINS IN EFFECT UNTIL 415 PM PST MONDAY FOR SOUTH CENTRAL BUTTE COUNTY... At 441 PM PST*

*\* Flash Flood Warning for... A Dam Failure in... South central Butte County in northern California...*

*\* Until 415 PM PST Monday*

*\* At 445 PM PST, Officials now anticipate a failure of the auxiliary spillway in 60 minutes. Residents of Oroville should evacuate in a northward direction such as towards Chico.*

*Other city's should follow the orders of their local law enforcement. Operation of the auxiliary spillway has lead to severe erosion that has lead to a failure of the structure. Failure of the auxiliary spillway structure will result in an uncontrolled release of flood waters from Lake Oroville.*

*Immediate evacuation from the low levels of Oroville areas downstream is ordered. From Oroville to Gridley...low level areas around the feather river will experience rapid river rises.*

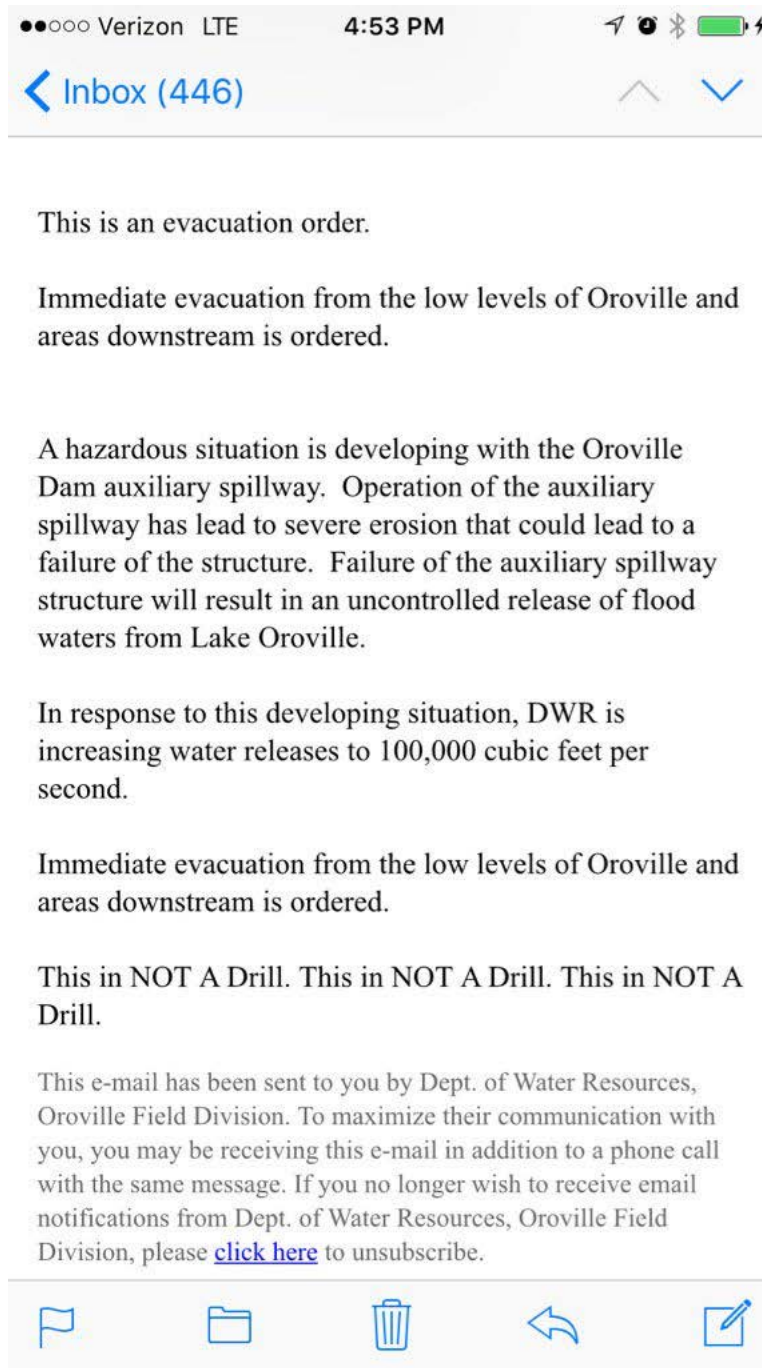
*This is not a Drill. This is not a Drill. Repeat this is not a drill.*

*\* Locations impacted include...Oroville, Palermo, Gridley, Thermalito, South Oroville, Oroville Dam, Oroville East and Wyandotte.*

*PRECAUTIONARY/PREPAREDNESS ACTIONS...Turn around, don't drown when encountering flooded roads. Most flood deaths occur in vehicles. Move to higher ground now. Act quickly to protect your life.*

**February 12, 2017 at approximately 4:53 pm**

The following message was issued by the DWR at approximately 4:53 pm on February 12, 2017.



**February 12, 2017 at 6:03 pm**

Sutter County issued the following evacuation message to the people of the county at 6:03 pm.

*Immediate evacuation Live Oak, Yuba City, Nicholas and other communities along Feather River ordered. Evacuate on Highway 99/70 south or Highway 20 west. Do not evacuate north. A partial failure of the Oroville Dam is possible.*

**February 12, 2017 at 6:08 pm**

A subsequent statement by the Sacramento Office of the National Weather Service (NWS) was issued at 6:08 pm on February 12, 2017. It follows.

**Imminent Failure of Auxiliary Spillway on Oroville Dam!**  
*Dam itself is not compromised at present time*

Auxiliary Spillway  
Oroville Dam  
Damaged Spillway

Failure of the auxiliary spillway structure will result in an uncontrolled release of flood waters from Lake Oroville

NWS Sacramento  
Issued: 6pm 2/12/2017

NWS Sacramento  
@NWSSacramento

Follow

6:08pm: #OrovilleDam itself is not compromised at current time. Failure would be on auxiliary spillway. See graphic for details.  
6:08 PM - 12 Feb 2017

2,370 1,109

**February 12, 2017 at 6:11pm**

Sutter County issued the following first evacuation message for people in the county. It was issued over Twitter at 6:11 pm.

*Sutter County OEM immediate evacuation ordered for Live Oak, Yuba City, Nicolaus & all communities Feather River Yuba City basin.*

**February 12, 2017 at 6:49 pm**

The following message was issued by Yuba City, which is located in Sutter County, on February 12, 2017 at 7:14 pm. Note that while the county's message above had *ordered* an evacuation, the city's message *recommended* that people evacuate.

*YUBA CITY, Calif. - The City of Yuba City is strongly recommending an evacuation of all residents immediately.*

*Travel options are as follows; south on Highway 99, west on Highway 20, Highway 99 south to Highway 113, or south on George Washington to Highway 133.*

*Officials said do not travel on Highway 20 or Bridge Street as the bridges are closed. Do not travel north.*

**February 12, 2017 at 7:21 pm**

At 7:21 pm on February 12, 2017 the Butte County Sheriff's office released the following statement on their Facebook page.

*This is an evacuation order. Immediate evacuation from the low levels of Oroville and areas downstream is ordered. A hazardous situation is developing with the Oroville Dam auxiliary spillway. Operation of the auxiliary spillway has lead to severe erosion that could lead to a failure of the structure. Failure of the auxiliary spillway structure will result in an uncontrolled release of flood waters from Lake Oroville. In response to this developing situation, DWR is increasing water releases to 100,000 cubic feet per second. Immediate evacuation from the low levels of Oroville and areas downstream is ordered. This in NOT A Drill. This in NOT A Drill. This in NOT A Drill.*

**February 12, 2017 at 7:40 pm**

The California Department of Water Resources posted the following message on Facebook at 7:40 pm on February 12, 2017.

*EMERGENCY EVACUATION ORDER ISSUED: Officials are anticipating a failure of the Auxiliary Spillway at Oroville Dam within the next 60 minutes. Residents of Oroville should evacuate in a northward direction, toward Chico. Other cities should follow the orders of their local law enforcement.*

**February 12, 2017 at Time 7:40pm**

The Yuba County Office of Emergency Services released the following message on Facebook at 7:40 pm on February 12, 2017. It was the first evacuation message issued directly for people in Yuba County.

*ALERT-ALERT-ALERT -- Yes, an evacuation has been ordered. All Yuba County on the valley floor. The auxiliary spillway is close to failing. Please travel safely. Contact family and friends. Help the elderly. Take only routes to the east, south, or west. DO NOT TRAVEL NORTH TOWARD OROVILLE!!!!*

**February 12, 2017 at 7:41 pm**

The Yuba City Fire Battalion Chief created the following message at 7:39 pm, and distributed it over the City's Rapid Notification System at 7:41 pm on February 12, 2017.

*The City of Yuba City strongly recommends an evacuation of all residents immediately. Travel options are as follows:*

*South on Highway 99; west on Highway 20; Highway 99 south to Highway 113 or south on George Washington to Highway 113. Do not travel east bound on Highway 20 or Bridge Street as the bridges are closed. Do not travel north.*

*The City of Yuba City strongly recommends an evacuation of all residents immediately. Travel options are as follows:*

*South on Highway 99; west on Highway 20; Highway 99 south to Highway 113 or south on George Washington to Highway 113. Do not travel east bound on Highway 20 or Bridge Street as the bridges are closed. Do not travel north. Thank you.*

**February 12, 2017 at 8:02 pm**

The National Weather Service released the following message at 8:02 pm on February 12, 2017.

*...A FLASH FLOOD WARNING FOR A DAM FAILURE REMAINS IN EFFECT UNTIL 415 PM PST MONDAY FOR SOUTH CENTRAL BUTTE COUNTY...*

*\* Flash Flood Warning for...A potential failure in part of the emergency spillway... South central Butte County in northern California...*

*\* Until 415 PM PST Monday*

*\* At 745 PM PST, Residents of Oroville should evacuate in a northward direction such as towards Chico.*

*Other city's should follow the orders of their local law enforcement. Operation of the auxiliary spillway has lead to severe erosion that could lead to a failure of the structure. Failure of the auxiliary spillway structure will result in an uncontrolled release of flood waters from Lake Oroville.*

*Immediate evacuation from the low levels of Oroville areas downstream is ordered. From Oroville to Gridley...low level areas around the feather river will experience rapid river rises.*

*This is not a Drill. This is not a Drill. Repeat this is not a Drill.*

*\* Locations impacted include...Oroville, Palermo, Gridley, Thermalito, South Oroville, Oroville Dam, Oroville East and Wyandotte.*

*PRECAUTIONARY/PREPAREDNESS ACTIONS...Turn around, don't drown when encountering flooded roads. Most flood deaths occur in vehicles. Move to higher ground now. Act quickly to protect your life.*

**February 12, 2017 at 8:28 pm**

The National Weather Service released that following message on February 12, 2017 at 8:28 pm.

*...A FLASH FLOOD WARNING FOR THE POTENTIAL FAILURE OF A PORTION OF THE AUXILIARY SPILLWAY OF OROVILLE DAM REMAINS IN EFFECT UNTIL 415 PM PST MONDAY FOR SOUTH CENTRAL BUTTE COUNTY...*

*Operation of the auxiliary spillway has lead to severe erosion that could lead to a failure a portion of the structure. Failure of the auxiliary spillway structure would result in an uncontrolled release of flood waters from Lake Oroville.*

*Only the auxiliary spillway of Oroville dam is considered to be under threat at this time.*

*Residents should follow evacuation instructions issued by local authorities.*

*\* Locations impacted include...Oroville, Palermo, Gridley, Thermalito, South Oroville, Oroville Dam, Oroville East and Wyandotte.*

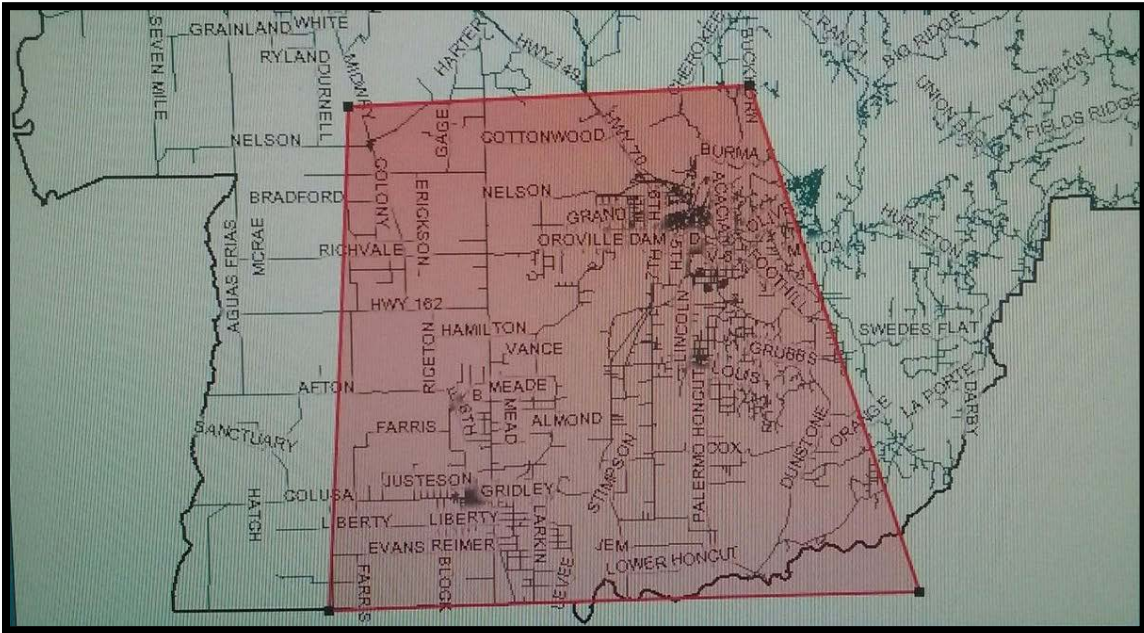
*PRECAUTIONARY/PREPAREDNESS ACTIONS...Turn around, don't drown when encountering flooded roads. Most flood deaths occur in vehicles. Move to higher ground now. Act quickly to protect your life.*

**February 12, 2017 at approximately 10:00 pm**

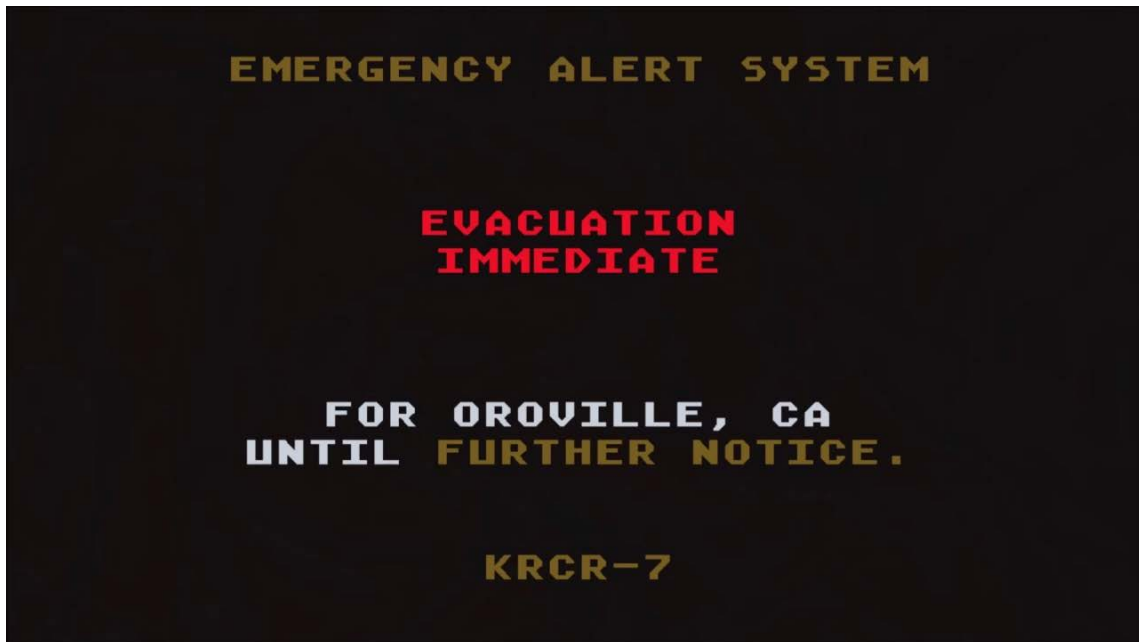
A press conference conducted by Cal Fire's Kevin Lawson and Butte County Sheriff Honea was televised on February 12, 2017 at approximately 10:00 pm. It can be accessed and viewed at the following link. [https://www.youtube.com/watch?v=axzj\\_CUhglo](https://www.youtube.com/watch?v=axzj_CUhglo)

**February 12, 2017 at unknown times**

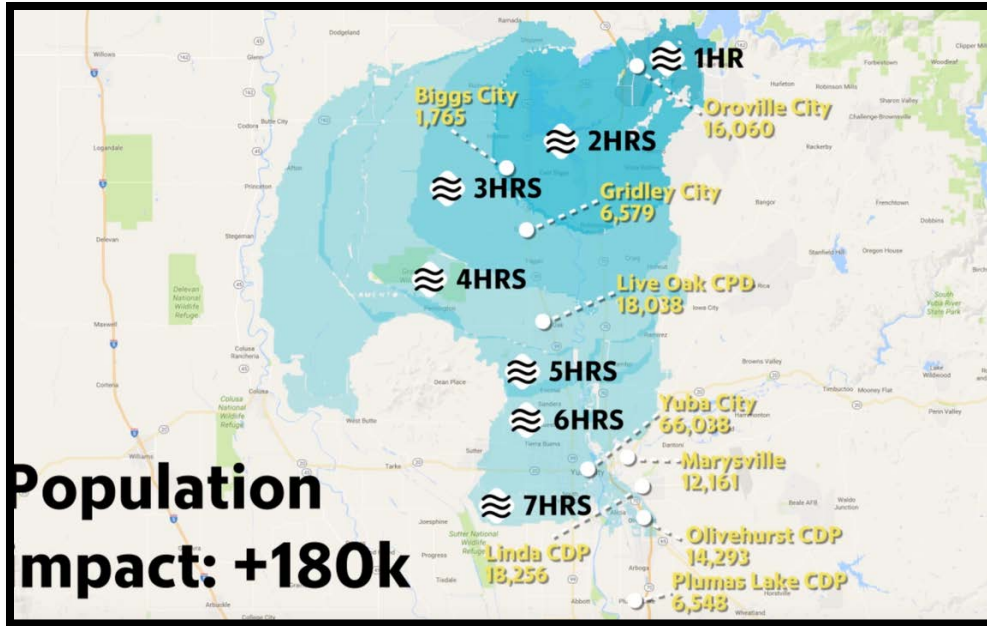
The following information placards were shown on television and/or released on websites on February 12, 2017.




**Evacuation Area in Butte County**



**Emergency Alert System Broadcast on Television Multiple Times**



**Hours for Flood Waters to Reach Different Locations**


**CALIFORNIA DEPARTMENT OF WATER RESOURCES**  
**NEWS FOR IMMEDIATE RELEASE**

February 12, 2017

**Contact:**  
Ted Thomas 916-798-1701

**CONCERN AT OROVILLE SPILLWAY TRIGGERS  
EVACUATION ORDERS**

Oroville, Ca — Based on information received from the California Department of Water Resources (DWR) and the incident command team managing Lake Oroville, counties and cities near Lake Oroville and the surrounding area issued evacuation orders for residents. The concern is that erosion at the head of the auxiliary spillway threatens to undermine the concrete weir and allow large, uncontrolled releases of water from Lake Oroville. Those potential flows could exceed the capacity of downstream channels.

To avert more erosion at the top of the auxiliary spillway, DWR doubled the flow down its main spillway from 55,000 cubic feet per second (cfs) to 100,000 cfs. The next several hours will be crucial in determining whether the concrete structure at the head of the auxiliary spillway remains intact and prevents larger, uncontrolled flows.

Current flows are contained with downstream channels.

Flow over the auxiliary spillway weir began Saturday morning and has slowed considerably. DWR officials expect that flow to stop entirely soon, which will reduce the erosion on the downstream side of the structure.

Oroville Dam itself is sound and is a separate structure from the auxiliary spillway.

###

**Evacuation Explanation Provided by DWR**





### Evacuated Areas

#### **February 13, 2017 at 2:05 pm**

The California Office of Emergency Services provided an update, which can be viewed at: <https://www.facebook.com/fox40/videos/vb.49075262038/10154393963742039/?type=2&theater>

#### **February 13, 2017 at 2:39 pm**

National Weather Service in Sacramento released the following message on February 13, 2017 at 2:39 pm.

The National Weather Service in Sacramento has extended the

\* Flash Flood Warning for...The potential failure of a portion of the auxillary spillway of Oroville Dam in...South central Butte County in Northern California...

\* Until 415 PM PST Tuesday

\* The water level at Oroville Dam has decreased to below the Auxiliary Spillway and water is no longer flowing over the Auxiliary spillway. However, the Department of Water Resources continues to monitor the situation closely.

\* The situation remains potentially dangerous and local evacuation orders have not been lifted. Residents should follow evacuation instructions issued by local authorities.

\* Dam operators are continuing large controlled releases out of the dam in order to lower lake levels. This will cause high river levels downstream for the foreseeable future.

PRECAUTIONARY/PREPAREDNESS ACTIONS...Heed local authority's instructions regarding evacuations.

**February 14, 2017 at 2:40 pm**

The National Weather Service's released the following message at 2:40 pm on February 14, 2017.

...THE FLASH FLOOD WARNING HAS BEEN CANCELLED FOR THE AUXILLARY SPILLWAY OF OROVILLE DAM IN SOUTH CENTRAL BUTTE COUNTY...

The flash flood warning has been downgraded to a Flash Flood Watch.

Officials managing the Auxillary Spillway at Oroville Dam have indicated that the situation has stabilized sufficiently to lift mandatory evacuation orders. All residents of the area are advised to remain vigilant and prepared as conditions can rapidly change.

A flash flood watch will remain in effect until further notice. A watch means that conditions warrant close monitoring but an immediate threat does not exist at this time.

**February 20, 2017 at 9:25 pm**

Sheriff Kory Honea posted the following message at 9:45 pm on February 20, 2017.

*RUMOR CONTROL: February 20, 2017 @ 2125*

*Unfortunately, this evening a news report from one of the media outlets covering the Oroville Dam Spillway situation mistakenly reported that immediate evacuations had been ordered for Oroville, CA and Gridley, CA. That report is NOT accurate. Immediate evacuations have not been ordered for those areas. The public information officer assigned to the Oroville Dam Spillway incident contacted the media outlet and asked them to correct the information. It appears the confusion was caused by an evacuation order issued for the Manteca, CA area due to a levee breach on the San Joaquin River.*

**APPENDIX 2**  
**RECONNAISSANCE TRIP FIELD GUIDE**

## **RECONNAISSANCE TRIP FIELD GUIDE**

### **BEGINNING THE CONVERSATION**

1. Thank them for their time
2. Distribute our business cards & request theirs
3. Tell them we're beginning a study of Oroville Dam public warnings & want to ask them a few questions to help us get started
4. Give them a copy of our one-pager and briefly summarize it
5. Emphasize that this is not to judge or evaluate their performance, but to gather information on the timeline of events.

### **EMERGENCY PLANNING IN PLACE WHEN THE EVENT BEGAN**

6. Before the Oroville event began on February 4th, did your agency have any formal roles or responsibilities for managing an Oroville dam emergency?
  - a. If yes, what were they?
  - b. Did you have a formal emergency plan and SOPs in place?
    - i. If yes, may we have a copy?
  - c. Have you ever seen an inundation map for Oroville Dam?
    - i. If yes, may we have a copy?
  - d. Did you have any emergency scenarios or action levels in the plans?
  - e. Did that plan include spillway failure events?
  - f. Did that plan include public protective actions included?

### **COMMUNICATING INFORMATION ABOUT THE INCIDENT**

7. Beginning with the start of the event on February 4, 2017 and ending after most people had completed their evacuation on February 12<sup>th</sup> or 13<sup>th</sup>, did you or your agency provide information to local officials on the incident at the dam, the risks, consequences and implications for public safety?
  - o If yes, do you have a record of those communications?
  - o If yes, what did those communications say?
    - NOTE: list in chronological order by date and time
    - NOTE: for each communication:
      - What did the communication say? Is a copy available?
      - How was it disseminated? (i.e., e-mail, at meeting, phone call, etc.)

### **PUBLIC MESSAGES AND WARNINGS**

8. Beginning with the start of the event on February 4, 2017 and ending after most people had completed their evacuation on February 12<sup>th</sup> or 13<sup>th</sup>, did you or your agency provide messages DIRECTLY to the public?
  - a. If yes, do you have a list of those messages we could have?
  - b. If yes, what did those messages say?
    - i. NOTE: list in chronological order by date and time
    - ii. NOTE: for each message:
      1. What did message say? Is a copy available?
      2. Identified message source?
      3. How disseminated?
      4. Date and time disseminated?
      5. Intended audience?
        - a. Entire risk area?

- b. Sub-area/city/county name?
- c. What dissemination channels did you use?
  - i. What percentage of the population do you think you reach for each channel used?
- 9. A public evacuation order was issued by the Butte County Sheriff at 4:21 pm on February 12<sup>th</sup> for low levels of Oroville and areas downstream.
  - d. Did you or your agency distribute that message to the public?
    - i. If yes:
      - 1. At what times?
      - 2. Over what communication channel(s)?
      - 3. How many times was it repeated?

**DETECTOR/EMERGENCY MANAGERS WARNING/EVACUATION COMMUNICATION**

- 10. Once again, beginning with the start of the event on February 7, 2017 and ending when everyone who wanted to evacuate had done so (perhaps on February 12<sup>th</sup> or 13<sup>th</sup>), what information about the warning and evacuation was shared between risk detectors (for example, the DWR) and emergency managers (for example, the Butte County Sheriff)?
  - a. Might you have a list of those communications?
  - b. We are particularly interested in information related to the decision to evacuate the public on February 11<sup>th</sup>, but let's begin at the beginning on February 4<sup>th</sup>.
- 11. Can you describe how the decision to evacuate was made?
  - a. Who was involved in that decision?
- 12. What specific risk/threat/hazard information was used in making decisions about:
  - o When to issue warning to evacuate
  - o Which geographic areas to evacuate?

**DEFINITION OF THE WARNED POPULATION**

- 13. Your warning message stated it was for people in Oroville. How would the public have interpreted "Oroville?"
  - Oroville Proper
  - East Oroville
  - South Oroville
  - Thermalito
  - Others?
- 14. Your warning messages also mentioned "areas downstream." How would the public have interpreted "areas downstream?"
  - Thermalito
  - East Biggs
  - Peachton
  - Gridley City
  - East Gridley
  - Robinson's Corner
  - Fagan
  - Live Oak
  - Lomo
  - Sullivan
  - Yuba City
  - Marysville
  - Hallwood
  - Linda

- Olivehurst
  - Plumas Lake
  - Wheatland
  - Others?
15. Do you know if a list is available of the household addresses in those areas?
  16. Were there any other communities not on our list that evacuated?
    - a. If yes, what were their names?
  17. Were the boundaries of the total area asked to evacuate described?
    - b. If yes:
      - i. How were the boundaries described?
      - ii. Was a map provided?
      - iii. By whom?
      - iv. Date & time?
      - v. Public dissemination channel?

**EVACUATION**

18. What percentage of the population in Oroville did not evacuate?
- 19.
20. What percentage of the population in downstream areas did not evacuate?

**REFLECTIONS**

21. What would you have done differently?
22. What have you learned, and what changes have you made?

**UPCOMING SURVEY**

23. We are going to be sending a questionnaire to the entire Oroville population advised to evacuate. Are there any questions you'd like to ask that would be useful for you?
  
24. The more responses we receive, the more accurate our results will be. Would you be willing to announce to the population of the Oroville area that some of them may be receiving a questionnaire and to encourage them to fill it out and mail it out to us? Is there anything we can provide to you to facilitate that for us?

**FUTURE QUESTIONS**

25. May we give you a call next month to schedule a follow-up interview over the telephone?

**THANK THEM FOR THEIR TIME AND INVITE THEM TO CALL US IF THEY HAVE ANY  
FUTURE QUESTIONS**

**APPENDIX 3**  
**PROJECT DESCRIPTION HANDOUT**

## PROJECT DESCRIPTION

### **The Human Element: Warning and Evacuation during The Oroville Dam Emergency**

The US Army Corps of Engineers Risk Management Center is conducting a study about the public warnings issued during last February's Oroville Dam incident. The purpose of the research is to collect scientific data about:

- The public warnings that were issued,
- When and how those warnings reached the affected audience, and
- The protective actions taken by people advised to evacuate.

The study will be conducted on a random sample of approximately 800 households in threatened areas. This approach will enable us to generalize findings from the people who participate in the study to the entire population of people advised to evacuate.

The findings from this research will advance knowledge about public warning processes and response. They will help improve how future public warnings and evacuations for any hazard are implemented. The data collected will also be used by the U.S. Army Corps of Engineers to update evacuation time estimates in communities throughout the nation in proximity to the dams and levees they operate.

This research will not evaluate the decisions or actions of any agency or official regarding the Oroville Dam warnings and evacuation. Rather, it will collect data to improve warning and evacuation time estimates for any type of community emergency. The Oroville Dam incident was selected for study because it was a unique event that holds the potential to push the frontiers of warning and evacuation knowledge forward. *None of the people who participate in the study will be named or identified. All participants will be anonymous.*

If you have any questions relating to this study, please contact:

Jason Needham, P.E.  
Risk Management Center  
U.S. Army Corps of Engineers  
(530) 219-7457  
609 2nd Street, Davis, CA 95616



**APPENDIX 4**  
**GENERIC EMERGENCY MANAGER INTERVIEW SCHEDULE**

## EMERGENCY MANAGER (EM) INTERVIEW SCHEDULE

Event Name: \_\_\_\_\_

Event Location: \_\_\_\_\_

Event Date: \_\_\_\_\_

Jurisdiction: \_\_\_\_\_

Organization: \_\_\_\_\_

Official's Name: \_\_\_\_\_

Official's Title: \_\_\_\_\_

Role in Event: \_\_\_\_\_

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

Interview Date: \_\_\_\_\_

***The purpose of this interview is to collect information about the issuance, diffusion, and content of public alerts, warnings, and press releases for the (insert event name, date, and location here). I will be writing down your answers as we go, so please try to speak slowly.***

***First, I have some questions about the plans you had in place when the (insert event name here) occurred.***

- Q 1. Did you have a general emergency operations plan (EOP) in place before the event began? **YES/NO**
- Q 2. Did you have a general warning plan or a public alert/warning annex to a general plan in place before the event began? **YES/NO**
- Q 3. Did you have standard operating procedures (SOPs) for alerts/warnings in place before the event began? **YES/NO**
- Q 4. Did you have a Field Operations Guide (FOG) for alerts/warnings in place before the event began? **YES/NO**
- Q 5. Did you have a hazard-specific warning plan in place for the type of event that occurred? **YES/NO**

Q 6. Did you have hazard-specific standard operating procedures (SOPs) in place for the type of event that occurred? **YES/NO**

Q 7. Were flood hazard inundation maps available to you before the event began? **YES/NO**

(IF YES) Describe (**RECORD RESPONSE VERBATIM**) \_\_\_\_\_

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*(Use back of sheet if more space is needed)*

(IF NO) Were any flood hazard inundation maps made available to you during the event? **YES/NO**

(IF YES) Describe (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

***The next questions are about how your community decided to issue the first public alert and warning message during the (insert event name) and how it was disseminated.***

Q 8. On what day and time did you first learn that a flood event may occur?

DATE \_\_\_\_\_

TIME \_\_\_\_\_ (AM/PM)

Q 9. Who communicated that information to you? (**RECORD RESPONSE VERBATIM**) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
*(Use back of sheet if more space is needed)*

Q 10. How did they communicate it to you? (**RECORD RESPONSE VERBATIM**)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*(Use back of sheet if more space is needed)*

Q 11. Did you communicate with any people in organizations responsible for monitoring the pending flood event before making the decision to issue the first alert/warning message to the public? **YES/NO**

(IF YES) What organizations? (**RECORD RESPONSE VERBATIM**)

\_\_\_\_\_  
\_\_\_\_\_  
*(Use back of sheet if more space is needed)*

(IF YES) What did you discuss? (**RECORD RESPONSE VERBATIM**)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*(Use back of sheet if more space is needed)*

(IF YES OR NO) Did you have any technical difficulties communicating with them? **(RECORD RESPONSE VERBATIM)**

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*(Use back of sheet if more space is needed)*

(IF YES OR NO) Was there anything else that hindered communicating with them? **(RECORD RESPONSE VERBATIM)**

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*(Use back of sheet if more space is needed)*

Q 12. How was the decision made to issue the first public alert/warning message? **(RECORD RESPONSE VERBATIM)**

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*(Use back of sheet if more space is needed)*

Q 13. Who made that decision? **(RECORD RESPONSE VERBATIM)** \_\_\_\_\_

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*(Use back of sheet if more space is needed)*

Q 14. Did they need to obtain political clearance/approval from anyone else before the public could be alerted/warned? **YES/NO**

(IF YES) Describe (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

(IF YES) How long did it take? \_\_\_Hours \_\_\_ Minutes

Q 15. What day and time was the decision made to issue the first public alert/warning?

DATE \_\_\_\_\_

TIME \_\_\_\_\_ (AM/PM)

Q 16. How much time after that decision was made to issue the first public alert/warning did it take before it was first disseminated?

\_\_\_\_\_Hours \_\_\_\_\_ Minutes

Q 17. Was the first public alert/warning message a pre-scripted message, based on a template, or written from scratch? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 18. Who prepared the message? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 19. Was the message coordinated with any other jurisdiction? **YES/NO**

(IF YES) Describe (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 20. How long did it take to prepare? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 21. May I have a copy of the first public alert/warning message issued for the event?  
**YES/NO**

(IF NO) What did the message say? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 22. Did your jurisdiction use a multiple channel alert/notification distribution system?  
**(YES/NO)**

(IF YES): What is the name of the system/vendor?

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Q 23. What specific channels/technologies were used to distribute the first public alert/warning message? **(CHECK ALL THAT APPLY)**

- Route alerting (door to door or from vehicles)
- Fixed location loudspeakers & public address systems
- Wireless Emergency Alerts (WEA) system
- Short Message Service (SMS) opt in system
- Radio
- Television
- Press conference
- Newspaper
- NOAA Weather Radio
- Tone alert radios dedicated to dam or levee emergencies
- Audio sirens and alarms
- Broadcast voice sirens
- Message signs
- Aircraft
- Visual alerting
- Email to the public
- Text messages to the public
- Social media, e.g., Twitter and Facebook
- Website(s)
- Reverse telephone distribution system
- TDD/TTY
- Other **(RECORD RESPONSE VERBATIM)** \_\_\_\_\_

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*(Use back of sheet if more space is needed)*

Q 24. Did any of the technologies used to deliver the first public alert/warning message fail during the event? **YES/NO**

(IF YES) Describe **(RECORD RESPONSE VERBATIM)**

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*(Use back of sheet if more space is needed)*



Q 25. Did you have people in your jurisdiction engaged in any of the following activities, in any of the following locations, or in any of the following groups when the first public alert/warning message was issued, and did you use special dissemination channels or technologies to provide them with the first alert/warning message? **(CHECK ALL THAT APPLY)**

	<u>PEOPLE</u>	<u>SPECIAL WAY TO DISSEMINATE</u>
Boating	<input type="checkbox"/>	<input type="checkbox"/>
Camping	<input type="checkbox"/>	<input type="checkbox"/>
Hiking	<input type="checkbox"/>	<input type="checkbox"/>
Recreational activities near water	<input type="checkbox"/>	<input type="checkbox"/>
Hospitals	<input type="checkbox"/>	<input type="checkbox"/>
Group homes	<input type="checkbox"/>	<input type="checkbox"/>
Prisons/jails	<input type="checkbox"/>	<input type="checkbox"/>
Shopping centers	<input type="checkbox"/>	<input type="checkbox"/>
Schools	<input type="checkbox"/>	<input type="checkbox"/>
Agricultural workers in fields	<input type="checkbox"/>	<input type="checkbox"/>
Out-of-town visitors	<input type="checkbox"/>	<input type="checkbox"/>
Homeless	<input type="checkbox"/>	<input type="checkbox"/>
Unique subcultures, e.g., the Amish	<input type="checkbox"/>	<input type="checkbox"/>
Other areas where people congregate	<input type="checkbox"/>	<input type="checkbox"/>

Q 26. Did you use special dissemination channels or technologies to deliver the first alert/warning message to people in the highest risk areas, for example, people living right below a dam or next to a levee? **YES/NO**

(IF YES) Describe (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 27. Did you use special dissemination channels or technologies to wake people up who were sleeping to provide them with the first alert/warning message? **YES/NO**

(IF YES) Describe (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 28. Did you use special dissemination channels or technologies to deliver the first alert/warning message to people who are hearing impaired? **YES/NO**

(IF YES) Describe (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 29. Did you use special dissemination channels or technologies to deliver the first alert/warning message to people who are visually impaired? **YES/NO**

(IF YES) Describe (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 30. Did you provide the first public alert/warning message in more than one language? **YES/NO**

(IF YES) Which ones? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 31. What percentage of the population that were potentially at risk to flooding in your jurisdiction would you estimate received the first public alert/warning message when it was initially disseminated?

\_\_\_\_\_ % (**OR DON'T KNOW**)

***The remaining questions are about public alert and warning messages that were issued after the first public alert/warning message.***

Q 32. Was the first public alert/warning message repeated more than once? **YES/NO**

(IF YES) By whom? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

(IF YES) How many times? (**RECORD RESPONSE VERBATIM**)

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---

*(Use back of sheet if more space is needed)*

(IF YES) By which channels? (**RECORD RESPONSE VERBATIM**)

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---

*(Use back of sheet if more space is needed)*

(IF YES) Over what time period? (**RECORD RESPONSE VERBATIM**)

---

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*(Use back of sheet if more space is needed)*

Q 33. Did you issue subsequent public alert/warning messages with revised or updated information? **YES/NO**

(IF YES) How many times? (**RECORD RESPONSE VERBATIM**)

---

---

*(Use back of sheet if more space is needed)*

(IF YES) By which channels? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

(IF YES) Over what time period? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 34. Over the lifetime of the event, which of the following channels/technologies did you use to distribute information to the public? (**CHECK ALL THAT APPLY**)

- Route alerting (door to door or from vehicles)
- Fixed location loudspeakers & public address systems
- Wireless Emergency Alerts (WEA) system
- Short Message Service (SMS) opt in system
- Radio
- Television
- Newspaper
- Press conferences
- NOAA Weather Radio
- Tone alert radios dedicated to dam or levee emergencies
- Audio sirens and alarms
- Broadcast voice sirens
- Message signs
- Aircraft
- Visual alerting
- Email to the public
- Text messages to the public
- Social media, e.g., Twitter and Facebook
- Website(s)
- Reverse telephone distribution system
- TDD/TTY
- Other (**RECORD RESPONSE VERBATIM**) \_\_\_\_\_

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*(Use back of sheet if more space is needed)*

Q 35. Over the duration of the event, did you monitor what people in the public were saying to each other, for example, over social media? **YES/NO**

(IF YES) How was it done? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

(IF YES) How did you deal with any incorrect information? (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

Q 36. Over the duration of the event, did you monitor what others might be telling the public to identify rumors and incorrect information? **YES/NO**

(IF YES) How was it done? (**RECORD RESPONSE VERBATIM**)

---

---

*(Use back of sheet if more space is needed)*

If rumors or incorrect information were detected, did you issue subsequent messages to correct the misinformation?  
**YES/NO/NOT APPLICABLE**

(IF YES) How was it done? (**RECORD RESPONSE VERBATIM**)

---

---

*(Use back of sheet if more space is needed)*

Q 37. May I have a copy of all subsequent public alert/warning messages and other public information issued during the event? **YES/NO**

Q 38. Is there any other information you think would be beneficial to us that you would like to share? **YES/NO**

(IF YES) Describe (**RECORD RESPONSE VERBATIM**)

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*(Use back of sheet if more space is needed)*

***Thank you for your time and help.***

***May we call you back if we have any further questions?*** \_\_\_\_\_

***Would you like to receive a copy of our results?*** \_\_\_\_\_

**APPENDIX 5**  
**GENERIC EMERGENCY MANAGER CHECKLIST**

## EMERGENCY MANAGEMENT OFFICIAL INTERVIEW CHECKLIST

Event Name: \_\_\_\_\_

Event Location: \_\_\_\_\_

Event Date: \_\_\_\_\_

Jurisdiction: \_\_\_\_\_

Organization: \_\_\_\_\_

Official's Name: \_\_\_\_\_

Official's Title: \_\_\_\_\_

Role in Event: \_\_\_\_\_

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

Interview Date: \_\_\_\_\_

***The purpose of this interview is to collect information about the issuance, dissemination, and content of public alerts, warnings, and press releases for the (insert event name, date, and location here).***

***First, I have some questions about the formally approved plans you had in place when the (insert event name here) occurred.***

Q 1. Did you have a general emergency operations plan (EOP) in place before the event began? **YES/NO**

Q 2. Did you have a general warning plan or a public alert/warning annex to a general plan in place before the event began? **YES/NO**

Q 3. Did you have standard operating procedures (SOPs) for alerts/warnings in place before the event began? **YES/NO**



- Q 4. Did you have a Field Operations Guide (FOG) for alerts/warnings in place before the event began? **YES/NO**
- Q 5. Did you have a hazard-specific warning plan in place for the type of event that occurred? **YES/NO**
- Q 6. Did you have hazard-specific standard operating procedures (SOPs) in place for the type of event that occurred? **YES/NO**
- Q 7. Were flood hazard inundation maps available to you before the event began? **YES/NO**

(IF YES) Describe \_\_\_\_\_

(IF NO) Were any flood hazard inundation maps made available to you during the event? **YES/NO**

(IF YES) Describe \_\_\_\_\_

***The next questions are about how your community decided to issue the first public alert and warning message during the (insert event name) and how it was disseminated.***

- Q 8. On what day and time did you first learn that a flood event may occur?

DATE \_\_\_\_\_

TIME \_\_\_\_\_ (AM/PM)

- Q 9. Who communicated that information to you? \_\_\_\_\_

- Q 10. How did they communicate it to you? \_\_\_\_\_

- Q 11. Did you communicate with any people in organizations responsible for monitoring the pending flood event before making the decision to issue the first alert/warning message to the public? **YES/NO**

(IF YES) What organizations? \_\_\_\_\_

What did you discuss? \_\_\_\_\_

(IF YES OR NO) Did you have any technical difficulties communicating with them? \_\_\_\_\_

Was there anything else that hindered communicating with them? \_\_\_\_\_

Q 12. How was the decision made to issue the first public alert/warning message?  
\_\_\_\_\_

Q 13. Who made that decision? \_\_\_\_\_

Q 14. Did they need to obtain political clearance/approval from anyone else before the public could be alerted/warned? **YES/NO**

(IF YES) Describe \_\_\_\_\_

(IF YES) How long did it take? \_\_\_\_Hours \_\_\_\_ Minutes

Q 15. What day and time was the decision made to issue the first public alert/warning?

DATE \_\_\_\_\_

TIME \_\_\_\_\_ (AM/PM)

Q 16. How much time after that decision was made to issue the first public alert/warning did it take before it was first disseminated?

\_\_\_\_\_Hours \_\_\_\_ Minutes

Q 17. Was the first public alert/warning message a pre-scripted message, based on a template, or written from scratch? \_\_\_\_\_

Q 18. Who prepared the message? \_\_\_\_\_

Q 19. Was the message coordinated with any other jurisdiction? **YES/NO**

(IF YES) Describe \_\_\_\_\_

Q 20. How long did it take to prepare? \_\_\_\_\_

Q 21. May I have a copy of the first public alert/warning message issued for the event?  
**YES/NO**

(IF NO) What did the message say? \_\_\_\_\_

Q 22. Did your jurisdiction use a multiple channel alert/notification distribution system?  
**(YES/NO)**

(IF YES): What is the name of the system/vendor?  
\_\_\_\_\_

Q 23. What specific channels/technologies were used to distribute the first public alert/warning message? **(CHECK ALL THAT APPLY)**

- Route alerting (door to door or from vehicles)
- Fixed location loudspeakers & public address systems
- Wireless Emergency Alerts (WEA) system
- Short Message Service (SMS) opt in system
- Radio
- Television
- Press conference
- Newspaper
- NOAA Weather Radio
- Tone alert radios dedicated to dam or levee emergencies
- Audio sirens and alarms
- Broadcast voice sirens
- Message signs
- Aircraft
- Visual alerting
- Email to the public
- Text messages to the public
- Social media, e.g., Twitter and Facebook
- Website(s)
- Reverse telephone distribution system
- TDD/TTY
- Other \_\_\_\_\_

Q 24. Did any of the technologies used to deliver the first public alert/warning message fail during the event? **YES/NO**

(IF YES) Describe \_\_\_\_\_

Q 25. Did you have people in your jurisdiction engaged in any of the following activities, in any of the following locations, or in any of the following groups when the first public alert/warning message was issued, and did you use special dissemination channels or technologies to provide them with the first alert/warning message? **(CHECK ALL THAT APPLY)**

	<u>PEOPLE</u>	<u>SPECIAL WAY TO DISSEMINATE</u>
Boating	<input type="checkbox"/>	<input type="checkbox"/>
Camping	<input type="checkbox"/>	<input type="checkbox"/>
Hiking	<input type="checkbox"/>	<input type="checkbox"/>
Recreational activities near water	<input type="checkbox"/>	<input type="checkbox"/>
Hospitals	<input type="checkbox"/>	<input type="checkbox"/>
Group homes	<input type="checkbox"/>	<input type="checkbox"/>
Prisons/jails	<input type="checkbox"/>	<input type="checkbox"/>
Shopping centers	<input type="checkbox"/>	<input type="checkbox"/>
Schools	<input type="checkbox"/>	<input type="checkbox"/>
Agricultural workers in fields	<input type="checkbox"/>	<input type="checkbox"/>
Out-of-town visitors	<input type="checkbox"/>	<input type="checkbox"/>
Homeless	<input type="checkbox"/>	<input type="checkbox"/>
Unique subcultures, e.g., the Amish	<input type="checkbox"/>	<input type="checkbox"/>
Other areas where people congregate	<input type="checkbox"/>	<input type="checkbox"/>

Q 26. Did you use special dissemination channels or technologies to deliver the first alert/warning message to people in the highest risk areas, for example, people living right below a dam or next to a levee? **YES/NO**

(IF YES) Describe \_\_\_\_\_

Q 27. Did you use special dissemination channels or technologies to wake people up who were sleeping to provide them with the first alert/warning message? **YES/NO**

(IF YES) Describe \_\_\_\_\_

Q 28. Did you use special dissemination channels or technologies to deliver the first alert/warning message to people who are hearing impaired? **YES/NO**

(IF YES) Describe \_\_\_\_\_

Q 29. Did you use special dissemination channels or technologies to deliver the first alert/warning message to people who are visually impaired? **YES/NO**

(IF YES) Describe \_\_\_\_\_

Q 30. Did you provide the first public alert/warning message in more than one language? **YES/NO**

(IF YES) Which ones? \_\_\_\_\_

Q 31. What percentage of the population that were potentially at risk to flooding in your jurisdiction would you estimate received the first public alert/warning message when it was initially disseminated?

\_\_\_\_\_ % (OR **DON'T KNOW**)

***The remaining questions are about public alert and warning messages that were issued after the first public alert/warning message.***

Q 32. Was the first public alert/warning message repeated more than once? **YES/NO**

(IF YES) By whom? \_\_\_\_\_

How many times? \_\_\_\_\_

By which channels? \_\_\_\_\_

Over what time period? \_\_\_\_\_

Q 33. Did you issue subsequent public alert/warning messages with revised or updated information? **YES/NO**

(IF YES) How many times? \_\_\_\_\_

By which channels? \_\_\_\_\_

Over what time period? \_\_\_\_\_

Q 34. Over the lifetime of the event, which of the following channels/technologies did you use to distribute information to the public? (**CHECK ALL THAT APPLY**)

- Route alerting (door to door or from vehicles)
- Fixed location loudspeakers & public address systems
- Wireless Emergency Alerts (WEA) system

- Short Message Service (SMS) opt in system
- Radio
- Television
- Newspaper
- Press conferences
- NOAA Weather Radio
- Tone alert radios dedicated to dam or levee emergencies
- Audio sirens and alarms
- Broadcast voice sirens
- Message signs
- Aircraft
- Visual alerting
- Email to the public
- Text messages to the public
- Social media, e.g., Twitter and Facebook
- Website(s)
- Reverse telephone distribution system
- TDD/TTY
- Other \_\_\_\_\_

Q 35. Over the duration of the event, did you monitor what people in the public were saying to each other, for example, over social media? **YES/NO**

(IF YES) How was it done? \_\_\_\_\_

How did you deal with any incorrect information? \_\_\_\_\_

Q 36. Over the duration of the event, did you monitor what others might be telling the public to identify rumors and incorrect information? **YES/NO**

(IF YES) How was it done? \_\_\_\_\_

If rumors or incorrect information were detected, did you issue subsequent messages to correct the misinformation?  
**YES/NO/NOT APPLICABLE**

(IF YES) How was it done? \_\_\_\_\_

Q 37. May I have a copy of all subsequent public alert/warning messages and other public information issued during the event? **YES/NO**

Q 38. Is there any other information you think would be beneficial to us that you would like to share? **YES/NO**

(IF YES) Describe \_\_\_\_\_

*Thank you for your time and help.*

*May we call you back if we have any further questions?* \_\_\_\_\_

*Would you like to receive a copy of our results?* \_\_\_\_\_

**APPENDIX 6**  
**GENERIC EMERGENCY MANAGER CODEBOOK**



## EMERGENCY MANAGER (EM) INTERVIEW CODEBOOK

Event Name: \_\_\_\_\_

Event Location: \_\_\_\_\_

Event Date: \_\_\_\_\_

Jurisdiction: \_\_\_\_\_

Organization: \_\_\_\_\_

Official's Name: \_\_\_\_\_

Official's Title: \_\_\_\_\_

Role in Event: \_\_\_\_\_

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

Interview Date: \_\_\_\_\_

***The purpose of this interview is to collect information about the issuance, diffusion, and content of public alerts, warnings, and press releases for the (insert event name, date, and location here).***

***First, I have some questions about the plans you had in place when the (insert event name here) occurred.***

### **GENERAL EMERGENCY PLAN**

Q 1. Did you have a general emergency operations plan (EOP) in place before the event began? **YES/NO**

### **ISSUANCE FORMALIZATION: WRITTEN WARNING PLAN**

Q 2. Did you have a general warning plan or a public alert/warning annex to a general plan in place before the event began? **YES/NO**

### **ISSUANCE FORMALIZATION: WRITTEN WARNING PROCEDURES**

Q 3. Did you have standard operating procedures (SOPs) for alerts/warnings in place before the event began? **YES/NO**

### **ISSUANCE FORMALIZATION: WRITTEN OPERATIONS PROCEDURES**

Q 4. Did you have a Field Operations Guide (FOG) for alerts/warnings in place before the event began? **YES/NO**

**ISSUANCE FORMALIZATION: WRITTEN THREAT-SPECIFIC WARNING PLANS**

Q 5. Did you have a hazard-specific warning plan in place for the type of event that occurred? **YES/NO**

**ISSUANCE FORMALIZATION: WRITTEN THREAT-SPECIFIC PROCEDURES**

Q 6. Did you have hazard-specific standard operating procedures (SOPs) in place for the type of event that occurred? **YES/NO**

**HAZARD LOCATION**

Q 7. Were flood hazard inundation maps available to you before the event began?  
**YES/NO**

(IF YES) Describe \_\_\_\_\_

(IF NO) Were any flood hazard inundation maps made available to you during the event? **YES/NO**

(IF YES) Describe \_\_\_\_\_

***The next questions are about how your community decided to issue the first public alert and warning message during the (insert event name) and how it was disseminated.***

**RISK INFORMATION FIRST RECEIVED: DATE AND TIME**

Q 8. On what day and time did you first learn that a flood event may occur?

DATE \_\_\_\_\_

TIME \_\_\_\_\_ (AM/PM)

**RISK INFORMATION FIRST RECEIVED: SOURCE**

Q 9. Who communicated that information to you? \_\_\_\_\_

**RISK INFORMATION FIRST RECEIVED: COMMUNICATION CHANNEL**

Q 10. How did they communicate it to you? \_\_\_\_\_

**RISK INFORMATION CONFIRMATION**

Q 11. Did you communicate with any people in organizations responsible for monitoring the pending flood event before making the decision to issue the first alert/warning message to the public? **YES/NO**

(IF YES) What organizations? \_\_\_\_\_

What did you discuss? \_\_\_\_\_

(IF YES OR NO) Did you have any technical difficulties communicating with them? \_\_\_\_\_

Was there anything else that hindered communicating with them? \_\_\_\_\_

**FIRST WARNING DECISION: PROCESS**

Q 12. How was the decision made to issue the first public alert/warning message?  
\_\_\_\_\_

**FIRST WARNING DECISION: DECISION MAKER**

Q 13. Who made that decision? \_\_\_\_\_

**FIRST WARNING DECISION: HEIRARCHAL CONSTRAINTS**

Q 14. Did they need to obtain political clearance/approval from anyone else before the public could be alerted/warned? **YES/NO**

(IF YES) Describe \_\_\_\_\_

(IF YES) How long did it take? \_\_\_Hours \_\_\_ Minutes

**FIRST WARNING DECISION: DATE AND TIME**

Q 15. What day and time was the decision made to issue the first public alert/warning?

DATE \_\_\_\_\_

TIME \_\_\_\_\_ (AM/PM)

**FIRST WARNING MESSAGE: TIME LAG**

Q 16. How much time after that decision was made to issue the first public alert/warning did it take before it was first disseminated?

\_\_\_\_\_Hours \_\_\_\_\_ Minutes

**FIRST WARNING MESSAGE: WRITING PROCESS**

Q 17. Was the first public alert/warning message a pre-scripted message, based on a template, or written from scratch? \_\_\_\_\_

**FIRST WARNING MESSAGE: AUTHOR**

Q 18. Who prepared the message? \_\_\_\_\_

**FIRST WARNING MESSAGE: COORDINATION**

Q 19. Was the message coordinated with any other jurisdiction? **YES/NO**

(IF YES) Describe \_\_\_\_\_

**FIRST WARNING MESSAGE: PREPARATION TIME**

Q 20. How long did it take to prepare? \_\_\_\_\_

**EVENT WARNING MESSAGES**

Q 21. May I have a copy of the first public alert/warning message issued for the event?  
**YES/NO**

(IF NO) What did the message say? \_\_\_\_\_

**FIRST WARNING MESSAGE ISSUANCE: DISTRIBUTION SYSTEM**

Q 22. Did your jurisdiction use a multiple channel alert/notification distribution system?  
**(YES/NO)**

(IF YES): What is the name of the system/vendor?  
\_\_\_\_\_

**FIRST WARNING MESSAGE ISSUANCE: CHANNEL**

Q 23. What specific channels/technologies were used to distribute the first public alert/warning message? **(CHECK ALL THAT APPLY)**

- Route alerting (door to door or from vehicles)
- Fixed location loudspeakers & public address systems
- Wireless Emergency Alerts (WEA) system
- Short Message Service (SMS) opt in system
- Radio
- Television
- Press conference
- Newspaper
- NOAA Weather Radio
- Tone alert radios dedicated to dam or levee emergencies
- Audio sirens and alarms
- Broadcast voice sirens
- Message signs
- Aircraft
- Visual alerting
- Email to the public
- Text messages to the public
- Social media, e.g., Twitter and Facebook
- Website(s)
- Reverse telephone distribution system
- TDD/TTY
- Other \_\_\_\_\_

**FIRST WARNING MESSAGE ISSUANCE: TECHNOLOGICAL FAILURES**

Q 24. Did any of the technologies used to deliver the first public alert/warning message fail during the event? **YES/NO**

(IF YES) Describe \_\_\_\_\_

**DIFFUSION RECEIVING CONTEXT: TASKS/ACTIVITY, LOCATION, SES, CULTURAL IMPEDIMENTS**

Q 25. Did you have people in your jurisdiction engaged in any of the following activities, in any of the following locations, or in any of the following groups when the first public alert/warning message was issued, and did you use special dissemination channels or technologies to provide them with the first alert/warning message? (**CHECK ALL THAT APPLY**)

	<u>PEOPLE</u>	<u>SPECIAL WAY TO DISSEMINATE</u>
Boating	<input type="checkbox"/>	<input type="checkbox"/>
Camping	<input type="checkbox"/>	<input type="checkbox"/>
Hiking	<input type="checkbox"/>	<input type="checkbox"/>
Recreational activities near water	<input type="checkbox"/>	<input type="checkbox"/>
Hospitals	<input type="checkbox"/>	<input type="checkbox"/>
Group homes	<input type="checkbox"/>	<input type="checkbox"/>
Prisons/jails	<input type="checkbox"/>	<input type="checkbox"/>
Shopping centers	<input type="checkbox"/>	<input type="checkbox"/>
Schools	<input type="checkbox"/>	<input type="checkbox"/>
Agricultural workers in fields	<input type="checkbox"/>	<input type="checkbox"/>
Out-of-town visitors	<input type="checkbox"/>	<input type="checkbox"/>
Homeless	<input type="checkbox"/>	<input type="checkbox"/>
Unique subcultures, e.g., the Amish	<input type="checkbox"/>	<input type="checkbox"/>
Other areas where people congregate	<input type="checkbox"/>	<input type="checkbox"/>

**DIFFUSION RECEIVING CONTEXT: PROXIMITY**

Q 26. Did you use special dissemination channels or technologies to deliver the first alert/warning message to people in the highest risk areas, for example, people living right below a dam or next to a levee? **YES/NO**

(IF YES) Describe \_\_\_\_\_

**DIFFUSION RECEIVING CONTEXT: NIGHTTIME**

Q 27. Did you use special dissemination channels or technologies to wake people up who were sleeping to provide them with the first alert/warning message? **YES/NO**

(IF YES) Describe \_\_\_\_\_

**DIFFUSION RECEIVING IMPEDIMENTS: HEARING**

Q 28. Did you use special dissemination channels or technologies to deliver the first alert/warning message to people who are hearing impaired? **YES/NO**

(IF YES) Describe \_\_\_\_\_

**DIFFUSION RECEIVING IMPEDIMENTS: VISUAL**

Q 29. Did you use special dissemination channels or technologies to deliver the first alert/warning message to people who are visually impaired? **YES/NO**

(IF YES) Describe \_\_\_\_\_

**DIFFUSION RECEIVING IMPEDIMENTS: LINGUISTIC**

Q 30. Did you provide the first public alert/warning message in more than one language? **YES/NO**

(IF YES) Which ones? \_\_\_\_\_

**DIFFUSION EFFECTIVENESS**

Q 31. What percentage of the population that were potentially at risk to flooding in your jurisdiction would you estimate received the first public alert/warning message when it was initially disseminated?

\_\_\_\_\_ % (OR **DON'T KNOW**)

***The remaining questions are about public alert and warning messages that were issued after the first public alert/warning message.***

**FIRST WARNING MESSAGE ISSUANCE: REPETITION**

Q 32. Was the first public alert/warning message repeated more than once? **YES/NO**

(IF YES) By whom? \_\_\_\_\_

How many times? \_\_\_\_\_

By which channels? \_\_\_\_\_

Over what time period? \_\_\_\_\_

**SUBSEQUENT WARNING MESSAGE ISSUANCE: UPDATES**

Q 33. Did you issue subsequent public alert/warning messages with revised or updated information? **YES/NO**

(IF YES) How many times? \_\_\_\_\_

By which channels? \_\_\_\_\_

Over what time period? \_\_\_\_\_

**SUBSEQUENT WARNING MESSAGE ISSUANCE: CHANNELS**

Q 34. Over the lifetime of the event, which of the following channels/technologies did you use to distribute information to the public? **(CHECK ALL THAT APPLY)**

- Route alerting (door to door or from vehicles)
- Fixed location loudspeakers & public address systems
- Wireless Emergency Alerts (WEA) system
- Short Message Service (SMS) opt in system
- Radio
- Television
- Newspaper
- Press conferences
- NOAA Weather Radio
- Tone alert radios dedicated to dam or levee emergencies
- Audio sirens and alarms
- Broadcast voice sirens
- Message signs
- Aircraft
- Visual alerting
- Email to the public
- Text messages to the public
- Social media, e.g., Twitter and Facebook
- Website(s)
- Reverse telephone distribution system
- TDD/TTY
- Other \_\_\_\_\_

**DIFFUSION WARNING: INFORMAL WARNING**

Q 35. Over the duration of the event, did you monitor what people in the public were saying to each other, for example, over social media? **YES/NO**

(IF YES) How was it done? \_\_\_\_\_

How did you deal with any incorrect information? \_\_\_\_\_

**PAI MESSAGE STYLE: CONSISTENCY**

Q 36. Over the duration of the event, did you monitor what others might be telling the public to identify rumors and incorrect information? **YES/NO**

(IF YES) How was it done? \_\_\_\_\_

If rumors or incorrect information were detected, did you issue subsequent messages to correct the misinformation?  
**YES/NO/NOT APPLICABLE**

(IF YES) How was it done? \_\_\_\_\_

**EVENT WARNING MESSAGES**

Q 37. May I have a copy of all subsequent public alert/warning messages and other public information issued during the event? **YES/NO**

**OTHER INFORMATION**

Q 38. Is there any other information you think would be beneficial to us that you would like to share? **YES/NO**

(IF YES) Describe \_\_\_\_\_

*Thank you for your time and help.*

*May we call you back if we have any further questions?* \_\_\_\_\_

*Would you like to receive a copy of our results?* \_\_\_\_\_



**APPENDIX 7**  
**OROVILLE PUBLIC QUESTIONNAIRE**

# QUESTIONNAIRE

## PUBLIC RESPONSE TO THE OROVILLE DAM ALERTS AND WARNINGS DURING FEBRUARY 2017



*(Please read our letter to you inside the front cover)*



US Army Corps  
of Engineers.

## LETTER OF EXPLANATION

### **About Our Study**

The Survey Research Center at California State University Fullerton is working with the U.S. Army Corps of Engineers and disaster researchers to collect information from people in Butte, Sutter, and Yuba counties about their experiences and responses to the public alerts and warnings issued during the February 2017 Oroville Dam event. The information we collect will help the nation better prepare for future dam and levee emergencies.

### **It's Important that You Participate**

You have been selected as part of a small sample of people asked to complete and return this questionnaire. Your participation will enable us to generalize our findings to all of the people who were asked to evacuate on February 12, 2017. Please fill out the questionnaire and return it to us in the self-addressed postage paid envelope, which is attached. It should take about 20 minutes or less to complete.

### **Your Answers will be Kept Confidential**

All of the information that you provide will be kept confidential to the extent permitted by law. To assure participant confidentiality, the question answers we receive from respondents like you will be grouped, and never associated with the individuals who answered the questions.

### **Who Should Complete This Questionnaire?**

This questionnaire should only be completed if we have sent it to a home or residence of people who lived in Butte, Sutter, or Yuba counties on February 12, 2017. If not, the questionnaire should be discarded. Additionally, a person who is 18 years of age or older who is also a head of your household should complete this questionnaire. If that's not you, please give it to the person you consider to be a head of your household.

Please complete and return this questionnaire as soon as possible. A \$15 gift card will be sent to the first 800 people who complete and return this questionnaire. At the end of the questionnaire you will be asked to provide your mailing address for delivery of the gift card. Your questionnaire responses will be kept separate from this information, which will be destroyed once the card has been sent to you.

### **Other Considerations**

We do not expect that there will be any risks to you for participating in this study beyond those experienced in daily life. However, you may choose to answer this questionnaire or not. If you choose not to, this will not affect you negatively in any way. You may also choose not to answer any question in the survey or choose to stop doing the survey even if you have started it. Neither the SSRC, its director Laura Gil-Trejo, nor the researchers associated with this study will lose or gain money based on the results of the study.

If you want to know more about this study, please call our director Laura Gil-Trejo at (657) 278-7691 or email her at [lgil-trejo@fullerton.edu](mailto:lgil-trejo@fullerton.edu). If you have questions about your rights as a research participant, you may contact the California State University, Fullerton Regulatory Compliance Coordinator at (657) 278-7640 or send your questions by email to [irb@fullerton.edu](mailto:irb@fullerton.edu).

**THANK YOU**

**THE FIRST QUESTIONS ASK ABOUT THINGS IN THE TIME PERIOD *BETWEEN* WHEN THE OROVILLE DAM EVENT FIRST BEGAN ON FEBRUARY 7, 2017 UNTIL JUST BEFORE THE EVACUATION MESSAGES WERE ISSUED ON FEBRUARY 12, 2017.**

- Q1. How many total hours would you estimate you spent watching, reading, or listening to media and internet reports about what was happening at the Oroville Dam before the official evacuation began? **(FILL IN A NUMBER BELOW)**

\_\_\_\_\_ NUMBER OF HOURS

- Q2. How many total hours would you estimate you spent talking with other people, such as friends, relatives, co-workers, and strangers, about what was happening at the Oroville Dam before the official evacuation began? **(FILL IN A NUMBER BELOW)**

\_\_\_\_\_ NUMBER OF HOURS

**THE NEXT QUESTIONS ARE ABOUT WHERE YOU LIVED AND WORKED ON FEBRUARY 12, 2017, THE DAY THE EVACUATION BEGAN.**

- Q3. Which of the following counties best describes where you *lived* on February 12, 2017? **(CIRCLE ONE)**

- 1 = BUTTE COUNTY
- 2 = SUTTER COUNTY
- 3 = YUBA COUNTY

Q4. Which of the following cities, towns, or places best describes where you lived on February 12, 2017? **(CIRCLE ONE)**

- 1 = OROVILLE
- 2 = SOUTH OROVILLE
- 3 = EAST OROVILLE
- 4 = PALERMO
- 5 = THERMALITO
- 6 = EAST BRIGGS
- 7 = GRIDLEY CITY
- 8 = EAST GRIDLEY
- 9 = YUBA CITY
- 10 = LOMO
- 11 = LIVE OAK
- 12 = TIERRA BUENA
- 13 = NICHOLAS
- 14 = RIO OSO
- 15 = PLEASANT GROVE
- 16 = ROBBINS
- 17 = MARYSVILLE
- 18 = HALLWOOD
- 19 = LINDA
- 20 = OLIVEHURST
- 21 = PLUMAS LAKE
- 22 = WHEATLAND
- 23 = DISTRICT 10
- 24 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q5. Which of the following counties best describes where you worked on February 12, 2017? **(CIRCLE ONE)**

- 1 = BUTTE COUNTY
- 2 = SUTTER COUNTY
- 3 = YUBA COUNTY
- 4 = SACRAMENTO COUNTY
- 5 = YOLO COUNTY
- 6 = OTHER **(SPECIFY: \_\_\_\_\_)**
- 9 = I WASN'T EMPLOYED ON FEBRUARY 12, 2017

Q6. Which of the following cities, towns, or places best describes where you worked on February 12, 2017? **(CIRCLE ONE)**

- 1 = OROVILLE
- 2 = SOUTH OROVILLE
- 3 = EAST OROVILLE
- 4 = PALERMO
- 5 = THERMALITO
- 6 = EAST BRIGGS
- 7 = GRIDLEY CITY
- 8 = EAST GRIDLEY
- 9 = YUBA CITY
- 10 = LOMO
- 11 = LIVE OAK
- 12 = TIERRA BUENA
- 13 = NICHOLAS
- 14 = RIO OSO
- 15 = PLEASANT GROVE
- 16 = ROBBINS
- 17 = MARYSVILLE
- 18 = HALLWOOD
- 19 = LINDA
- 20 = OLIVEHURST
- 21 = PLUMAS LAKE
- 22 = WHEATLAND
- 23 = DISTRICT 10
- 24 = SACRAMENTO
- 25 = OTHER **(SPECIFY: \_\_\_\_\_)**
- 99 = I WASN'T EMPLOYED ON FEBRUARY 12, 2017

**THE NEXT QUESTIONS ARE ABOUT THE "FIRST EVACUATION MESSAGE" YOU RECEIVED ON OR AFTER FEBRUARY 12, 2017. BY MESSAGE WE MEAN INFORMATION FROM GOVERNMENT, MEDIA, OR PERSONAL CONTACTS SUCH AS FRIENDS, RELATIVES, OR CO-WORKERS.**

***IF YOU DID NOT RECEIVE AN EVACUATION MESSAGE, SKIP TO QUESTION 25***

Q7. Think about the *first* evacuation message you received aimed at people in the area in which you were located. What day did you get that message? **(CIRCLE ONE)**

- 1 = SUNDAY, FEBRUARY 12
- 2 = MONDAY, FEBRUARY 13
- 9 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q8. Think about the *first* evacuation message you received aimed at people in the area in which you were located. What time did you get that message?  
**(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOUR \_\_\_\_\_ MINUTE \_\_\_\_\_ AM or PM \_\_\_\_\_

Q9. How was the first evacuation message you received communicated to you? **(CIRCLE ONE)**

- 1 = LAND LINE TELEPHONE WITH A RECORDED MESSAGE
- 2 = LAND LINE TELEPHONE WITH A LIVE PERSON
- 3 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE
- 4 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON
- 5 = TEXT MESSAGE - ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE
- 6 = INTERNET - AN EMAIL
- 7 = INTERNET - SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK
- 8 = INTERNET - WEBSITE
- 9 = FACE-TO-FACE FROM AN AUTHORITY
- 10 = FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER
- 11 = AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER
- 12 = TELEVISION
- 13 = RADIO
- 14 = TONE ALERT NATIONAL WEATHER SERVICE RADIO
- 15 = OUTDOOR WARNING SIREN
- 16 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q10. Still thinking about the first message you received, who was that message from?  
**(CIRCLE ONE)**

- 1 = LOCAL POLICE
- 2 = LOCAL FIRE DEPARTMENT
- 3 = GOVERNOR'S OFFICE OF EMERGENCY SERVICES
- 4 = CAL FIRE
- 5 = BUTTE COUNTY SHERIFF
- 6 = SUTTER COUNTY SHERIFF
- 7 = YUBA COUNTY SHERIFF
- 8 = YUBA CITY OFFICIALS
- 9 = CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)
- 10 = NATIONAL WEATHER SERVICE
- 11 = FAMILY MEMBER OR OTHER RELATIVE
- 12 = NEIGHBOR OR FRIEND
- 13 = EMPLOYER
- 14 = CO-WORKER
- 15 = TV, RADIO, OR INTERNET BROADCASTER
- 16 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q11. Where were you when you received your first evacuation message? **(CIRCLE ONE)**

- 1 = AT HOME
- 2 = AT WORK
- 3 = SHOPPING AT A STORE
- 4 = DRIVING A VEHICLE
- 5 = PASSENGER IN A VEHICLE
- 6 = PASSENGER IN A PUBLIC TRANSIT VEHICLE
- 7 = IN TRANSIT – NOT IN A VEHICLE
- 8 = ENGAGED IN AN OUTDOOR RECREATIONAL ACTIVITY
- 9 = ENGAGED IN AN INDOOR RECREATIONAL ACTIVITY
- 10 = AT A RELATIVE'S OR FRIEND'S PLACE
- 11 = OTHER **(SPECIFY \_\_\_\_\_)**



Q12. Which of the following places best describes where you were when you received your first evacuation message? **(CIRCLE ONE)**

- 1 = OROVILLE
- 2 = SOUTH OROVILLE
- 3 = EAST OROVILLE
- 4 = PALERMO
- 5 = THERMALITO
- 6 = EAST BRIGGS
- 7 = GRIDLEY CITY
- 8 = EAST GRIDLEY
- 9 = YUBA CITY
- 10 = LOMO
- 11 = LIVE OAK
- 12 = TIERRA BUENA
- 13 = NICHOLAS
- 14 = RIO OSO
- 15 = PLEASANT GROVE
- 16 = ROBBINS
- 17 = MARYSVILLE
- 18 = HALLWOOD
- 19 = LINDA
- 20 = OLIVEHURST
- 21 = PLUMAS LAKE
- 22 = WHEATLAND
- 23 = DISTRICT 10
- 24 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q13. Were you with members of your immediate family and /or pets when you received your first evacuation message? **(CIRCLE ONE)**

- 1 = NO
- 2 = YES, BUT ONLY SOME OF MY IMMEDIATE FAMILY AND PETS
- 3 = YES, ALL OF MY IMMEDIATE FAMILY AND SOME OF MY PETS
- 4 = YES, SOME OF MY IMMEDIATE FAMILY AND ALL OF MY PETS
- 5 = YES, ALL OF MY IMMEDIATE FAMILY AND PETS
- 9 = I HAVE NO IMMEDIATE FAMILY MEMBERS OR PETS

**THE FOLLOWING QUESTIONS ASK ABOUT WHAT YOU MAY HAVE THOUGHT WHEN YOU RECEIVED YOUR FIRST EVACUATION MESSAGE.**

Q14. How believable was the first evacuation message you received on a scale of 1 to 6 where 1 represents “not at all believable” and 6 represents “completely believable?” **(CIRCLE ONE)**

<u>NOT AT ALL</u> <u>BELIEVABLE</u>						<u>COMPLETELY</u> <u>BELIEVABLE</u>
1	2	3	4	5		6

Q15. After receiving your first evacuation message, how much would you say you understood each of the following things on a scale of 1 to 6 where 1 represents “did not understand at all” and 6 represents “fully understood?” **(CIRCLE ONE FOR EACH)**

	<u>DID NOT</u> <u>UNDERSTAND</u> <u>AT ALL</u>					<u>FULLY</u> <u>UNDERSTOOD</u>
A. What could happen at the dam?	1	2	3	4	5	6
B. The risk of flooding?	1	2	3	4	5	6
C. What to do to protect yourself?	1	2	3	4	5	6
D. What locations could be affected?	1	2	3	4	5	6
E. When you were supposed to evacuate?	1	2	3	4	5	6
F. How long you were supposed to stay away?	1	2	3	4	5	6
G. Who the message was from?	1	2	3	4	5	6

Q16. After receiving your first evacuation message, how much would you say you believed each of the following things on a scale of 1 to 6 where 1 represents “did not believe” and 6 represents “fully believed?” **(CIRCLE ONE FOR EACH)**

	<u>DID NOT</u> <u>BELIEVE</u>					<u>FULLY</u> <u>BELIEVED</u>
A. The emergency spillway would break	1	2	3	4	5	6
B. My home would be flooded	1	2	3	4	5	6
C. My town would be flooded	1	2	3	4	5	6

Q17. After receiving your first evacuation message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “not likely” and 6 represents “extremely likely?” **(CIRCLE ONE FOR EACH)**

	<u>NOT</u>				<u>EXTREMELY</u>	
	<u>LIKELY</u>				<u>LIKELY</u>	
A. The message was meant for me	1	2	3	4	5	6
B. I might become injured	1	2	3	4	5	6
C. Other people might become injured	1	2	3	4	5	6
D. I might die	1	2	3	4	5	6
E. Other people might die	1	2	3	4	5	6

Q18. After receiving your first evacuation message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “disagree” and 6 represents “agree?” **(CIRCLE ONE FOR EACH)**

	<u>DISAGREE</u>				<u>AGREE</u>	
A. The message helped me decide what to do	1	2	3	4	5	6
B. It was easy to decide what to do	1	2	3	4	5	6
C. I was able to decide what to do quickly	1	2	3	4	5	6
D. I decided what to do with confidence	1	2	3	4	5	6

**THE NEXT SET OF QUESTION ASK ABOUT THE TIME PERIOD AFTER YOU RECEIVED YOUR FIRST EVACUATION MESSAGE BUT BEFORE YOU BEGAN YOUR EVACUATION OR DECIDED TO NOT EVACUATE.**

Q19. After receiving your first evacuation message, but before you either began your evacuation or decided not to evacuate, how many additional evacuation messages did you receive? **(FILL IN BLANK)**

\_\_\_\_\_ NUMBER OF ADDITIONAL MESSAGES

**IF YOU DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES, SKIP TO QUESTION 22**

Q20. Who were those additional messages from? **(CIRCLE ALL THAT APPLY)**

- 1 = LOCAL POLICE
- 2 = LOCAL FIRE DEPARTMENT
- 3 = GOVERNOR'S OFFICE OF EMERGENCY SERVICES
- 4 = CAL FIRE
- 5 = BUTTE COUNTY SHERIFF
- 6 = SUTTER COUNTY SHERIFF
- 7 = YUBA COUNTY SHERIFF
- 8 = YUBA CITY OFFICIALS
- 9 = CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)
- 10 = NATIONAL WEATHER SERVICE
- 11 = FAMILY MEMBER OR OTHER RELATIVE
- 12 = NEIGHBOR OR FRIEND
- 13 = EMPLOYER
- 14 = CO-WORKER
- 15 = TV, RADIO, OR INTERNET BROADCASTER
- 16 = OTHER **(SPECIFY: \_\_\_\_\_)**
- 17 = I DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES

Q 21. How were those additional evacuation messages communicated to you? **(CIRCLE ALL THAT APPLY)**

- 1 = LAND LINE TELEPHONE WITH A RECORDED MESSAGE
- 2 = LAND LINE TELEPHONE WITH A LIVE PERSON
- 3 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE
- 4 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON
- 5 = TEXT MESSAGE - ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE
- 6 = INTERNET - AN EMAIL
- 7 = INTERNET - SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK
- 8 = INTERNET - WEBSITE
- 9 = FACE-TO-FACE FROM AN AUTHORITY
- 10 = FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER
- 11 = AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER
- 12 = TELEVISION
- 13 = RADIO
- 14 = TONE ALERT NATIONAL WEATHER SERVICE RADIO
- 15 = OUTDOOR WARNING SIREN
- 16 = OTHER **(SPECIFY: \_\_\_\_\_)**
- 17 = I DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES

Q22. Between the time you received your first evacuation message and the time you began your evacuation or decided not to evacuate, did you use any of the following to communicate with others? **(CIRCLE ALL THAT APPLY)**

- 1 = FACE-TO-FACE CONVERSATIONS
- 2 = LAND LINE PHONE CALL
- 3 = CELL PHONE CALL
- 4 = CELL PHONE TEXT MESSAGE
- 5 = SOCIAL MEDIA SUCH AS FACEBOOK OR TWITTER
- 6 = OTHER **(SPECIFY \_\_\_\_\_)**
- 9 = I DID NOT COMMUNICATE WITH OTHERS

Q23. Between the time you received your first evacuation message and the time you began your evacuation or decided not to evacuate, did you seek additional information from any of the following sources? **(CIRCLE ALL THAT APPLY)**

- 1 = FRIENDS, RELATIVES, NEIGHBORS, CO-WORKERS
- 2 = LOCAL OFFICIALS SUCH AS FIRE, SHERIFF, OR POLICE
- 3 = STATE OFFICIALS SUCH AS THE DEPARTMENT OF WATER RESOURCES, CAL FIRE, OR OFFICE OF EMERGENCY SERVICES
- 4 = INTERNET - WEBSITE
- 5 = SOCIAL MEDIA, FOR EXAMPLE, FACEBOOK OR TWITTER
- 6 = OTHER **(SPECIFY \_\_\_\_\_)**
- 9 = I DID NOT SEEK ADDITIONAL INFORMATION

Q24. Between the time you received your first evacuation message and the time you began your evacuation or decided not to evacuate, did you do any of the following? **(CIRCLE ALL THAT APPLY)**

- 1 = REUNITE WITH FAMILY MEMBERS
- 2 = REUNITE OR ATTEND TO PETS
- 3 = SECURE MY HOME
- 4 = SECURE MY BUSINESS
- 5 = PACK ITEMS TO TAKE WITH ME
- 6 = TOLD OTHERS I WAS GOING/WHERE I WAS GOING
- 7 = HELPED OTHERS GET READY TO EVACUATE
- 8 = OTHER **(SPECIFY \_\_\_\_\_)**
- 9 = I DIDN'T DO ANYTHING BEFORE EVACUATING

**THE FOLLOWING QUESTIONS ASK ABOUT YOUR EVACUATION AND/OR YOUR DECISION TO NOT EVACUATE IF YOU DID NOT LEAVE.**

Q25. Did you evacuate?

- 1 = YES (IF YES, SKIP TO Q27)
- 2 = NO

***IF YOU EVACUATED, SKIP TO QUESTION 27***

Q26. If you did not evacuate, why didn't you leave? (CIRCLE ONE, THEN SKIP TO QUESTION 33)

- 1 = NOT IN AREA TOLD TO EVACUATE
- 2 = NOT IN A LOW LYING AREA OR AN AREA THAT WOULD FLOOD
- 3 = STAYED BEHIND TO PROTECT MY PROPERTY
- 4 = DID NOT THINK THERE WOULD BE A FLOOD
- 5 = I STAYED BEHIND TO DO MY JOB
- 6 = DID NOT HAVE THE RESOURCES, FOR EXAMPLE MONEY OR VEHICLE
- 7 = PHYSICALLY UNABLE TO EVACUATE
- 8 = OTHER (SPECIFY: \_\_\_\_\_)

***IF YOU DID NOT EVACUATE, SKIP TO QUESTION 33***

Q27. What day did you begin your evacuation (by begin your evacuation we mean leave your location to go to a safe area)? (CIRCLE ONE)

- 1 = PRIOR TO FRIDAY, FEBRUARY 10
- 2 = FRIDAY, FEBRUARY 10
- 3 = SATURDAY, FEBRUARY 11
- 4 = SUNDAY, FEBRUARY 12
- 5 = MONDAY, FEBRUARY 13
- 6 = AFTER MONDAY, FEBRUARY 13

Q28. On that day, what time did you begin your evacuation (by begin your evacuation we mean leave your location to go to a safe area)? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOUR \_\_\_\_\_ MINUTE \_\_\_\_\_ AM or PM \_\_\_\_\_

Q29. Where did you go when you evacuated? **(CIRCLE ONE)**

- 1 = PUBLIC SHELTER
- 2 = FRIEND OR RELATIVE
- 3 = HOTEL OR MOTEL
- 4 = WORKPLACE
- 5 = CHURCH
- 6 = CAMPGROUND/RV PARK
- 7 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q30. In what city and state was it located? **(FILL IN BELOW)**

\_\_\_\_\_

Q31. How long did it take you to get there? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOURS \_\_\_\_\_ MINUTES \_\_\_\_\_

Q32. How did you get there? **(CIRCLE ONE)**

- 1 = PERSONAL VEHICLE
- 2 = FRIEND'S OR RELATIVE'S VEHICLE
- 3 = BUS
- 4 = WALK/BICYCLE
- 5 = OTHER **(SPECIFY \_\_\_\_\_)**

**THE LAST SET OF QUESTIONS IS ABOUT YOUR PERSONAL ATTRIBUTES. ANSWERS TO THESE QUESTIONS WILL HELP US LEARN HOW DIFFERENT TYPES OF PEOPLE RECEIVE AND RESPOND TO FLOOD WARNINGS.**

Q33. Do you consider yourself male, female, or other? **(CIRCLE ONE)**

- 1 = MALE
- 2 = FEMALE
- 3 = OTHER **(SPECIFY \_\_\_\_\_)**

Q34. Which one of the following racial/ethnic groups best describes you? If you identify with more than one, choose the group you identify with the most. **(CIRCLE ONE)**

- 1 = WHITE
- 2 = HISPANIC OR LATINO
- 3 = BLACK OR AFRICAN AMERICAN
- 4 = ASIAN
- 5 = NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
- 6 = AMERICAN INDIAN OR ALASKAN NATIVE
- 7 = OTHER **(SPECIFY \_\_\_\_\_)**

Q35. What was your age on your last birthday? **(CIRCLE ONE)**

- 1 = 18-24 YEARS OLD
- 2 = 25-34 YEARS OLD
- 3 = 35-44 YEARS OLD
- 4 = 45-54 YEARS OLD
- 5 = 55-64 YEARS OLD
- 6 = 65-74 YEARS OLD
- 7 = 75 YEARS OR OLDER

Q36. What is the highest level of education you have completed? **(CIRCLE ONE)**

- 1 = LESS THAN HIGH SCHOOL DIPLOMA
- 2 = HIGH SCHOOL DIPLOMA OR EQUIVALENT
- 3 = SOME COLLEGE BUT NO DEGREE
- 4 = ASSOCIATE DEGREE
- 5 = BACHELOR DEGREE
- 6 = GRADUATE DEGREE



Q37. Thinking of all the people in your household, was the total household income from all sources in 2016? Please include your own income as well. **(CIRCLE ONE)**

- 1 = LESS THAN \$15,000
- 2 = \$15,000 TO \$24,999
- 3 = \$25,000 TO \$34,999
- 4 = \$35,000 TO \$49,999
- 5 = \$50,000 TO \$74,999
- 6 = \$75,000 TO \$99,999
- 7 = \$100,000 TO \$149,999
- 8 = \$150,000 TO \$199,999
- 9 = \$200,000 OR MORE

Q38. Which of the following categories best describes your employment status? **(CIRCLE ONE)**

- 1 = EMPLOYED [INCLUDING SELF-EMPLOYED], WORKING 1-39 HOURS PER WEEK
- 2 = EMPLOYED [INCLUDING SELF-EMPLOYED], WORKING 40 OR MORE HOURS PER WEEK
- 3 = NOT EMPLOYED, LOOKING FOR WORK
- 4 = NOT EMPLOYED, NOT LOOKING FOR WORK
- 5 = RETIRED
- 6 = DISABLED, NOT ABLE TO WORK
- 7 = STAY AT HOME MOM/DAD

Q39. How many people and pets including yourself lived in your household on February 12, 2017, the day the evacuation was ordered? **(INSERT NUMBERS IN BLANKS BELOW)**

\_\_\_\_\_ CHILDREN UNDER THE AGE OF 18

\_\_\_\_\_ ADULTS OVER THE AGE OF 18 AND UNDER THE AGE OF 65

\_\_\_\_\_ ADULTS AGE 65 AND OLDER

\_\_\_\_\_ PETS

**PLEASE USE THE SPACE BELOW TO TELL US ANYTHING ELSE YOU'D LIKE TO SAY ABOUT YOUR EXPERIENCE WITH THE OROVILLE DAM EVENT IN FEBRUARY 2017.**

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**PLEASE PROVIDE US YOUR NAME AND MAILING ADDRESS IN THE SPACE PROVIDED BELOW IF YOU WOULD LIKE US TO SEND YOU A \$15 GIFT CARD TO THANK YOU FOR PARTICIPATING IN THE SURVEY.**

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

Thank you for taking the time to complete the survey. The Survey Research Center at California State University, Fullerton can be reached by phone at (657) 278-3185.

***END***

**APPENDIX 8**  
**OROVILLE PUBLIC CODEBOOK**

# CODEBOOK

## PUBLIC RESPONSE TO THE OROVILLE DAM ALERTS AND WARNINGS DURING FEBRUARY 2017

### POPULATION TYPE

Variable Name: POP

Column Number(s): 1 (A)

### RESPONDENT NUMBER

Variable Name: IDNUM

Column Number(s): 2 (B)

### CONSTRUCT: PRE-EVACUATION INFORMATION: MEDIA

Variable Name: Q1

Column Number(s): 3 (C)

Q1. How many total hours would you estimate you spent watching, reading, or listening to media and internet reports about what was happening at the Oroville Dam before the official evacuation began? **(FILL IN BELOW)**

\_\_\_\_\_ NUMBER OF HOURS (Ratio Coding)

*Convert answers into ratio codes (e.g. 1½ hours = 1.5 hours)*

### CONSTRUCT: PRE-EVACUATION INFORMATION: PEOPLE

Variable Name: Q2

Column Number(s): 4 (D)

Q2. How many total hours would you estimate you spent talking with other people, such as friends, relatives, co-workers, and strangers, about what was happening at the Oroville Dam before the official evacuation began? **(FILL IN BELOW)**

\_\_\_\_\_ NUMBER OF HOURS (Ratio Coding)

*Convert answers into ratio codes (e.g. 1½ hours = 1.5 hours)*

### CONSTRUCT: COUNTY LOCATION: RESIDENCE

Variable Name: Q3

Column Number(s): 5 (E)

Q3. Which of the following counties best describes where you *lived* on February 12, 2017?

**(CIRCLE ONE)** (Nominal Coding)

1 = BUTTE COUNTY

2 = SUTTER COUNTY

3 = YUBA COUNTY

CONSTRUCT: CITY LOCATION: RESIDENCE

*Variable Name:* Q4, Q4SP for other specified response

*Column Number(s):* 6 (F), 7 (G) for other specified response

Q4. Which of the following cities, towns, or places best describes where you lived on February 12, 2017? **(CIRCLE ONE)** (Nominal Coding)

- 1 = OROVILLE
- 2 = SOUTH OROVILLE
- 3 = EAST OROVILLE
- 4 = PALERMO
- 5 = THERMALITO
- 6 = EAST BIGGS
- 7 = GRIDLEY CITY
- 8 = EAST GRIDLEY
- 9 = YUBA CITY
- 10 = LOMO
- 11 = LIVE OAK
- 12 = TIERRA BUENA
- 13 = NICHOLAS
- 14 = RIO OSO
- 15 = PLEASANT GROVE
- 16 = ROBBINS
- 17 = MARYSVILLE
- 18 = HALLWOOD
- 19 = LINDA
- 20 = OLIVEHURST
- 21 = PLUMAS LAKE
- 22 = WHEATLAND
- 23 = DISTRICT 10
- 24 = OTHER **(SPECIFY: \_\_\_\_\_)**

CONSTRUCT: COUNTY LOCATION: WORK

*Variable Name:* Q5, Q5SP for other specified response

*Column Number(s):* 8 (H), 9 (I) for other specified response

Q5. Which of the following counties best describes where you worked on February 12, 2017? **(CIRCLE ONE)** (Nominal Coding)

- 1 = BUTTE COUNTY
- 2 = SUTTER COUNTY
- 3 = YUBA COUNTY
- 4 = SACRAMENTO COUNTY
- 5 = YOLO COUNTY
- 6 = OTHER **(SPECIFY: \_\_\_\_\_)**
- 9 = I WASN'T EMPLOYED ON FEBRUARY 12, 2017

CONSTRUCT: CITY LOCATION: WORK

*Variable Name: Q6, Q6SP for other specified response*

*Column Number(s): 10 (J), 11 (K) for other specified response*

Q6. Which of the following cities, towns, or places best describes where you worked on February 12, 2017? **(CIRCLE ONE)** (Nominal Coding)

- 1 = OROVILLE
- 2 = SOUTH OROVILLE
- 3 = EAST OROVILLE
- 4 = PALERMO
- 5 = THERMALITO
- 6 = EAST BIGGS
- 7 = GRIDLEY CITY
- 8 = EAST GRIDLEY
- 9 = YUBA CITY
- 10 = LOMO
- 11 = LIVE OAK
- 12 = TIERRA BUENA
- 13 = NICHOLAS
- 14 = RIO OSO
- 15 = PLEASANT GROVE
- 16 = ROBBINS
- 17 = MARYSVILLE
- 18 = HALLWOOD
- 19 = LINDA
- 20 = OLIVEHURST
- 21 = PLUMAS LAKE
- 22 = WHEATLAND
- 23 = DISTRICT 10
- 24 = SACRAMENTO
- 25 = OTHER **(SPECIFY: \_\_\_\_\_)**
- 99 = I WASN'T EMPLOYED ON FEBRUARY 12, 2017

CONSTRUCT: FIRST EVACUATION MESSAGE: DATE

*Variable Name: Q7, Q7SP*

*Column Number(s): 12 (L), 13 (M) for other specified response*

Q7. Think about the first evacuation message you received aimed at people in the area in which you were located. What day did you get that message? **(CIRCLE ONE)**  
(Nominal Coding)

- 1 = SUNDAY, FEBRUARY 12
- 2 = MONDAY, FEBRUARY 13
- 9 = OTHER **(SPECIFY: \_\_\_\_\_)**

CONSTRUCT: FIRST EVACUATION MESSAGE: TIME

*Variable Name: Q8*

*Column Number(s): 14 (N)*

Q8. Think about the *first* evacuation message you received aimed at people in the area in which you were located. What time did you get that message?

**(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOUR \_\_\_\_\_ MINUTE \_\_\_\_\_ AM or PM \_\_\_\_\_ (Interval Coding)

*Convert answers into interval codes minutes after midnight on the day they received the message (e.g. 12:01 AM = 1; 5:45 PM = 1065)*

CONSTRUCT: FIRST EVACUATION MESSAGE: DIFFUSION BY CHANNEL

*Variable Name: Q9, Q9SP for other specified response*

*Column Number(s): 15 (O), 16 (P) for other specified response*

Q9. How was the first evacuation message you received communicated to you? **(CIRCLE ONE)**

(Nominal Coding)

- 1 = LAND LINE TELEPHONE WITH A RECORDED MESSAGE
- 2 = LAND LINE TELEPHONE WITH A LIVE PERSON
- 3 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE
- 4 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON
- 5 = TEXT MESSAGE – ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE
- 6 = INTERNET – AN EMAIL
- 7 = INTERNET – SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK
- 8 = INTERNET – WEBSITE
- 9 = FACE-TO-FACE FROM AN AUTHORITY
- 10 = FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER
- 11 = AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER
- 12 = TELEVISION
- 13 = RADIO
- 14 = TONE ALERT NATIONAL WEATHER SERVICE RADIO
- 15 = OUTDOOR WARNING SIREN
- 16 = OTHER **(SPECIFY: \_\_\_\_\_)**

CONSTRUCT: FIRST EVACUATION MESSAGE: DIFFUSION BY SOURCE

*Variable Name: Q10, Q10SP for other specified response*

*Column Number(s): 17 (Q), 18 (R) for other specified response*

Q10. Still thinking about the first message you received, who was that message from?

**(CIRCLE ONE)** (Nominal Coding)

- 1 = LOCAL POLICE

- 2 = LOCAL FIRE DEPARTMENT
- 3 = GOVERNOR'S OFFICE OF EMERGENCY SERVICES
- 4 = CAL FIRE
- 5 = BUTTE COUNTY SHERIFF
- 6 = SUTTER COUNTY SHERIFF
- 7 = YUBA COUNTY SHERIFF
- 8 = YUBA CITY OFFICIALS
- 9 = CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)
- 10 = NATIONAL WEATHER SERVICE
- 11 = FAMILY MEMBER OR OTHER RELATIVE
- 12 = NEIGHBOR OR FRIEND
- 13 = EMPLOYER
- 14 = CO-WORKER
- 15 = TV, RADIO, OR INTERNET BROADCASTER
- 16 = OTHER (**SPECIFY:** \_\_\_\_\_)

**CONSTRUCT: FIRST EVACUATION MESSAGE: ACTIVITY**

*Variable Name: Q11, Q11SP for other specified response*

*Column Number(s): 19 (S), 20 (T) for other specified response*

Q11. Where were you when you received your first evacuation message? (**CIRCLE ONE**)

(Nominal Coding)

- 1 = AT HOME
- 2 = AT WORK
- 3 = SHOPPING AT A STORE
- 4 = DRIVING A VEHICLE
- 5 = PASSENGER IN A VEHICLE
- 6 = PASSENGER IN A PUBLIC TRANSIT VEHICLE
- 7 = IN TRANSIT - NOT IN A VEHICLE
- 8 = ENGAGED IN AN OUTDOOR RECREATIONAL ACTIVITY
- 9 = ENGAGED IN AN INDOOR RECREATIONAL ACTIVITY
- 10 = AT A RELATIVE'S OR FRIEND'S PLACE
- 11 = OTHER (**SPECIFY** \_\_\_\_\_)

**CONSTRUCT: FIRST EVACUATION MESSAGE: LOCATION**

*Variable Name: Q12, Q12SP for other specified response*

*Column Number(s): 21 (U), 22 (V) for other specified response*

Q12. Which of the following places best describes where you were when you received your first evacuation message? (**CIRCLE ONE**) (Nominal Coding)

- 1 = OROVILLE
- 2 = SOUTH OROVILLE
- 3 = EAST OROVILLE
- 4 = PALERMO
- 5 = THERMALITO
- 6 = EAST BRIGGS
- 7 = GRIDLEY CITY
- 8 = EAST GRIDLEY



- 9 = YUBA CITY
- 10 = LOMO
- 11 = LIVE OAK
- 12 = TIERRA BUENA
- 13 = NICHOLAS
- 14 = RIO OSO
- 15 = PLEASANT GROVE
- 16 = ROBBINS
- 17 = MARYSVILLE
- 18 = HALLWOOD
- 19 = LINDA
- 20 = OLIVEHURST
- 21 = PLUMAS LAKE
- 22 = WHEATLAND
- 23 = DISTRICT 10
- 24 = OTHER (**SPECIFY:** \_\_\_\_\_)

**CONSTRUCT: FIRST EVACUATION MESSAGE: UNITED HOUSEHOLD**

*Variable Name: Q13*

*Column Number(s): 23 (W)*

Q13. Were you with members of your immediate family and pets when you received your first evacuation message? (**CIRCLE ONE**) (Ordinal Coding)

- 1 = NO
- 2 = YES, BUT ONLY SOME OF THEM
- 3 = YES, ALL OF THEM
- 9 = I HAVE NO IMMEDIATE FAMILY MEMBERS OR PETS

**CONSTRUCT: FIRST EVACUATION MESSAGE: BELIEVABILITY**

*Variable Name: Q14*

*Column Number(s): 24 (X)*

Q14. How believable was the first evacuation message you received on a scale of 1 to 6 where 1 represents “not at all believable” and 6 represents “completely believable?” (**CIRCLE ONE**) (Ordinal Coding)

<u>NOT AT ALL</u>						<u>COMPLETELY</u>
<u>BELIEVABLE</u>						<u>BELIEVABLE</u>
1	2	3	4	5		6

**CONSTRUCT: FIRST EVACUATION MESSAGE: UNDERSTAND**

Q15. After receiving your first evacuation message, how much would you say you understood each of the following things on a scale of 1 to 6 where 1 represents “did not understand at all” and 6 represents “fully understood?” **(CIRCLE ONE FOR EACH)** (Ordinal Coding)

	<u>DID NOT UNDERSTAND AT ALL</u>			<u>FULLY UNDERSTOOD</u>		
	1	2	3	4	5	6
A. What could happen at the dam? <i>Variable Name: Q15_A</i> <i>Column Number(s): 25 (Y)</i>	1	2	3	4	5	6
B. The risk of flooding? <i>Variable Name: Q15_B</i> <i>Column Number(s): 26 (Z)</i>	1	2	3	4	5	6
C. What to do to protect yourself? <i>Variable Name: Q15_C</i> <i>Column Number(s): 27 (AA)</i>	1	2	3	4	5	6
D. What locations could be affected? <i>Variable Name: Q15_D</i> <i>Column Number(s): 28 (AB)</i>	1	2	3	4	5	6
E. When you were supposed to evacuate? <i>Variable Name: Q15_E</i> <i>Column Number(s): 29 (AC)</i>	1	2	3	4	5	6
F. How long you were supposed to stay away? <i>Variable Name: Q15_F</i> <i>Column Number(s): 30 (AD)</i>	1	2	3	4	5	6
G. Who the message was from? <i>Variable Name: Q15_G</i> <i>Column Number(s): 31 (AE)</i>	1	2	3	4	5	6

**CONSTRUCT: FIRST EVACUATION MESSAGE: BELIEVE**

Q16. After receiving your first evacuation message, how much would you say you believed each of the following things on a scale of 1 to 6 where 1 represents “did not believe” and 6 represents “fully believed?” **(CIRCLE ONE FOR EACH)** (Ordinal Coding)

	<u>DID NOT BELIEVE</u>				<u>FULLY BELIEVED</u>	
A. The emergency spillway would break <i>Variable Name: Q16_A</i> <i>Column Number(s): 32 (AF)</i>	1	2	3	4	5	6
B. My home would be flooded <i>Variable Name: Q16_B</i> <i>Column Number(s): 33 (AG)</i>	1	2	3	4	5	6
C. My town would be flooded <i>Variable Name: Q16_C</i> <i>Column Number(s): 34 (AH)</i>	1	2	3	4	5	6

**CONSTRUCT: FIRST EVACUATION MESSAGE: RISK PERCEPTION**

Q17. After receiving your first evacuation message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “not likely” and 6 represents “extremely likely?” **(CIRCLE ONE FOR EACH)** (Ordinal Coding)

	<u>NOT LIKELY</u>				<u>EXTREMELY LIKELY</u>	
A. The message was meant for me <i>Variable Name: Q17_A</i> <i>Column Number(s): 35 (AI)</i>	1	2	3	4	5	6
B. I might become injured <i>Variable Name: Q17_B</i> <i>Column Number(s): 36 (AJ)</i>	1	2	3	4	5	6
C. Other people might become injured <i>Variable Name: Q17_C</i> <i>Column Number(s): 37 (AK)</i>	1	2	3	4	5	6
D. I might die <i>Variable Name: Q17_D</i> <i>Column Number(s): 38 (AL)</i>	1	2	3	4	5	6
E. Other people might die <i>Variable Name: Q17_E</i> <i>Column Number(s): 39 (AM)</i>	1	2	3	4	5	6

CONSTRUCT: FIRST EVACUATION MESSAGE: DECISION MAKING

Q18. After receiving your first evacuation message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “disagree” and 6 represents “agree?” **(CIRCLE ONE FOR EACH)** (Ordinal Coding)

	<u>DISAGREE</u>			<u>AGREE</u>		
A. The message helped me decide what to do	1	2	3	4	5	6
<i>Variable Name: Q18_A</i>						
<i>Column Number(s): 40 (AN)</i>						
B. It was easy to decide what to do	1	2	3	4	5	6
<i>Variable Name: Q18_B</i>						
<i>Column Number(s): 41 (AO)</i>						
C. I was able to decide what to do quickly	1	2	3	4	5	6
<i>Variable Name: Q18_C</i>						
<i>Column Number(s): 42 (AP)</i>						
D. I decided what to do with confidence	1	2	3	4	5	6
<i>Variable Name: Q18_D</i>						
<i>Column Number(s): 43 (AQ)</i>						

CONSTRUCT: ADDITIONAL PRE-EVACUATION MESSAGES: NUMBER

*Variable Name: Q19*

*Column Number(s): 44 (AR)*

Q19. After receiving your first evacuation message, but before you either began your evacuation or decided not to evacuate, how many additional evacuation messages did you receive? **(FILL IN BLANK)**

\_\_\_\_\_ NUMBER OF ADDITIONAL MESSAGES (Interval Coding)

CONSTRUCT: ADDITIONAL PRE-EVACUATION MESSAGES: SOURCE

Q20. Who were those additional messages from? **(CIRCLE ALL THAT APPLY)** (Nominal Coding)

1 = LOCAL POLICE

*Variable Name: Q20\_1*

*Column Number(s): 45 (AS)*

*Value Labels: 1 = Selected, 0 = Not Selected*

2 = LOCAL FIRE DEPARTMENT

*Variable Name: Q20\_2*

*Column Number(s): 46 (AT)*

*Value Labels: 1 = Selected, 0 = Not Selected*

3 = GOVERNOR’S OFFICE OF EMERGENCY SERVICES

*Variable Name: Q20\_3*

*Column Number(s): 47 (AU)*

- Value Labels: 1 = Selected, 0 = Not Selected*
- 4 = CAL FIRE  
*Variable Name: Q20\_4*  
*Column Number(s): 48 (AV)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 5 = BUTTE COUNTY SHERIFF  
*Variable Name: Q20\_5*  
*Column Number(s): 49 (AW)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 6 = SUTTER COUNTY SHERIFF  
*Variable Name: Q20\_6*  
*Column Number(s): 50 (AX)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 7 = YUBA COUNTY SHERIFF  
*Variable Name: Q20\_7*  
*Column Number(s): 51 (AY)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 8 = YUBA CITY OFFICIALS  
*Variable Name: Q20\_8*  
*Column Number(s): 52 (AZ)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 9 = CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)  
*Variable Name: Q20\_9*  
*Column Number(s): 53 (BA)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 10 = NATIONAL WEATHER SERVICE  
*Variable Name: Q20\_10*  
*Column Number(s): 54 (BB)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 11 = FAMILY MEMBER OR OTHER RELATIVE  
*Variable Name: Q20\_11*  
*Column Number(s): 55 (BC)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 12 = NEIGHBOR OR FRIEND  
*Variable Name: Q20\_12*  
*Column Number(s): 56 (BD)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 13 = EMPLOYER  
*Variable Name: Q20\_13*  
*Column Number(s): 57 (BE)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 14 = CO-WORKER  
*Variable Name: Q20\_14*  
*Column Number(s): 58 (BF)*  
*Value Labels: 1 = Selected, 0 = Not Selected*

- 15 = TV, RADIO, OR INTERNET BROADCASTER  
*Variable Name: Q20\_15*  
*Column Number(s): 59 (BG)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 16 = OTHER (**SPECIFY: \_\_\_\_\_**)  
*Variable Name: Q20\_16, Q20SP for other specified response*  
*Column Number(s): 60 (BH), 62 (BJ) for other specified response*  
*Value Labels for Q20\_16: 1 = Selected, 0 = Not Selected*
- 17 = I DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES  
*Variable Name: Q20\_17*  
*Column Number(s): 61 (BI)*  
*Value Labels: 1 = Selected, 0 = Not Selected*

**CONSTRUCT: ADDITIONAL PRE-EVACUATION MESSAGES: CHANNEL**

Q21. How were those additional evacuation messages communicated to you? (**CIRCLE ALL THAT APPLY**) (Nominal Coding)

- 1 = LAND LINE TELEPHONE WITH A RECORDED MESSAGE  
*Variable Name: Q21\_1*  
*Column Number(s): 63 (BK)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 2 = LAND LINE TELEPHONE WITH A LIVE PERSON  
*Variable Name: Q21\_2*  
*Column Number(s): 64 (BL)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 3 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE  
*Variable Name: Q21\_3*  
*Column Number(s): 65 (BM)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 4 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON  
*Variable Name: Q21\_4*  
*Column Number(s): 66 (BN)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 5 = TEXT MESSAGE – ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE  
*Variable Name: Q21\_5*  
*Column Number(s): 67 (BO)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 6 = INTERNET – AN EMAIL  
*Variable Name: Q21\_6*  
*Column Number(s): 68 (BP)*  
*Value Labels: 1 = Selected, 0 = Not Selected*

- 7 = INTERNET – SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK  
*Variable Name: Q21\_7*  
*Column Number(s): 69 (BQ)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 8 = INTERNET – WEBSITE  
*Variable Name: Q21\_8*  
*Column Number(s): 70 (BR)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 9 = FACE-TO-FACE FROM AN AUTHORITY  
*Variable Name: Q21\_9*  
*Column Number(s): 71 (BS)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 10 = FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER  
*Variable Name: Q21\_10*  
*Column Number(s): 72 (BT)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 11 = AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER  
*Variable Name: Q21\_11*  
*Column Number(s): 73 (BU)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 12 = TELEVISION  
*Variable Name: Q21\_12*  
*Column Number(s): 74 (BV)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 13 = RADIO  
*Variable Name: Q21\_13*  
*Column Number(s): 75 (BW)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 14 = TONE ALERT NATIONAL WEATHER SERVICE RADIO  
*Variable Name: Q21\_14*  
*Column Number(s): 76 (BX)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 15 = OUTDOOR WARNING SIREN  
*Variable Name: Q21\_15*  
*Column Number(s): 77 (BY)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 16 = OTHER (**SPECIFY: \_\_\_\_\_**)  
*Variable Name: Q21\_16, Q21SP for other specified response*  
*Column Number(s): 78 (BZ), 80 (CB)*  
*Value Labels for Q21\_16: 1 = Selected, 0 = Not Selected*
- 17 = I DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES  
*Variable Name: Q21\_17*  
*Column Number(s): 79 (CA)*  
*Value Labels: 1 = Selected, 0 = Not Selected*

CONSTRUCT: POST-FIRST WARNING/PRE-EVACUATION INFORMATION SEARCHING CHANNEL

Q22. Between the time you received your first evacuation message and the time you began your evacuation or decided not to evacuate, did you use any of the following to communicate with others? **(CIRCLE ALL THAT APPLY)** (Nominal Coding)

1 = FACE-TO-FACE CONVERSATIONS

*Variable Name: Q22\_1*

*Column Number(s): 81 (CC)*

*Value Labels: 1 = Selected, 0 = Not Selected*

2 = LAND LINE PHONE CALL

*Variable Name: Q22\_2*

*Column Number(s): 82 (CD)*

*Value Labels: 1 = Selected, 0 = Not Selected*

3 = CELL PHONE CALL

*Variable Name: Q22\_3*

*Column Number(s): 83 (CE)*

*Value Labels: 1 = Selected, 0 = Not Selected*

4 = CELL PHONE TEXT MESSAGE

*Variable Name: Q22\_4*

*Column Number(s): 84 (CF)*

*Value Labels: 1 = Selected, 0 = Not Selected*

5 = SOCIAL MEDIA SUCH AS FACEBOOK OR TWITTER

*Variable Name: Q22\_5*

*Column Number(s): 85 (CG)*

*Value Labels: 1 = Selected, 0 = Not Selected*

6 = OTHER (**SPECIFY \_\_\_\_\_**)

*Variable Name: Q22\_6, Q22SP for other specified response*

*Column Number(s): 86 (CH), 88 (CJ) for other specified response*

*Value Labels for Q22\_6: 1 = Selected, 0 = Not Selected*

9 = I DID NOT COMMUNICATE WITH OTHERS

*Variable Name: Q22\_9*

*Column Number(s): 87 (CI)*

*Value Labels: 1 = Selected, 0 = Not Selected*



CONSTRUCT: POST-FIRST WARNING/PRE-EVACUATION INFORMATION SEARCHING SOURCE

Q23. Between the time you received your first evacuation message and the time you began your evacuation or decided not to evacuate, did you seek additional information from any of the following sources? **(CIRCLE ALL THAT APPLY)**

(Nominal Coding)

1 = FRIENDS, RELATIVES, NEIGHBORS, CO-WORKERS

*Variable Name: Q23\_1*

*Column Number(s): 89 (CK)*

*Value Labels: 1 = Selected, 0 = Not Selected*

2 = LOCAL OFFICIALS SUCH AS FIRE, SHERIFF, OR POLICE

*Variable Name: Q23\_2*

*Column Number(s): 90 (CL)*

*Value Labels: 1 = Selected, 0 = Not Selected*

3 = STATE OFFICIALS SUCH AS THE DEPARTMENT OF WATER RESOURCES, CAL FIRE, OR OFFICE OF EMERGENCY SERVICES

*Variable Name: Q23\_3*

*Column Number(s): 91 (CM)*

*Value Labels: 1 = Selected, 0 = Not Selected*

4 = INTERNET – WEBSITE

*Variable Name: Q23\_4*

*Column Number(s): 92 (CN)*

*Value Labels: 1 = Selected, 0 = Not Selected*

5 = SOCIAL MEDIA, FOR EXAMPLE, FACEBOOK OR TWITTER

*Variable Name: Q23\_5*

*Column Number(s): 93 (CO)*

*Value Labels: 1 = Selected, 0 = Not Selected*

6 = OTHER **(SPECIFY \_\_\_\_\_)**

*Variable Name: Q23\_6, Q23SP for other specified response*

*Column Number(s): 94 (CP), 96 (CR) for other specified response*

*Value Labels For Q23\_6: 1 = Selected, 0 = Not Selected*

9 = I DID NOT SEEK ADDITIONAL INFORMATION

*Variable Name: Q23\_9*

*Column Number(s): 95 (CQ)*

*Value Labels: 1 = Selected, 0 = Not Selected*

CONSTRUCT: POST-FIRST WARNING/PRE-EVACUATION ACTIONS

Q24. Between the time you received your first evacuation message and the time you began your evacuation or decided not to evacuate, did you do any of the following?

**(CIRCLE ALL THAT APPLY)** (Nominal Coding)

1 = REUNITE WITH FAMILY MEMBERS

*Variable Name: Q24\_1*

*Column Number(s): 97 (CS)*

*Value Labels: 1 = Selected, 0 = Not Selected*

- 2 = REUNITE OR ATTEND TO PETS  
*Variable Name: Q24\_2*  
*Column Number(s): 98 (CT)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 3 = SECURE MY HOME  
*Variable Name: Q24\_3*  
*Column Number(s): 99 (CU)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 4 = SECURE MY BUSINESS  
*Variable Name: Q24\_4*  
*Column Number(s): 100 (CV)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 5 = PACK ITEMS TO TAKE WITH ME  
*Variable Name: Q24\_5*  
*Column Number(s): 101 (CW)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 6 = TOLD OTHERS I WAS GOING/WHERE I WAS GOING  
*Variable Name: Q24\_6*  
*Column Number(s): 102 (CX)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 7 = HELPED OTHERS GET READY TO EVACUATE  
*Variable Name: Q24\_7*  
*Column Number(s): 103 (CY)*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 8 = OTHER (**SPECIFY \_\_\_\_\_**)  
*Variable Name: Q24\_8, Q24SP for other specified response*  
*Column Number(s): 104 (CZ), 106 (DB) for other specified response*  
*Value Labels: 1 = Selected, 0 = Not Selected*
- 9 = I DIDN'T DO ANYTHING BEFORE EVACUATING  
*Variable Name: Q24\_9*  
*Column Number(s): 105 (DA)*  
*Value Labels: 1 = Selected, 0 = Not Selected*

**CONSTRUCT: EVACUATION ACTION**

*Variable Name: Q25*

*Column Number(s): 107 (DC)*

Q25. Did you evacuate? (Nominal Coding)

1 = YES (**IF YES, SKIP TO Q27**)

2 = NO

CONSTRUCT: NON-EVACUATION: REASON

*Variable Name: Q26, Q26SP for other specified response*

*Column Number(s) 108 (DD), 109 (DE) for other specified response*

Q26. If you did not evacuate, why didn't you leave? **(CIRCLE ONE, THEN SKIP TO QUESTION 33)** (Nominal Coding)

- 1 = NOT IN AREA TOLD TO EVACUATE
- 2 = NOT IN A LOW LYING AREA OR AN AREA THAT WOULD FLOOD
- 3 = STAYED BEHIND TO PROTECT MY PROPERTY
- 4 = DID NOT THINK THERE WOULD BE A FLOOD
- 5 = I STAYED BEHIND TO DO MY JOB
- 6 = DID NOT HAVE THE RESOURCES, FOR EXAMPLE MONEY OR VEHICLE
- 7 = PHYSICALLY UNABLE TO EVACUATE
- 8 = OTHER **(SPECIFY: \_\_\_\_\_)**

CONSTRUCT: EVACUATION: PAI DATE

*Variable Name: Q27*

*Column Number(s): 110 (DF)*

Q27. What day did you begin your evacuation (by begin your evacuation we mean leave your location to go to a safe area)? **(CIRCLE ONE)** (Nominal Coding)

- 1 = PRIOR TO FRIDAY, FEBRUARY 10
- 2 = FRIDAY, FEBRUARY 10
- 3 = SATURDAY, FEBRUARY 11
- 4 = SUNDAY, FEBRUARY 12
- 5 = MONDAY, FEBRUARY 13
- 6 = AFTER MONDAY, FEBRUARY 13

CONSTRUCT: EVACUATION: PAI TIME

*Variable Name: Q28*

*Column Number(s): 111 (DG)*

Q28. On that day, what time did you begin your evacuation (by begin your evacuation we mean leave your location to go to a safe area)? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOUR \_\_\_\_\_ MINUTE \_\_\_\_\_ AM or PM \_\_\_\_\_ (Interval Coding)

*Convert answers into interval codes minutes after midnight on the day they began their evacuation (e.g. 12:01 AM = 1; 5:45 PM = 1065)*

CONSTRUCT: EVACUATION DESTINATION TYPE

Variable Name: Q29, Q29SP for other specified response

Column Number(s): 112 (DH), 113 (DI) for other specified response

Q29. Where did you go when you evacuated? **(CIRCLE ONE)** (Nominal Coding)

- 1 = PUBLIC SHELTER
- 2 = FRIEND OR RELATIVE
- 3 = HOTEL OR MOTEL
- 4 = WORKPLACE
- 5 = CHURCH
- 6 = CAMPGROUND/RV PARK
- 7 = OTHER **(SPECIFY: \_\_\_\_\_)**

CONSTRUCT: EVACUATION DESTINATION CITY

Variable Name: Q30, Q30SP for open-ended city and state

Column Number(s): 114 (DJ), 115 (DK) for open-ended city and state

Q30. In what city and state was it located? **(FILL IN BELOW)** (Nominal Coding)

- 1 = Answered this question
  - 2 = Did not answer this question
- 

CONSTRUCT: EVACUATION TIME

Variable Name: Q31

Column Number(s): 116 (DL)

Q31. How long did it take you to get there? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOURS \_\_\_\_\_ MINUTES \_\_\_\_\_ (Ratio Coding)

Convert answers into ratio codes (e.g. 1hour, 20 minutes = 1.33 hours)

CONSTRUCT: EVACUATION MODE OF TRANSPORTATION

Variable Name: Q32, Q32SP for other specified response

Column Number(s): 117 (DM), 118 (DN) for other specified response

Q32. How did you get there? **(CIRCLE ONE)** (Nominal Coding)

- 1 = PERSONAL VEHICLE
- 2 = FRIEND'S OR RELATIVE'S VEHICLE
- 3 = BUS
- 4 = WALK/BICYCLE
- 5 = OTHER **(SPECIFY \_\_\_\_\_)**

CONSTRUCT: STATUS: SEX

*Variable Name: Q33Gender, Q33GenderSP for other specified response*

*Column Number(s): 119 (DO), 120 (DP) for other specified response*

Q33. Do you consider yourself male, female, or other? **(CIRCLE ONE)** (Nominal Coding)

1 = MALE

2 = FEMALE

3 = OTHER **(SPECIFY \_\_\_\_\_)**

CONSTRUCT: STATUS: ETHNICITY

*Variable Name: Q34Race, Q34RaceSP for other specified response*

*Column Number(s): 121 (DQ), 122 (DR) for other specified response*

Q34. Which one of the following racial/ethnic groups best describes you? If you identify with more than one, choose the group you identify with the most. **(CIRCLE ONE)**

(Nominal Coding)

1 = WHITE

2 = HISPANIC OR LATINO

3 = BLACK OR AFRICAN AMERICAN

4 = ASIAN

5 = NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER

6 = AMERICAN INDIAN OR ALASKAN NATIVE

7 = OTHER **(SPECIFY \_\_\_\_\_)**

CONSTRUCT: STATUS: AGE

*Variable Name: Q35Age*

*Column Number(s): 123 (DS)*

Q35. What was your age on your last birthday? **(CIRCLE ONE)** (Ordinal Coding)

1 = 18-24 YEARS OLD

2 = 25-34 YEARS OLD

3 = 35-44 YEARS OLD

4 = 45-54 YEARS OLD

5 = 55-64 YEARS OLD

6 = 65-74 YEARS OLD

7 = 75 YEARS OR OLDER

CONSTRUCT: STATUS: EDUCATION

*Variable Name: Q36Education*

*Column Number(s): 124 (DT)*

Q36. What is the highest level of education you have completed? **(CIRCLE ONE)** (Ordinal Coding)

- 1 = LESS THAN HIGH SCHOOL DIPLOMA
- 2 = HIGH SCHOOL DIPLOMA OR EQUIVALENT
- 3 = SOME COLLEGE BUT NO DEGREE
- 4 = ASSOCIATE DEGREE
- 5 = BACHELOR DEGREE
- 6 = GRADUATE DEGREE

CONSTRUCT: STATUS: INCOME

*Variable Name: Q37Income*

*Column Number(s): 125 (DU)*

Q37. Thinking of all the people in your household, was the total household income from all sources in 2016? Please include your own income as well. **(CIRCLE ONE)** (Ordinal Coding)

- 1 = LESS THAN \$15,000
- 2 = \$15,000 TO \$24,999
- 3 = \$25,000 TO \$34,999
- 4 = \$35,000 TO \$49,999
- 5 = \$50,000 TO \$74,999
- 6 = \$75,000 TO \$99,999
- 7 = \$100,000 TO \$149,999
- 8 = \$150,000 TO \$199,999
- 9 = \$200,000 OR MORE

CONSTRUCT: STATUS: OCCUPATION

*Variable Name: Q38EmpStatus*

*Column Number(s): 126 (DV)*

Q38. Which of the following categories best describes your employment status? **(CIRCLE ONE)** (Nominal Coding)

- 1 = EMPLOYED (INCLUDING SELF-EMPLOYED), WORKING 1-39 HOURS PER WEEK
- 2 = EMPLOYED (INCLUDING SELF-EMPLOYED), WORKING 40 OR MORE HOURS PER WEEK
- 3 = NOT EMPLOYED, LOOKING FOR WORK
- 4 = NOT EMPLOYED, NOT LOOKING FOR WORK
- 5 = RETIRED
- 6 = DISABLED, NOT ABLE TO WORK
- 7 = STAY AT HOME MOM/DAD

CONSTRUCT: ROLE: ROLES OF RESPONSIBILITY

Q39. How many people and pets including yourself lived in your household on February 12, 2017, the day the evacuation was ordered? **(INSERT NUMBERS IN BLANKS BELOW)** (Interval Coding)

\_\_\_\_\_ CHILDREN UNDER THE AGE OF 18

*Variable Name: Q39\_1*

*Column Number(s): 127 (DW)*

\_\_\_\_\_ ADULTS OVER THE AGE OF 18 AND UNDER THE AGE OF 65

*Variable Name: Q39\_2*

*Column Number(s): 128 (DX)*

\_\_\_\_\_ ADULTS AGE 65 AND OLDER

*Variable Name: Q39\_3*

*Column Number(s): 129 (DY)*

\_\_\_\_\_ PETS

*Variable Name: Q39\_4*

*Column Number(s): 130 (DZ)*

COMMENTS

*Variable Name: Q40Comments*

*Column Number(s): 131 (EA)*

**PLEASE USE THE SPACE BELOW TO TELL US ANYTHING ELSE YOU'D LIKE TO SAY ABOUT YOUR EXPERIENCE WITH THE OROVILLE DAM EVENT IN FEBRUARY 2017.**

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**RECODED VARIABLES**

**CONSTRUCT: FIRST EVACUATION MESSAGE: DIFFUSION BY CHANNEL (RECODE)**

*Variable Name: TechType*

*Column Number(s): 132 (EB)*

Q9. How was the first evacuation message you received communicated to you? **(CIRCLE ONE)**

(Nominal Coding)

- 1 = TRADITIONAL CHANNEL
- 2 = MODERN CHANNEL
- 3 = INFORMAL CHANNEL

**Definitions:**

- 1) TRADITIONAL = FACE TO FACE FROM AN AUTHORITY, TELEVISION, RADIO, TONE ALERT NWS RADIO, OR OUTDOOR WARNING SIREN
- 2) MODERN = LAND LINE TELEPHONE WITH RECORDED MESSAGE, CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE, INTERNET – AN EMAIL, INTERNET – SOCIAL MEDIA, INTERNET – WEBSITE, OR TEXT MESSAGE FROM AN OFFICIAL SOURCE
- 3) INFORMAL = LANDLINE TELEPHONE WITH A LIVE PERSON, CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON, FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE A FRIEND OR FAMILY MEMBER, OR TEXT MESSAGE FROM AN INFORMAL SOURCE

**CONSTRUCT: FIRST EVACUATION MESSAGE: ACTIVITY (RECODE)**

*Variable Name: Q11\_Col*

*Column Number(s): 133 (EC)*

Q11. Where were you when you received your first evacuation message?

(Nominal Coding)

- 1 = AT HOME
- 2 = NOT AT HOME (ALL OTHER CATEGORIES)

**CONSTRUCT: EVACUATION: PAI DATE (RECODE)**

*Variable Name: Q27\_Col*

*Column Number(s): 132 (ED)*

Q27. What day did you begin your evacuation (by begin your evacuation we mean leave your location to go to a safe area)? **(CIRCLE ONE)** (Nominal Coding)

- 1 = PRIOR TO SUNDAY, FEBRUARY 12
- 2 = SUNDAY, FEBRUARY 12
- 3 = AFTER SUNDAY, FEBRUARY 12



**APPENDIX 9**  
**OROVILLE FORMATTED PUBLIC QUESTIONNAIRE**

# QUESTIONNAIRE

## PUBLIC RESPONSE TO THE OROVILLE DAM ALERTS AND WARNINGS DURING FEBRUARY 2017



*(Please read our letter to you inside the front cover)*



US Army Corps  
of Engineers.



US Army Corps of Engineers

## LETTER OF EXPLANATION

*(Please read)*

### **About Our Study**

The Social Science Research Center (SSRC) at California State University Fullerton is working with the U.S. Army Corps of Engineers and disaster researchers to collect information from people in Butte, Sutter, and Yuba counties about their experiences and responses to the public alerts and warnings issued during the February 2017 Oroville Dam event. The information we collect will help the nation better prepare for future dam and levee emergencies.

### **It's Important that You Participate**

You have been selected as part of a small sample of people asked to complete and return this questionnaire. Your participation will enable us to generalize our findings to all of the people who were asked to evacuate on February 12, 2017. Please fill out the questionnaire and return it to us in the self-addressed postage paid envelope which is attached. It should take about 20 minutes or less to complete.

### **Your Answers will be Kept Confidential**

All of the information that you provide will be kept confidential to the extent permitted by law. To assure participant confidentiality, the question answers we receive from respondents like you will be grouped, and never associated with the individuals who answered the questions.

### **Who Should Complete This Questionnaire?**

This questionnaire should only be completed if we have sent it to a home or residence of people who lived in Butte, Sutter, or Yuba counties on February 12, 2017. If not, the questionnaire should be discarded. Additionally, a person who is 18 years of age or older who is also a head of your household should complete this questionnaire. If that's not you, please give it to the person you consider to be a head of your household.

Please complete and return this questionnaire as soon as possible. A \$15 gift card will be sent to the first 800 people who complete and return this questionnaire. At the end of the questionnaire you will be asked to provide your mailing address for delivery of the gift card. Your questionnaire responses will be kept separate from this information, which will be destroyed once the card has been delivered to you.



### **Other Considerations**

We do not expect that there will be any risks to you for participating in this study beyond those experienced in daily life. However, you may choose to answer this questionnaire or not.

If you choose not to, this will not affect you negatively in any way. You may also choose not to answer any question in the survey or choose to stop doing the survey even if you have started it. Neither the SSRC, its director Laura Gil-Trejo, nor the researchers associated with this study will lose or gain money based on the results of the study.

If you want to know more about this study, please call our director Laura Gil-Trejo at (657) 278-7691 or email her at [lgil-trejo@fullerton.edu](mailto:lgil-trejo@fullerton.edu). If you have questions about your rights as a research participant, you may contact the California State University, Fullerton Regulatory Compliance Coordinator at (657) 278-7640 or send your questions by email to [irb@fullerton.edu](mailto:irb@fullerton.edu).

**THANK YOU**

INSTRUCTIONS FOR FILLING OUT THE SURVEY	
1. You may use pencil or pen to fill in the circles.	
2. Circles should be darkened completely and properly.	
INCORRECT:	
CORRECT:	

**THE FIRST QUESTIONS ASK ABOUT THINGS IN THE TIME PERIOD BETWEEN WHEN THE OROVILLE DAM EVENT FIRST BEGAN ON FEBRUARY 7, 2017 UNTIL JUST BEFORE THE EVACUATION MESSAGES WERE ISSUED ON FEBRUARY 12, 2017.**

Q1. How many total hours would you estimate you spent watching, reading, or listening to media and internet reports about what was happening at the Oroville Dam before the official evacuation began? **(INSERT A NUMBER BELOW)**

--	--

NUMBER OF HOURS

Q2. How many total hours would you estimate you spent talking with other people, such as friends, relatives, co-workers, and strangers, about what was happening at the Oroville Dam before the official evacuation began? **(INSERT A NUMBER BELOW)**

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NUMBER OF HOURS

**THE NEXT QUESTIONS ARE ABOUT WHERE YOU LIVED AND WORKED ON FEBRUARY 12, 2017, THE DAY THE EVACUATION BEGAN.**

Q3. Which of the following counties best describes where you *lived* on February 12, 2017? **(PLEASE FILL IN A BUBBLE BELOW)**

- BUTTE COUNTY
- SUTTER COUNTY
- YUBA COUNTY

Q4. Which of the following cities, towns, or places best describes where you lived on February 12, 2017? **(PLEASE FILL IN A BUBBLE BELOW)**

- |                                      |                                                     |
|--------------------------------------|-----------------------------------------------------|
| <input type="radio"/> OROVILLE       | <input type="radio"/> SOUTH OROVILLE                |
| <input type="radio"/> EAST OROVILLE  | <input type="radio"/> PALERMO                       |
| <input type="radio"/> THERMALITO     | <input type="radio"/> EAST BRIGGS                   |
| <input type="radio"/> GRIDLEY CITY   | <input type="radio"/> EAST GRIDLEY                  |
| <input type="radio"/> YUBA CITY      | <input type="radio"/> LOMO                          |
| <input type="radio"/> LIVE OAK       | <input type="radio"/> TIERRA BUENA                  |
| <input type="radio"/> NICHOLAS       | <input type="radio"/> RIO OSO                       |
| <input type="radio"/> PLEASANT GROVE | <input type="radio"/> ROBBINS                       |
| <input type="radio"/> MARYSVILLE     | <input type="radio"/> HALLWOOD                      |
| <input type="radio"/> LINDA          | <input type="radio"/> OLIVEHURST                    |
| <input type="radio"/> PLUMAS LAKE    | <input type="radio"/> WHEATLAND                     |
| <input type="radio"/> DISTRICT 10    | <input type="radio"/> OTHER <b>(SPECIFY: _____)</b> |

Q5. Which of the following counties best describes where you worked on February 12, 2017? **(PLEASE FILL IN A BUBBLE BELOW)**

- BUTTE COUNTY
- SUTTER COUNTY
- YUBA COUNTY
- SACRAMENTO COUNTY
- YOLO COUNTY
- OTHER **(SPECIFY: \_\_\_\_\_)**
- I WASN'T EMPLOYED ON FEBRUARY 12, 2017

Q6. Which of the following cities, towns, or places best describes where you *worked* on February 12, 2017? **(PLEASE FILL IN A BUBBLE BELOW)**

- |                                              |                                                                 |
|----------------------------------------------|-----------------------------------------------------------------|
| <input type="radio"/> OROVILLE               | <input type="radio"/> SOUTH OROVILLE                            |
| <input type="radio"/> EAST OROVILLE          | <input type="radio"/> PALERMO                                   |
| <input type="radio"/> THERMALITO             | <input type="radio"/> EAST BRIGGS                               |
| <input type="radio"/> GRIDLEY CITY           | <input type="radio"/> EAST GRIDLEY                              |
| <input type="radio"/> YUBA CITY              | <input type="radio"/> LOMO                                      |
| <input type="radio"/> LIVE OAK               | <input type="radio"/> TIERRA BUENA                              |
| <input type="radio"/> NICHOLAS               | <input type="radio"/> RIO OSO                                   |
| <input type="radio"/> PLEASANT GROVE         | <input type="radio"/> ROBBINS                                   |
| <input type="radio"/> MARYSVILLE             | <input type="radio"/> HALLWOOD                                  |
| <input type="radio"/> LINDA                  | <input type="radio"/> OLIVEHURST                                |
| <input type="radio"/> PLUMAS LAKE            | <input type="radio"/> WHEATLAND                                 |
| <input type="radio"/> DISTRICT 10            | <input type="radio"/> SACRAMENTO                                |
| <input type="radio"/> OTHER (SPECIFY: _____) | <input type="radio"/> I WASN'T EMPLOYED ON<br>FEBRUARY 12, 2017 |

**THE NEXT QUESTIONS ARE ABOUT THE "FIRST EVACUATION MESSAGE" YOU RECEIVED ON OR AFTER FEBRUARY 12, 2017. BY MESSAGE WE MEAN INFORMATION FROM GOVERNMENT, MEDIA, OR PERSONAL CONTACTS SUCH AS FRIENDS, RELATIVES, OR CO-WORKERS.**

***IF YOU DID NOT RECEIVE AN EVACUATION MESSAGE, SKIP TO QUESTION 25***

Q7. Think about the *first* evacuation message you received aimed at people in the area in which you were located. What day did you get that message?

**(PLEASE FILL IN A BUBBLE BELOW)**

- SUNDAY, FEBRUARY 12
- MONDAY, FEBRUARY 13
- OTHER (SPECIFY: \_\_\_\_\_)

Q8. Think about the *first* evacuation message you received aimed at people in the area in which you were located. What time did you get that message?

**(INSERT A NUMBER BELOW WITH THE BEST ESTIMATE YOU CAN MAKE) (PLEASE FILL IN A BUBBLE FOR AM OR PM)**

<input type="text"/>	<input type="text"/>	HOUR	<input type="text"/>	<input type="text"/>	MINUTE	<input type="radio"/>	AM
						<input type="radio"/>	PM

Q9. How was the first evacuation message you received communicated to you?  
**(PLEASE FILL IN A BUBBLE BELOW)**

- LAND LINE TELEPHONE WITH A RECORDED MESSAGE
- LAND LINE TELEPHONE WITH A LIVE PERSON
- CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE
- CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON
- TEXT MESSAGE – ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE
- INTERNET – AN EMAIL
- INTERNET – SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK
- INTERNET – WEBSITE
- FACE-TO-FACE FROM AN AUTHORITY
- FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER
- AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER
- TELEVISION
- RADIO
- TONE ALERT NATIONAL WEATHER SERVICE RADIO
- OUTDOOR WARNING SIREN
- OTHER (**SPECIFY:** \_\_\_\_\_)



Q10. Still thinking about the first message you received, who was that message from?  
**(PLEASE FILL IN A BUBBLE BELOW)**

- LOCAL POLICE
- LOCAL FIRE DEPARTMENT
- GOVERNOR'S OFFICE OF EMERGENCY SERVICES
- CAL FIRE
- BUTTE COUNTY SHERIFF
- SUTTER COUNTY SHERIFF
- YUBA COUNTY SHERIFF
- YUBA CITY OFFICIALS
- CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)
- NATIONAL WEATHER SERVICE
- FAMILY MEMBER OR OTHER RELATIVE
- NEIGHBOR OR FRIEND
- EMPLOYER
- CO-WORKER
- TV, RADIO, OR INTERNET BROADCASTER
- OTHER (**SPECIFY:** \_\_\_\_\_)

Q11. Where were you when you received your first evacuation message?  
**(PLEASE FILL IN A BUBBLE BELOW)**

- AT HOME
- AT WORK
- SHOPPING AT A STORE
- DRIVING A VEHICLE
- PASSENGER IN A VEHICLE
- PASSENGER IN A PUBLIC TRANSIT VEHICLE
- IN TRANSIT - NOT IN A VEHICLE
- ENGAGED IN AN OUTDOOR RECREATIONAL ACTIVITY
- ENGAGED IN AN INDOOR RECREATIONAL ACTIVITY
- AT A RELATIVE'S OR FRIEND'S PLACE
- OTHER (**SPECIFY** \_\_\_\_\_)

Q12. Which of the following places best describes where you were when you received your first evacuation message? **(PLEASE FILL IN A BUBBLE BELOW)**

- |                                      |                                                     |
|--------------------------------------|-----------------------------------------------------|
| <input type="radio"/> OROVILLE       | <input type="radio"/> SOUTH OROVILLE                |
| <input type="radio"/> EAST OROVILLE  | <input type="radio"/> PALERMO                       |
| <input type="radio"/> THERMALITO     | <input type="radio"/> EAST BRIGGS                   |
| <input type="radio"/> GRIDLEY CITY   | <input type="radio"/> EAST GRIDLEY                  |
| <input type="radio"/> YUBA CITY      | <input type="radio"/> LOMO                          |
| <input type="radio"/> LIVE OAK       | <input type="radio"/> TIERRA BUENA                  |
| <input type="radio"/> NICHOLAS       | <input type="radio"/> RIO OSO                       |
| <input type="radio"/> PLEASANT GROVE | <input type="radio"/> ROBBINS                       |
| <input type="radio"/> MARYSVILLE     | <input type="radio"/> HALLWOOD                      |
| <input type="radio"/> LINDA          | <input type="radio"/> OLIVEHURST                    |
| <input type="radio"/> PLUMAS LAKE    | <input type="radio"/> WHEATLAND                     |
| <input type="radio"/> DISTRICT 10    | <input type="radio"/> OTHER <b>(SPECIFY: _____)</b> |

Q13. Were you with members of your immediate family and /or pets when you received your first evacuation message? **(PLEASE FILL IN A BUBBLE BELOW)**

- NO
- YES, BUT ONLY SOME OF MY IMMEDIATE FAMILY AND PETS
- YES, ALL OF MY IMMEDIATE FAMILY AND SOME OF MY PETS
- YES, SOME OF MY IMMEDIATE FAMILY AND ALL OF MY PETS
- YES, ALL OF MY IMMEDIATE FAMILY AND PETS
- I HAVE NO IMMEDIATE FAMILY MEMBERS OR PETS

**THE FOLLOWING QUESTIONS ASK ABOUT WHAT YOU MAY HAVE THOUGHT WHEN YOU RECEIVED YOUR FIRST EVACUATION MESSAGE.**

Q14. How believable was the first evacuation message you received on a scale of 1 to 6 where 1 represents “not at all believable” and 6 represents “completely believable?” **(CIRCLE ONE)**

<u>NOT AT ALL</u>						<u>COMPLETELY</u>
<u>BELIEVABLE</u>						<u>BELIEVABLE</u>
1	2	3	4	5		6

Q15. After receiving your first evacuation message, how much would you say you understood each of the following things on a scale of 1 to 6 where 1 represents “did not understand at all” and 6 represents “fully understood?” **(CIRCLE ONE FOR EACH)**

	<u>DID NOT</u>				<u>FULLY</u>	
	<u>UNDERSTAND</u>				<u>UNDERSTOOD</u>	
	<u>AT ALL</u>					
A. What could happen at the dam?	1	2	3	4	5	6
B. The risk of flooding?	1	2	3	4	5	6
C. What to do to protect yourself?	1	2	3	4	5	6
D. What locations could be affected?	1	2	3	4	5	6
E. When you were supposed to evacuate?	1	2	3	4	5	6
F. How long you were supposed to stay away?	1	2	3	4	5	6
G. Who the message was from?	1	2	3	4	5	6

Q16. After receiving your first evacuation message, how much would you say you believed each of the following things on a scale of 1 to 6 where 1 represents “did not believe” and 6 represents “fully believed?” **(CIRCLE ONE FOR EACH)**

	<u>DID NOT</u>				<u>FULLY</u>	
	<u>BELIEVE</u>				<u>BELIEVED</u>	
A. The emergency spillway would break	1	2	3	4	5	6
B. My home would be flooded	1	2	3	4	5	6
C. My town would be flooded	1	2	3	4	5	6

Q17. After receiving your first evacuation message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “not likely” and 6 represents “extremely likely?” **(CIRCLE ONE FOR EACH)**

	<u>NOT LIKELY</u>				<u>EXTREMELY LIKELY</u>		
A. The message was meant for me	1	2	3	4	5	6	
B. I might become injured	1	2	3	4	5	6	
C. Other people might become injured	1	2	3	4	5	6	
D. I might die	1	2	3	4	5	6	
E. Other people might die	1	2	3	4	5	6	

Q18. After receiving your first evacuation message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “disagree” and 6 represents “agree?” **(CIRCLE ONE FOR EACH)**

	<u>DISAGREE</u>				<u>AGREE</u>		
A. The message helped me decide what to do	1	2	3	4	5	6	
B. It was easy to decide what to do	1	2	3	4	5	6	
C. I was able to decide what to do quickly	1	2	3	4	5	6	
D. I decided what to do with confidence	1	2	3	4	5	6	

**THE NEXT SET OF QUESTION ASK ABOUT THE TIME PERIOD AFTER YOU RECEIVED YOUR FIRST EVACUATION MESSAGE BUT BEFORE YOU BEGAN YOUR EVACUATION OR DECIDED TO NOT EVACUATE.**

Q19. After receiving your first evacuation message, but before you either began your evacuation or decided not to evacuate, how many additional evacuation messages did you receive? **(INSERT A NUMBER BELOW)**

--	--

NUMBER OF ADDITIONAL MESSAGES

***IF YOU DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES, SKIP TO QUESTION 22***

Q20. Who were those additional messages from?

**(PLEASE FILL IN ALL BUBBLES THAT APPLY)**

- LOCAL POLICE
- LOCAL FIRE DEPARTMENT
- GOVERNOR'S OFFICE OF EMERGENCY SERVICES
- CAL FIRE
- BUTTE COUNTY SHERIFF
- SUTTER COUNTY SHERIFF
- YUBA COUNTY SHERIFF
- YUBA CITY OFFICIALS
- CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)
- NATIONAL WEATHER SERVICE
- FAMILY MEMBER OR OTHER RELATIVE
- NEIGHBOR OR FRIEND
- EMPLOYER
- CO-WORKER
- TV, RADIO, OR INTERNET BROADCASTER
- OTHER (**SPECIFY:** \_\_\_\_\_)
- I DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES

Q21. How were those additional evacuation messages communicated to you?  
**(PLEASE FILL IN ALL BUBBLES THAT APPLY)**

- LAND LINE TELEPHONE WITH A RECORDED MESSAGE
- LAND LINE TELEPHONE WITH A LIVE PERSON
- CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE
- CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON
- TEXT MESSAGE – ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE
- INTERNET – AN EMAIL
- INTERNET – SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK
- INTERNET – WEBSITE
- FACE-TO-FACE FROM AN AUTHORITY
- FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER
- AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER
- TELEVISION
- RADIO
- TONE ALERT NATIONAL WEATHER SERVICE RADIO
- OUTDOOR WARNING SIREN
- OTHER (**SPECIFY:** \_\_\_\_\_ )
- I DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES

Q22. Between the time you received your first evacuation message and the time you began your evacuation or decided not to evacuate, did you use any of the following to communicate with others? **(PLEASE FILL IN ALL BUBBLES THAT APPLY)**

- FACE-TO-FACE CONVERSATIONS
- LAND LINE PHONE CALL
- CELL PHONE CALL
- CELL PHONE TEXT MESSAGE
- SOCIAL MEDIA SUCH AS FACEBOOK OR TWITTER
- OTHER **(SPECIFY \_\_\_\_\_)**
- I DID NOT COMMUNICATE WITH OTHERS

Q23. Between the time you received your first evacuation message and the time you began your evacuation or decided not to evacuate, did you seek additional information from any of the following sources?

**(PLEASE FILL IN ALL BUBBLES THAT APPLY)**

- FRIENDS, RELATIVES, NEIGHBORS, CO-WORKERS
- LOCAL OFFICIALS SUCH AS FIRE, SHERIFF, OR POLICE
- STATE OFFICIALS SUCH AS THE DEPARTMENT OF WATER RESOURCES, CAL FIRE, OR OFFICE OF EMERGENCY SERVICES
- INTERNET - WEBSITE
- SOCIAL MEDIA, FOR EXAMPLE, FACEBOOK OR TWITTER
- OTHER **(SPECIFY \_\_\_\_\_)**
- I DID NOT SEEK ADDITIONAL INFORMATION

Q24. Between the time you received your first evacuation message and the time you began your evacuation or decided not to evacuate, did you do any of the following? **(PLEASE FILL IN ALL BUBBLES THAT APPLY)**

- REUNITE WITH FAMILY MEMBERS
- REUNITE OR ATTEND TO PETS
- SECURE MY HOME
- SECURE MY BUSINESS
- PACK ITEMS TO TAKE WITH ME
- TOLD OTHERS I WAS GOING/WHERE I WAS GOING
- HELPED OTHERS GET READY TO EVACUATE
- OTHER **(SPECIFY \_\_\_\_\_)**
- I DIDN'T DO ANYTHING BEFORE EVACUATING

**THE FOLLOWING QUESTIONS ASK ABOUT YOUR EVACUATION AND/OR YOUR DECISION TO NOT EVACUATE IF YOU DID NOT LEAVE.**

Q25. Did you evacuate? **(PLEASE FILL IN A BUBBLE BELOW)**

- YES **(IF YES, SKIP TO Q27)**
- NO

***IF YOU EVACUATED, SKIP TO QUESTION 2***

Q26. If you did not evacuate, why didn't you leave?

**(PLEASE FILL IN A BUBBLE BELOW, THEN SKIP TO QUESTION 33)**

- NOT IN AREA TOLD TO EVACUATE
- NOT IN A LOW LYING AREA OR AN AREA THAT WOULD FLOOD
- STAYED BEHIND TO PROTECT MY PROPERTY
- DID NOT THINK THERE WOULD BE A FLOOD
- I STAYED BEHIND TO DO MY JOB
- DID NOT HAVE THE RESOURCES, FOR EXAMPLE MONEY OR VEHICLE
- PHYSICALLY UNABLE TO EVACUATE
- OTHER **(SPECIFY: \_\_\_\_\_)**



***IF YOU DID NOT EVACUATE, SKIP TO QUESTION 33***

Q27. What day did you begin your evacuation (by begin your evacuation we mean leave your location to go to a safe area)? **(PLEASE FILL IN A BUBBLE BELOW)**

- PRIOR TO FRIDAY, FEBRUARY 10
- FRIDAY, FEBRUARY 10
- SATURDAY, FEBRUARY 11
- SUNDAY, FEBRUARY 12
- MONDAY, FEBRUARY 13
- AFTER MONDAY, FEBRUARY 13

Q28. On that day, what time did you begin your evacuation (by begin your evacuation we mean leave your location to go to a safe area)?

**(INSERT A NUMBER BELOW WITH THE BEST ESTIMATE YOU CAN MAKE) (PLEASE FILL IN A BUBBLE FOR AM OR PM)**

<table border="1" style="display: inline-table; width: 30px; height: 30px;"><tr><td style="width: 15px; height: 15px;"></td><td style="width: 15px; height: 15px;"></td></tr></table>			HOUR	<table border="1" style="display: inline-table; width: 30px; height: 30px;"><tr><td style="width: 15px; height: 15px;"></td><td style="width: 15px; height: 15px;"></td></tr></table>			MINUTE	<input type="radio"/> AM
				<input type="radio"/> PM				

Q29. Where did you go when you evacuated? **(PLEASE FILL IN A BUBBLE BELOW)**

- PUBLIC SHELTER
- FRIEND OR RELATIVE
- HOTEL OR MOTEL
- WORKPLACE
- CHURCH
- CAMPGROUND/RV PARK
- OTHER **(SPECIFY: \_\_\_\_\_)**

Q30. In what city and state was it located? **(PLEASE FILL IN NAME OF CITY BELOW)**

\_\_\_\_\_

Q31. How long did it take you to get there? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

<input type="text"/>	<input type="text"/>	HOURS	<input type="text"/>	<input type="text"/>	MINUTES
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Q32. How did you get there? **(PLEASE FILL IN A BUBBLE BELOW)**

- PERSONAL VEHICLE
- FRIEND'S OR RELATIVE'S VEHICLE
- BUS
- WALK/BICYCLE
- OTHER **(SPECIFY \_\_\_\_\_)**

**THE LAST SET OF QUESTIONS IS ABOUT YOUR PERSONAL ATTRIBUTES. ANSWERS TO THESE QUESTIONS WILL HELP US LEARN HOW DIFFERENT TYPES OF PEOPLE RECEIVE AND RESPOND TO FLOOD WARNINGS.**

Q33. Do you consider yourself male, female, or other? **(PLEASE FILL IN A BUBBLE BELOW)**

- MALE
- FEMALE
- OTHER **(SPECIFY \_\_\_\_\_)**

Q34. Which one of the following racial/ethnic groups best describes you? If you identify with more than one, choose the group you identify with the most.

**(PLEASE FILL IN A BUBBLE BELOW)**

- WHITE
- HISPANIC OR LATINO
- BLACK OR AFRICAN AMERICAN
- ASIAN
- NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
- AMERICAN INDIAN OR ALASKAN NATIVE
- OTHER (**SPECIFY** \_\_\_\_\_)

Q35. What was your age on your last birthday? **(PLEASE FILL IN A BUBBLE BELOW)**

- 18-24 YEARS OLD
- 25-34 YEARS OLD
- 35-44 YEARS OLD
- 45-54 YEARS OLD
- 55-64 YEARS OLD
- 65-74 YEARS OLD
- 75 YEARS OR OLDER

Q36. What is the highest level of education you have completed?

**(PLEASE FILL IN A BUBBLE BELOW)**

- LESS THAN HIGH SCHOOL DIPLOMA
- HIGH SCHOOL DIPLOMA OR EQUIVALENT
- SOME COLLEGE BUT NO DEGREE
- ASSOCIATE DEGREE
- BACHELOR DEGREE
- GRADUATE DEGREE

Q37. Thinking of all the people in your household, was the total household income from all sources in 2016? Please include your own income as well. **(PLEASE FILL IN A BUBBLE BELOW)**

- LESS THAN \$15,000
- \$15,000 TO \$24,999
- \$25,000 TO \$34,999
- \$35,000 TO \$49,999
- \$50,000 TO \$74,999
- \$75,000 TO \$99,999
- \$100,000 TO \$149,999
- \$150,000 TO \$199,999
- \$200,000 OR MORE

Q38. Which of the following categories best describes your employment status? **(PLEASE FILL IN A BUBBLE BELOW)**

- EMPLOYED [INCLUDING SELF-EMPLOYED], WORKING 1-39 HOURS PER WEEK
- EMPLOYED [INCLUDING SELF-EMPLOYED], WORKING 40 OR MORE HOURS PER WEEK
- NOT EMPLOYED, LOOKING FOR WORK
- NOT EMPLOYED, NOT LOOKING FOR WORK
- RETIRED
- DISABLED, NOT ABLE TO WORK
- STAY AT HOME MOM/DAD

Q39. How many people and pets including yourself lived in your household on February 12, 2017, the day the evacuation was ordered?

**(INSERT NUMBERS IN THE BOXES BELOW)**

--	--

CHILDREN UNDER THE AGE OF 18

--	--

ADULTS OVER THE AGE OF 18  
AND UNDER THE AGE OF 65

--	--

ADULTS AGE 65 AND OLDER

--	--

PETS

**PLEASE USE THE SPACE BELOW TO TELL US ANYTHING ELSE YOU'D LIKE TO SAY ABOUT YOUR EXPERIENCE WITH THE OROVILLE DAM EVENT IN FEBRUARY 2017.**

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**PLEASE PROVIDE US YOUR NAME AND MAILING ADDRESS IN THE SPACE PROVIDED BELOW IF YOU WOULD LIKE US TO SEND YOU A \$15 GIFT CARD TO THANK YOU FOR PARTICIPATING IN THE SURVEY.**

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

Thank you for taking the time to complete the survey. The Social Science Research Center at California State University, Fullerton can be reached by phone at (657) 278-3185.

***END***

**APPENDIX 10**  
**GENERIC PUBLIC QUESTIONNAIRE**

# QUESTIONNAIRE

**PUBLIC RESPONSE TO (INSERT NAME OF EVENT)  
ALERTS AND WARNINGS ON (INSERT DATE OF EVENT)**

INSERT APPROPRIATE EVENT PHOTO HERE

*(Please read our letter to you inside the front cover)*



**US Army Corps  
of Engineers.**



## LETTER OF EXPLANATION

*(Please read)*

### **About Our Study**

***(Revise the following paragraph as appropriate for your study)***

The Survey Research Center at California State University Fullerton is working with the U.S. Army Corps of Engineers and social scientists to collect information from people in Butte, Sutter, and Yuba counties about their experiences and responses to the public alerts and warnings issued during the February 2017 Oroville Dam event. The information we collect will help the nation better prepare for future dam and levee emergencies.

### **It's Important that You Participate**

***(Revise the following paragraph as appropriate for your study)***

You have been selected as part of a small sample of people asked to complete and return this questionnaire. Your participation will enable us to generalize our findings to all of the people who were asked to evacuate on February 12, 2017. Please fill out the questionnaire and return it to us in the self-addressed postage paid envelope which is attached. It should take about 20 minutes or less to complete.

### **Your Answers will be Kept Anonymous**

All of the information that you provide will be kept anonymous. The question answers we receive from respondents like you will be grouped, and never associated with the individuals who answered the questions.

### **Who Should Complete This Questionnaire?**

***(Revise the following paragraphs as appropriate for your study)***

This questionnaire should only be completed if we have sent it to a home or residence of people who lived in Butte, Sutter, or Yuba counties on February 12, 2017. If not, the questionnaire should be discarded. Additionally, a person who is 18 years of age or older who is also a head of your household should complete this questionnaire. If that's not you, please give it to the person you consider to be a head of your household.

Please complete and return this questionnaire as soon as possible. A \$15 gift card will be sent to the first 800 people who complete and return this questionnaire. At the end of the questionnaire you will be asked to provide your mailing address for delivery of the gift card. Your questionnaire responses will be kept separate from this information, which will be destroyed once the card has been sent to you.

### **Other Considerations**

We do not expect that there will be any risks to you for participating in this study beyond those experienced in daily life. However, you may choose to answer this questionnaire or not. If you choose not to, this will not affect you negatively in any way. You may also choose not to answer any question in the survey or choose to stop doing the survey even if you have started it. Neither the SSRC, its director Laura Gil-Trejo, nor the researchers associated with this study will lose or gain money based on the results of the study.

If you want to know more about this study, please call our director Laura Gil-Trejo at (657) 278-7691 or email her at [lgil-trejo@fullerton.edu](mailto:lgil-trejo@fullerton.edu). If you have questions about your rights as a research participant, you may contact the California State University, Fullerton Regulatory Compliance Coordinator at (657) 278-7640 or send your questions by email to [irb@fullerton.edu](mailto:irb@fullerton.edu).

**THANK YOU**

**THE FIRST QUESTIONS ASK ABOUT THINGS IN THE TIME PERIOD BETWEEN WHEN (INSERT NAME OF EVENT) FIRST BEGAN UNTIL JUST BEFORE THE (INSERT RECOMMENDED PROTECTIVE ACTION) MESSAGES WERE ISSUED.**

Q1. How much time would you estimate you spent watching, reading, or listening to media and internet reports about what was happening regarding (Insert Name of Event) before the official (Insert Recommended Protective Action) began? **(FILL IN BELOW)**

\_\_\_\_\_ NUMBER OF HOURS

Q2. How many total hours would you estimate you spent talking with other people, such as friends, relatives, co-workers, and strangers, about what was happening regarding (Insert Name of Event) before the official (Insert Recommended Protective Action) began? **(FILL IN BELOW)**

\_\_\_\_\_ NUMBER OF HOURS

**THE NEXT QUESTIONS ARE ABOUT WHERE YOU LIVED AND WORKED ON (INSERT DATE OF FIRST ALERT/WARNING), THE DAY THE (INSERT RECOMMENDED PROTECTIVE ACTION) BEGAN.**

Q3. Which of the following counties best describes where you lived on (Insert Date of First Alert/Warning)? **(CIRCLE ONE)**

- 1 = (INSERT FIRST RELEVANT COUNTY)
- 2 = (INSERT NEXT RELEVANT COUNTY (IF APPLICABLE))
- N = (INSERT LAST RELEVANT COUNTY)

Q4. Which of the following cities, towns, or places best describes where you lived on (Insert Date of First Alert/Warning)? **(CIRCLE ONE)**

- 1 = (INSERT FIRST RELEVANT CITY)
- 2 = (INSERT NEXT RELEVANT CITY (IF APPLICABLE))
- N = (INSERT LAST RELEVANT CITY)
- N + 1 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q5. Which of the following counties best describes where you worked on (Insert Date of First Alert/Warning)? **(CIRCLE ONE)**

- 1 = (INSERT FIRST RELEVANT COUNTY)
- 2 = (INSERT NEXT RELEVANT COUNTY (IF APPLICABLE))
- N = (INSERT LAST RELEVANT COUNTY)
- N + 1 = OTHER **(SPECIFY: \_\_\_\_\_)**
- 9 = I WASN'T EMPLOYED ON (INSERT DATE OF FIRST ALERT/WARNING)

Q6. Which of the following cities, towns, or places best describes where you worked on (Insert Date of First Alert/Warning)? **(CIRCLE ONE)**

- 1 = (INSERT FIRST RELEVANT CITY)
- 2 = (INSERT NEXT RELEVANT CITY (IF APPLICABLE))
- N = (INSERT LAST RELEVANT CITY)
- N + 1 = OTHER **(SPECIFY: \_\_\_\_\_)**
- 99 = I WASN'T EMPLOYED ON (INSERT DATE OF FIRST ALERT/WARNING)

**THE NEXT QUESTIONS ARE ABOUT THE "FIRST (INSERT RECOMMENDED PROTECTIVE ACTION) MESSAGE" YOU RECEIVED ON OR AFTER (INSERT DATE OF FIRST ALERT/WARNING). BY MESSAGE WE MEAN INFORMATION FROM GOVERNMENT, MEDIA, OR PERSONAL CONTACTS SUCH AS FRIENDS, RELATIVES, OR CO-WORKERS.**

***IF YOU DID NOT RECEIVE A (INSERT RECOMMENDED PROTECTIVE ACTION) MESSAGE, SKIP TO QUESTION 25***

Q7. Think about the first (Insert Recommended Protective Action) message you received aimed at people in the area in which you were located. What day did you get that message? **(CIRCLE ONE)**

- 1 = (INSERT FIRST RELEVANT DATE)
- 2 = (INSERT NEXT RELEVANT DATE (IF APPLICABLE))
- N = (INSERT LAST RELEVANT DATE (IF APPLICABLE))
- 9 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q8. Think about the *first (Insert Recommended Protective Action)* message you received aimed at people in the area in which you were located. What time did you get that message? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOUR \_\_\_\_\_ MINUTE \_\_\_\_\_ AM or PM \_\_\_\_\_

Q9. How was the first (*Insert Recommended Protective Action*) message you received communicated to you? **(CIRCLE ONE)**

- 1 = LAND LINE TELEPHONE WITH A RECORDED MESSAGE
- 2 = LAND LINE TELEPHONE WITH A LIVE PERSON
- 3 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE
- 4 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON
- 5 = TEXT MESSAGE - ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE
- 6 = INTERNET - AN EMAIL
- 7 = INTERNET - SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK
- 8 = INTERNET - WEBSITE
- 9 = FACE-TO-FACE FROM AN AUTHORITY
- 10 = FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER
- 11 = AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER
- 12 = TELEVISION
- 13 = RADIO
- 14 = TONE ALERT NATIONAL WEATHER SERVICE RADIO
- 15 = OUTDOOR WARNING SIREN
- 16 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q10. Still thinking about the first message you received, who was that message from? **(CIRCLE ONE)** (*Customize the following list as appropriate*)

- 1 = LOCAL POLICE
- 2 = LOCAL FIRE DEPARTMENT
- 3 = LOCAL OFFICE OF EMERGENCY SERVICES
- 4 = CITY OFFICIAL
- 5 = COUNTY SHERIFF
- 6 = COUNTY OFFICIAL
- 7 = STATE OFFICIAL
- 8 = NATIONAL WEATHER SERVICE
- 9 = FAMILY MEMBER OR OTHER RELATIVE
- 10 = NEIGHBOR OR FRIEND
- 11 = EMPLOYER
- 12 = CO-WORKER
- 13 = TV, RADIO, OR INTERNET BROADCASTER
- 14 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q11. Where were you when you received your first (*Insert Recommended Protective Action*) message? **(CIRCLE ONE)**

- 1 = AT HOME
- 2 = AT WORK
- 3 = SHOPPING AT A STORE
- 4 = DRIVING A VEHICLE
- 5 = PASSENGER IN A VEHICLE
- 6 = PASSENGER IN A PUBLIC TRANSIT VEHICLE
- 7 = IN TRANSIT - NOT IN A VEHICLE
- 8 = ENGAGED IN AN OUTDOOR RECREATIONAL ACTIVITY
- 9 = ENGAGED IN AN INDOOR RECREATIONAL ACTIVITY
- 10 = AT A RELATIVE'S OR FRIEND'S PLACE
- 11 = OTHER **(SPECIFY \_\_\_\_\_)**

Q12. Which of the following places best describes where you were when you received your first (*Insert Recommended Protective Action*) message? **(CIRCLE ONE)**

- 1 = (*INSERT FIRST RELEVANT CITY*)
- 2 = (*INSERT NEXT RELEVANT CITY (IF APPLICABLE)*)
- N = (*INSERT LAST RELEVANT CITY*)
- N + 1 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q13. Were you with members of your immediate family and pets when you received your first (*Insert Recommended Protective Action*) message? **(CIRCLE ONE)**

- 1 = NO
- 2 = YES, BUT ONLY SOME OF THEM
- 3 = YES, ALL OF THEM
- 9 = I HAVE NO IMMEDIATE FAMILY MEMBERS OR PETS

**THE FOLLOWING QUESTIONS ASK ABOUT WHAT YOU MAY HAVE THOUGHT WHEN YOU RECEIVED YOUR FIRST (*Insert Recommended Protective Action*) MESSAGE.**

Q14. How believable was the first (*Insert Recommended Protective Action*) message you received on a scale of 1 to 6 where 1 represents “not at all believable” and 6 represents “completely believable?” **(CIRCLE ONE)**

<u>NOT AT ALL</u>						<u>COMPLETELY</u>
<u>BELIEVABLE</u>						<u>BELIEVABLE</u>
1	2	3	4	5		6

Q15. After receiving your first (*Insert Recommended Protective Action*) message, how much would you say you understood each of the following things on a scale of 1 to 6 where 1 represents “did not understand at all” and 6 represents “fully understood?” **(CIRCLE ONE FOR EACH)**

	<u>DID NOT</u>					<u>FULLY</u>
	<u>UNDERSTAND</u>					<u>UNDERSTOOD</u>
	<u>AT ALL</u>					
A. What could happen as a result of ( <i>Insert Name of Event</i> )?	1	2	3	4	5	6
B. The risk of flooding?	1	2	3	4	5	6
C. What to do to protect yourself?	1	2	3	4	5	6
D. What locations could be affected?	1	2	3	4	5	6
E. When you were supposed to ( <i>Insert Recommended Protective Action</i> )?	1	2	3	4	5	6
F. How long you were supposed to ( <i>Insert Recommended Protective Action</i> )?	1	2	3	4	5	6
G. Who the message was from?	1	2	3	4	5	6

Q16. After receiving your first (*Insert Recommended Protective Action*) message, how much would you say you believed each of the following things on a scale of 1 to 6 where 1 represents “did not believe” and 6 represents “fully believed?” **(CIRCLE ONE FOR EACH)**

	<u>DID NOT BELIEVE</u>				<u>FULLY BELIEVED</u>	
A. The ( <i>Insert Name of Event</i> ) would occur	1	2	3	4	5	6
B. My home would be flooded	1	2	3	4	5	6
C. My town would be flooded	1	2	3	4	5	6

Q17. After receiving your first (*Insert Recommended Protective Action*) message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “not likely” and 6 represents “extremely likely?” **(CIRCLE ONE FOR EACH)**

	<u>NOT LIKELY</u>				<u>EXTREMELY LIKELY</u>	
A. The message was meant for me	1	2	3	4	5	6
B. I might become injured	1	2	3	4	5	6
C. Other people might become injured	1	2	3	4	5	6
D. I might die	1	2	3	4	5	6
E. Other people might die	1	2	3	4	5	6

Q18. After receiving your first (*Insert Recommended Protective Action*) message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “disagree” and 6 represents “agree?” **(CIRCLE ONE FOR EACH)**

	<u>DISAGREE</u>				<u>AGREE</u>	
A. The message helped me decide what to do	1	2	3	4	5	6
B. It was easy to decide what to do	1	2	3	4	5	6
C. I was able to decide what to do quickly	1	2	3	4	5	6
D. I decided what to do with confidence	1	2	3	4	5	6



**THE NEXT SET OF QUESTION ASK ABOUT THE TIME PERIOD *AFTER* YOU RECEIVED YOUR FIRST (*INSERT RECOMMENDED PROTECTIVE ACTION*) MESSAGE BUT *BEFORE* YOU BEGAN YOUR (*INSERT RECOMMENDED PROTECTIVE ACTION*) OR DECIDED TO NOT (*INSERT RECOMMENDED PROTECTIVE ACTION*).**

Q19. After receiving your first (*Insert Recommended Protective Action*) message, but before you either began your (*Insert Recommended Protective Action*) or decided not to (*Insert Recommended Protective Action*), how many additional (*Insert Recommended Protective Action*) messages did you receive? **(FILL IN BLANK)**

\_\_\_\_\_ NUMBER OF ADDITIONAL MESSAGES

Q20. Who were those additional messages from? **(CIRCLE ALL THAT APPLY)** (*Customize the following list as appropriate*)

- 1 = LOCAL POLICE
- 2 = LOCAL FIRE DEPARTMENT
- 3 = LOCAL OFFICE OF EMERGENCY SERVICES
- 4 = CITY OFFICIAL
- 5 = COUNTY SHERIFF
- 6 = COUNTY OFFICIAL
- 7 = STATE OFFICIAL
- 8 = NATIONAL WEATHER SERVICE
- 9 = FAMILY MEMBER OR OTHER RELATIVE
- 10 = NEIGHBOR OR FRIEND
- 11 = EMPLOYER
- 12 = CO-WORKER
- 13 = TV, RADIO, OR INTERNET BROADCASTER
- 14 = OTHER **(SPECIFY: \_\_\_\_\_)**
- 15 = I DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES

Q21. How were those additional (*Insert Recommended Protective Action*) messages communicated to you? **(CIRCLE ALL THAT APPLY)**

- 1 = LAND LINE TELEPHONE WITH A RECORDED MESSAGE
- 2 = LAND LINE TELEPHONE WITH A LIVE PERSON
- 3 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE
- 4 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON
- 5 = TEXT MESSAGE - ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE
- 6 = INTERNET - AN EMAIL
- 7 = INTERNET - SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK
- 8 = INTERNET - WEBSITE
- 9 = FACE-TO-FACE FROM AN AUTHORITY
- 10 = FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER
- 11 = AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER
- 12 = TELEVISION
- 13 = RADIO
- 14 = TONE ALERT NATIONAL WEATHER SERVICE RADIO
- 15 = OUTDOOR WARNING SIREN
- 16 = OTHER (**SPECIFY:** \_\_\_\_\_)
- 17 = I DID NOT RECEIVED ADDITIONAL EVACUATION MESSAGES

Q22. Between the time you received your first (*Insert Recommended Protective Action*) message and the time you began your (*Insert Recommended Protective Action*) or decided not to (*Insert Recommended Protective Action*), did you use any of the following to communicate with others? **(CIRCLE ALL THAT APPLY)**

- 1 = FACE-TO-FACE CONVERSATIONS
- 2 = LAND LINE PHONE CALL
- 3 = CELL PHONE CALL
- 4 = CELL PHONE TEXT MESSAGE
- 5 = SOCIAL MEDIA SUCH AS FACEBOOK OR TWITTER
- 6 = OTHER (**SPECIFY** \_\_\_\_\_)
- 9 = I DID NOT COMMUNICATE WITH OTHERS

Q23. Between the time you received your first (*Insert Recommended Protective Action*) message and the time you began your (*Insert Recommended Protective Action*) or decided not to (*Insert Recommended Protective Action*), did you seek additional information from any of the following sources? **(CIRCLE ALL THAT APPLY)**

- 1 = FRIENDS, RELATIVES, NEIGHBORS, CO-WORKERS
- 2 = LOCAL OFFICIALS SUCH AS FIRE, SHERIFF, OR POLICE
- 3 = STATE OFFICIALS SUCH AS (*INSERT APPROPRIATE LIST*)
- 4 = INTERNET - WEBSITE
- 5 = SOCIAL MEDIA, FOR EXAMPLE, FACEBOOK OR TWITTER
- 6 = OTHER **(SPECIFY \_\_\_\_\_)**
- 9 = I DID NOT SEEK ADDITIONAL INFORMATION

Q24. Between the time you received your first (*Insert Recommended Protective Action*) message and the time you began your (*Insert Recommended Protective Action*) or decided not to (*Insert Recommended Protective Action*), did you do any of the following? **(CIRCLE ALL THAT APPLY)**

- 1 = REUNITE WITH FAMILY MEMBERS
- 2 = REUNITE OR ATTEND TO PETS
- 3 = SECURE MY HOME
- 4 = SECURE MY BUSINESS
- 5 = PACK ITEMS TO TAKE WITH ME
- 6 = TOLD OTHERS I WAS (*INSERT RECOMMENDED PROTECTIVE ACTION*)
- 7 = HELPED OTHERS GET READY TO (*INSERT RECOMMENDED PROTECTIVE ACTION*)
- 8 = OTHER **(SPECIFY \_\_\_\_\_)**
- 9 = I DIDN'T DO ANYTHING BEFORE (*INSERT RECOMMENDED PROTECTIVE ACTION*)

THE FOLLOWING QUESTIONS ASK ABOUT YOUR DECISION TO (INSERT RECOMMENDED PROTECTIVE ACTION) AND/OR YOUR DECISION TO NOT (INSERT RECOMMENDED PROTECTIVE ACTION).

Q25. Did you (Insert Recommended Protective Action)?

1 = YES (IF YES, SKIP TO Q27)

2 = NO

**IF YOU (INSERT RECOMMENDED PROTECTIVE ACTION), SKIP TO QUESTION 27**

Q26. If you did not (Insert Recommended Protective Action), why didn't you (Insert Appropriate Protective Action)? (CIRCLE ONE, THEN SKIP TO QUESTION 33)

1 = NOT IN AREA TOLD TO (INSERT RECOMMENDED PROTECTIVE ACTION)

2 = NOT IN A LOW LYING AREA OR AN AREA THAT WOULD FLOOD

3 = WANTED TO PROTECT MY PROPERTY

4 = DID NOT THINK THERE WOULD BE A FLOOD

5 = NEEDED TO DO MY JOB

6 = DID NOT HAVE THE RESOURCES, FOR EXAMPLE MONEY OR VEHICLE  
(REPLACE WITH APPROPRIATE EXAMPLES FOR RECOMMENDED PROTECTIVE ACTION)

7 = PHYSICALLY UNABLE TO (INSERT RECOMMENDED PROTECTIVE ACTION)

8 = CHOSE TO EVACUATE RATHER THAN SHELTER IN PLACE (ONLY INCLUDE IF THE RECOMMENDED PROTECTIVE ACTION IS TO SHELTER IN PLACE)

9 = OTHER (SPECIFY: \_\_\_\_\_)

**IF YOU DID NOT (INSERT RECOMMENDED PROTECTIVE ACTION), SKIP TO QUESTION 33**

Q27. What day did you begin to (*Insert Recommended Protective Action*) (by begin to (*Insert Recommended Protective Action*) we mean leave your immediate location to go to a safer area)? **(CIRCLE ONE)**

- 1 = PRIOR TO (*INSERT FIRST RELEVANT DATE*)
- 2 = (*INSERT FIRST RELEVANT DATE*)
- 3 = (*INSERT NEXT RELEVANT DATE (IF APPLICABLE)*)
- N = (*INSERT LAST RELEVANT DATE (IF APPLICABLE)*)
- N + 1 = AFTER (*INSERT LAST RELEVANT DATE (IF APPLICABLE)*)

Q28. On that day, what time did you begin to (*Insert Recommended Protective Action*) (by begin to (*Insert Recommended Protective Action*) we mean leave your immediate location to go to a safer area)? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOUR \_\_\_\_\_ MINUTE \_\_\_\_\_ AM or PM \_\_\_\_\_

Q29. Where did you go when you (*Insert Recommended Protective Action*)? **(CIRCLE ONE)**  
(*Insert appropriate list for recommended protective action*)

POSSIBLE LIST FOR EVACUATION

- 1 = PUBLIC SHELTER
- 2 = FRIEND OR RELATIVE
- 3 = HOTEL OR MOTEL
- 4 = WORKPLACE
- 5 = CHURCH
- 6 = CAMPGROUND/RV PARK
- 7 = OTHER **(SPECIFY: \_\_\_\_\_)**

POSSIBLE LIST FOR SHELTER IN PLACE

- 1 = STAYED IN LOCATION
- 2 = STAYED IN LOCATION BUT MOVED TO HIGHER ELEVATION
- 3 = RELOCATED TO ANOTHER LOCATION
- 4 = RELOCATED TO ANOTHER LOCATION AND HIGHER ELEVATION
- 5 = OTHER **(SPECIFY: \_\_\_\_\_)**

Q30. In what city and state was it located? **(FILL IN BELOW)**

\_\_\_\_\_

Q31. How long did it take you to get there? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOURS \_\_\_\_\_ MINUTES \_\_\_\_\_

Q32. How did you get there? **(CIRCLE ONE)** (*Insert appropriate list for recommended protective action*)

POSSIBLE LIST FOR EVACUATION

- 1 = PERSONAL VEHICLE
- 2 = FRIEND'S OR RELATIVE'S VEHICLE
- 3 = BUS
- 4 = WALK/BICYCLE
- 5 = OTHER **(SPECIFY \_\_\_\_\_)**

POSSIBLE LIST FOR SHELTER IN PLACE

- 1 = STAYED WERE I WAS
- 2 = WALKED
- 3 = RAN
- 4 = CLIMBED
- 5 = TOOK ELEVATOR
- 6 = RODE BICYCLE
- 7 = DROVE VEHICLE
- 8 = RODE IN VEHICLE
- 9 = OTHER **(SPECIFY \_\_\_\_\_)**

**THE LAST SET OF QUESTIONS IS ABOUT YOUR PERSONAL ATTRIBUTES. ANSWERS TO THESE QUESTIONS WILL HELP US LEARN HOW DIFFERENT TYPES OF PEOPLE RECEIVE AND RESPOND TO FLOOD WARNINGS.**

Q33. Do you consider yourself male, female, or other? **(CIRCLE ONE)**

- 1 = MALE
- 2 = FEMALE
- 3 = OTHER **(SPECIFY \_\_\_\_\_)**

Q34. Which one of the following racial/ethnic groups best describes you? If you identify with more than one, choose the group you identify with the most. **(CIRCLE ONE)**

- 1 = WHITE
- 2 = HISPANIC OR LATINO
- 3 = BLACK OR AFRICAN AMERICAN
- 4 = ASIAN
- 5 = NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
- 6 = AMERICAN INDIAN OR ALASKAN NATIVE
- 7 = OTHER **(SPECIFY \_\_\_\_\_)**

Q35. What was your age on your last birthday? **(CIRCLE ONE)**

- 1 = 18-24 YEARS OLD
- 2 = 25-34 YEARS OLD
- 3 = 35-44 YEARS OLD
- 4 = 45-54 YEARS OLD
- 5 = 55-64 YEARS OLD
- 6 = 65-74 YEARS OLD
- 7 = 75 YEARS OR OLDER

Q36. What is the highest level of education you have completed? **(CIRCLE ONE)**

- 1 = LESS THAN HIGH SCHOOL DIPLOMA
- 2 = HIGH SCHOOL DIPLOMA OR EQUIVALENT
- 3 = SOME COLLEGE BUT NO DEGREE
- 4 = ASSOCIATE DEGREE
- 5 = BACHELOR DEGREE
- 6 = GRADUATE DEGREE

Q37. Thinking of all the people in your household, was the total household income from all sources in 2016? Please include your own income as well. **(CIRCLE ONE)**

- 1 = LESS THAN \$15,000
- 2 = \$15,000 TO \$24,999
- 3 = \$25,000 TO \$34,999
- 4 = \$35,000 TO \$49,999
- 5 = \$50,000 TO \$74,999
- 6 = \$75,000 TO \$99,999
- 7 = \$100,000 TO \$149,999
- 8 = \$150,000 TO \$199,999
- 9 = \$200,000 OR MORE

Q38. Which of the following categories best describes your employment status? **(CIRCLE ONE)**

- 1 = EMPLOYED (INCLUDING SELF-EMPLOYED), WORKING 1-39 HOURS PER WEEK
- 2 = EMPLOYED (INCLUDING SELF-EMPLOYED), WORKING 40 OR MORE HOURS PER WEEK
- 3 = NOT EMPLOYED, LOOKING FOR WORK
- 4 = NOT EMPLOYED, NOT LOOKING FOR WORK
- 5 = RETIRED
- 6 = DISABLED, NOT ABLE TO WORK
- 7 = STAY AT HOME MOM/DAD

Q39. How many people and pets including yourself lived in your household on (*Insert Date of First Alert/Warning*), the day the (*Insert Recommended Protective Action*) was ordered? **(INSERT NUMBERS IN BLANKS BELOW)**

\_\_\_\_\_ CHILDREN UNDER THE AGE OF 18

\_\_\_\_\_ ADULTS OVER THE AGE OF 18 AND UNDER THE AGE OF 65

\_\_\_\_\_ ADULTS AGE 65 AND OLDER

\_\_\_\_\_ PETS



**PLEASE USE THE SPACE BELOW TO TELL US ANYTHING ELSE YOU'D LIKE TO SAY ABOUT YOUR EXPERIENCE WITH THE (INSERT NAME OF EVENT) ON (INSERT DATE OF FIRST ALERT/WARNING).**

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**PLEASE PROVIDE US YOUR NAME AND MAILING ADDRESS IN THE SPACE PROVIDED BELOW IF YOU WOULD LIKE US TO SEND YOU A \$15 GIFT CARD TO THANK YOU FOR PARTICIPATING IN THE SURVEY.**

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

Thank you for taking the time to complete the survey. The (insert name of entity conducting the survey here) can be reached by phone at (insert the telephone number of the entity conducting the survey here).

***END***

**APPENDIX 11**  
**GENERIC PUBLIC CODEBOOK**

# CODEBOOK

## PUBLIC RESPONSE TO THE (INSERT NAME OF EVENT) ALERTS AND WARNINGS ON (INSERT DATE OF EVENT)

RESPONDENT NUMBER \_\_\_\_\_

THE FIRST QUESTIONS ASK ABOUT THINGS IN THE TIME PERIOD BETWEEN WHEN (INSERT NAME OF EVENT) FIRST BEGAN UNTIL JUST BEFORE THE (INSERT RECOMMENDED PROTECTIVE ACTION) MESSAGES WERE ISSUED.

### CONSTRUCT: PRE-PROTECTIVE ACTION INFORMATION: MEDIA

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

- Q1. How much time would you estimate you spent watching, reading, or listening to media and internet reports about what was happening regarding (Insert Name of Event) before the official (Insert Recommended Protective Action) began? **(FILL IN BELOW)**

\_\_\_\_\_ NUMBER OF HOURS (Ratio Coding)

*Convert answers into ratio codes (e.g. 1½ hours = 1.5 hours)*

### CONSTRUCT: PRE-PROTECTIVE ACTION INFORMATION: PEOPLE

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

- Q2. How many total hours would you estimate you spent talking with other people, such as friends, relatives, co-workers, and strangers, about what was happening regarding (Insert Name of Event) before the official (Insert Recommended Protective Action) began? **(FILL IN BELOW)**

\_\_\_\_\_ NUMBER OF HOURS (Ratio Coding)

*Convert answers into ratio codes (e.g. 1½ hours = 1.5 hours)*

THE NEXT QUESTIONS ARE ABOUT WHERE YOU LIVED AND WORKED ON (INSERT DATE OF FIRST ALERT/WARNING), THE DAY THE (INSERT RECOMMENDED PROTECTIVE ACTION) BEGAN.

CONSTRUCT: COUNTY LOCATION: RESIDENCE

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q3. Which of the following counties best describes where you *lived* on (*Insert Date of First Alert/Warning*)? **(CIRCLE ONE)** (Nominal Coding)

1 = (*INSERT FIRST RELEVANT COUNTY*)

2 = (*INSERT NEXT RELEVANT COUNTY (IF APPLICABLE)*)

N = (*INSERT LAST RELEVANT COUNTY*)

CONSTRUCT: CITY LOCATION: RESIDENCE

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q4. Which of the following cities, towns, or places best describes where you *lived* on (*Insert Date of First Alert/Warning*)? **(CIRCLE ONE)** (Nominal Coding)

1 = (*INSERT FIRST RELEVANT CITY*)

2 = (*INSERT NEXT RELEVANT CITY (IF APPLICABLE)*)

N = (*INSERT LAST RELEVANT CITY*)

N + 1 = OTHER **(SPECIFY: \_\_\_\_\_)**

CONSTRUCT: COUNTY LOCATION: WORK

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q5. Which of the following counties best describes where you *worked* on (*Insert Date of First Alert/Warning*)? **(CIRCLE ONE)** (Nominal Coding)

1 = (*INSERT FIRST RELEVANT COUNTY*)

2 = (*INSERT NEXT RELEVANT COUNTY (IF APPLICABLE)*)

N = (*INSERT LAST RELEVANT COUNTY*)

N + 1 = OTHER **(SPECIFY: \_\_\_\_\_)**

9 = I WASN'T EMPLOYED ON (*INSERT DATE OF FIRST ALERT/WARNING*)

CONSTRUCT: CITY LOCATION: WORK

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q6. Which of the following cities, towns, or places best describes where you *worked* on (*Insert Date of First Alert/Warning*)? **(CIRCLE ONE)** (Nominal Coding)

1 = (*INSERT FIRST RELEVANT CITY*)

2 = (*INSERT NEXT RELEVANT CITY (IF APPLICABLE)*)

N = (*INSERT LAST RELEVANT CITY*)

N + 1 = OTHER **(SPECIFY: \_\_\_\_\_)**

99 = I WASN'T EMPLOYED ON (*INSERT DATE OF FIRST ALERT/WARNING*)

THE NEXT QUESTIONS ARE ABOUT THE "FIRST (INSERT RECOMMENDED PROTECTIVE ACTION) MESSAGE" YOU RECEIVED ON OR AFTER (INSERT DATE OF FIRST ALERT/WARNING). BY MESSAGE WE MEAN INFORMATION FROM GOVERNMENT, MEDIA, OR PERSONAL CONTACTS SUCH AS FRIENDS, RELATIVES, OR CO-WORKERS.

***IF YOU DID NOT RECEIVE A (INSERT RECOMMENDED PROTECTIVE ACTION) MESSAGE, SKIP TO QUESTION 25***

CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: DATE

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q7. Think about the *first (Insert Recommended Protective Action)* message you received aimed at people in the area in which you were located. What day did you get that message? **(CIRCLE ONE)** (Nominal Coding)

1 = (*INSERT FIRST RELEVANT DATE*)

2 = (*INSERT NEXT RELEVANT DATE (IF APPLICABLE)*)

N = (*INSERT LAST RELEVANT DATE (IF APPLICABLE)*)

9 = OTHER (**SPECIFY:** \_\_\_\_\_)

CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: TIME

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q8. Think about the *first (Insert Recommended Protective Action)* message you received aimed at people in the area in which you were located. What time did you get that message? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOUR \_\_\_\_\_ MINUTE \_\_\_\_\_ AM or PM \_\_\_\_\_ (Interval Coding)

*Convert answers into interval codes minutes after midnight on the day they received the message (e.g. 12:01 AM = 1; 5:45 PM = 1065)*

CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: DIFFUSION BY CHANNEL

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q9. How was the first (*Insert Recommended Protective Action*) message you received communicated to you? **(CIRCLE ONE)** (Nominal Coding)

1 = LAND LINE TELEPHONE WITH A RECORDED MESSAGE

2 = LAND LINE TELEPHONE WITH A LIVE PERSON

3 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE

4 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON

5 = TEXT MESSAGE – ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE

- 6 = INTERNET – AN EMAIL
- 7 = INTERNET – SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK
- 8 = INTERNET – WEBSITE
- 9 = FACE-TO-FACE FROM AN AUTHORITY
- 10 = FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER
- 11 = AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER
- 12 = TELEVISION
- 13 = RADIO
- 14 = TONE ALERT NATIONAL WEATHER SERVICE RADIO
- 15 = OUTDOOR WARNING SIREN
- 16 = OTHER (**SPECIFY:** \_\_\_\_\_)

**CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: DIFFUSION BY SOURCE**

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q10. Still thinking about the first message you received, who was that message from?

**(CIRCLE ONE)** (Nominal Coding) (*Customize the following list as appropriate*)

- 1 = LOCAL POLICE
- 2 = LOCAL FIRE DEPARTMENT
- 3 = LOCAL OFFICE OF EMERGENCY SERVICES
- 4 = CITY OFFICIAL
- 5 = COUNTY SHERIFF
- 6 = COUNTY OFFICIAL
- 7 = STATE OFFICIAL
- 8 = NATIONAL WEATHER SERVICE
- 9 = FAMILY MEMBER OR OTHER RELATIVE
- 10 = NEIGHBOR OR FRIEND
- 11 = EMPLOYER
- 12 = CO-WORKER
- 13 = TV, RADIO, OR INTERNET BROADCASTER
- 14 = OTHER (**SPECIFY:** \_\_\_\_\_)

**CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: ACTIVITY**

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q11. Where were you when you received your first (*Insert Recommended Protective Action*) message? **(CIRCLE ONE)** (Nominal Coding)

- 1 = AT HOME
- 2 = AT WORK
- 3 = SHOPPING AT A STORE
- 4 = DRIVING A VEHICLE
- 5 = PASSENGER IN A VEHICLE
- 6 = PASSENGER IN A PUBLIC TRANSIT VEHICLE
- 7 = IN TRANSIT – NOT IN A VEHICLE

- 8 = ENGAGED IN AN OUTDOOR RECREATIONAL ACTIVITY
- 9 = ENGAGED IN AN INDOOR RECREATIONAL ACTIVITY
- 10 = AT A RELATIVE'S OR FRIEND'S PLACE
- 11 = OTHER (**SPECIFY** \_\_\_\_\_)

**CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: LOCATION**

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q12. Which of the following places best describes where you were when you received your first (*Insert Recommended Protective Action*) message? (**CIRCLE ONE**)

(Nominal Coding)

1 = (*INSERT FIRST RELEVANT CITY*)

2 = (*INSERT NEXT RELEVANT CITY (IF APPLICABLE)*)

N = (*INSERT LAST RELEVANT CITY*)

N + 1 = OTHER (**SPECIFY:** \_\_\_\_\_)

**CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: UNITED HOUSEHOLD**

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q13. Were you with members of your immediate family and pets when you received your first (*Insert Recommended Protective Action*) message? (**CIRCLE ONE**) (Ordinal Coding)

1 = NO

2 = YES, BUT ONLY SOME OF THEM

3 = YES, ALL OF THEM

9 = I HAVE NO IMMEDIATE FAMILY MEMBERS OR PETS

**THE FOLLOWING QUESTIONS ASK ABOUT WHAT YOU MAY HAVE THOUGHT WHEN YOU RECEIVED YOUR FIRST (*Insert Recommended Protective Action*) MESSAGE.**

**CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: BELIEVABILITY**

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q14. How believable was the first (*Insert Recommended Protective Action*) message you received on a scale of 1 to 6 where 1 represents "not at all believable" and 6 represents "completely believable?" (**CIRCLE ONE**) (Ordinal Coding)

NOT AT ALL

COMPLETELY

BELIEVABLE

BELIEVABLE

1

2

3

4

5

6

**CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: UNDERSTAND**

Q15. After receiving your first (*Insert Recommended Protective Action*) message, how much would you say you understood each of the following things on a scale of 1 to 6 where 1 represents “did not understand at all” and 6 represents “fully understood?” **(CIRCLE ONE FOR EACH)** (Ordinal Coding)

	DID NOT UNDERSTAND <u>AT ALL</u>			FULLY UNDERSTOOD		
	1	2	3	4	5	6
A. What could happen as a result of ( <i>Insert Name of Event</i> )? <i>Variable Name</i> _____ <i>Column Number(s)</i> _____	1	2	3	4	5	6
B. The risk of flooding? <i>Variable Name</i> _____ <i>Column Number(s)</i> _____	1	2	3	4	5	6
C. What to do to protect yourself? <i>Variable Name</i> _____ <i>Column Number(s)</i> _____	1	2	3	4	5	6
D. What locations could be affected? <i>Variable Name</i> _____ <i>Column Number(s)</i> _____	1	2	3	4	5	6
E. When you were supposed to ( <i>Insert Recommended Protective Action</i> )? <i>Variable Name</i> _____ <i>Column Number(s)</i> _____	1	2	3	4	5	6
F. How long you were supposed to ( <i>Insert Recommended Protective Action</i> )? <i>Variable Name</i> _____ <i>Column Number(s)</i> _____	1	2	3	4	5	6
G. Who the message was from? <i>Variable Name</i> _____ <i>Column Number(s)</i> _____	1	2	3	4	5	6



**CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: BELIEVE**

Q16. After receiving your first (*Insert Recommended Protective Action*) message, how much would you say you believed each of the following things on a scale of 1 to 6 where 1 represents “did not believe” and 6 represents “fully believed?” **(CIRCLE ONE FOR EACH)** (Ordinal Coding)

	<u>DID NOT BELIEVE</u>				<u>FULLY BELIEVED</u>	
A. The ( <i>Insert Name of Event</i> ) would occur	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						
B. My home would be flooded	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						
C. My town would be flooded	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						

**CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: RISK PERCEPTION**

Q17. After receiving your first (*Insert Recommended Protective Action*) message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “not likely” and 6 represents “extremely likely?” **(CIRCLE ONE FOR EACH)** (Ordinal Coding)

	<u>NOT LIKELY</u>				<u>EXTREMELY LIKELY</u>	
A. The message was meant for me	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						
B. I might become injured	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						
C. Other people might become injured	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						
D. I might die	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						
E. Other people might die	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						

CONSTRUCT: FIRST PROTECTIVE ACTION MESSAGE: DECISION MAKING

Q18. After receiving your first (*Insert Recommended Protective Action*) message, how much would you say you agreed with each of the following statements on a scale of 1 to 6 where 1 represents “disagree” and 6 represents “agree?” **(CIRCLE ONE FOR EACH)** (Ordinal Coding)

	<u>DISAGREE</u>				<u>AGREE</u>	
A. The message helped me decide what to do	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						
B. It was easy to decide what to do	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						
C. I was able to decide what to do quickly	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						
D. I decided what to do with confidence	1	2	3	4	5	6
Variable Name _____						
Column Number(s) _____						

**THE NEXT SET OF QUESTION ASK ABOUT THE TIME PERIOD *AFTER* YOU RECEIVED YOUR FIRST (*INSERT RECOMMENDED PROTECTIVE ACTION*) MESSAGE BUT *BEFORE* YOU BEGAN YOUR (*INSERT RECOMMENDED PROTECTIVE ACTION*) OR DECIDED TO NOT (*INSERT RECOMMENDED PROTECTIVE ACTION*).**

CONSTRUCT: ADDITIONAL PRE-PROTECTIVE ACTION MESSAGES: NUMBER

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q19. After receiving your first (*Insert Recommended Protective Action*) message, but before you either began your (*Insert Recommended Protective Action*) or decided not to (*Insert Recommended Protective Action*), how many additional (*Insert Recommended Protective Action*) messages did you receive? **(FILL IN BLANK)**

\_\_\_\_\_ NUMBER OF ADDITIONAL MESSAGES (Interval Coding)

CONSTRUCT: ADDITIONAL PRE-PROTECTIVE ACTION MESSAGES: SOURCE

Q20. Who were those additional messages from? **(CIRCLE ALL THAT APPLY)** (Nominal Coding) (*Customize the following list as appropriate*)

1 = LOCAL POLICE

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

- 2 = LOCAL FIRE DEPARTMENT  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 3 = LOCAL OFFICE OF EMERGENCY SERVICES  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 4 = CITY OFFICIAL  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 5 = COUNTY SHERIFF  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 6 = COUNTY OFFICIAL  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 7 = STATE OFFICIAL  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 8 = NATIONAL WEATHER SERVICE  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 9 = FAMILY MEMBER OR OTHER RELATIVE  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 10 = NEIGHBOR OR FRIEND  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 11 = EMPLOYER  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 12 = CO-WORKER  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 13 = TV, RADIO, OR INTERNET BROADCASTER  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 14 = OTHER (**SPECIFY:** \_\_\_\_\_ )  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_
- 15 = I DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES  
*Variable Name* \_\_\_\_\_  
*Column Number(s)* \_\_\_\_\_

CONSTRUCT: ADDITIONAL PRE-PROTECTIVE ACTION MESSAGES: CHANNEL

Q21. How were those additional (*Insert Recommended Protective Action*) messages communicated to you? **(CIRCLE ALL THAT APPLY)** (Nominal Coding)

- 1 = LAND LINE TELEPHONE WITH A RECORDED MESSAGE  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 2 = LAND LINE TELEPHONE WITH A LIVE PERSON  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 3 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A RECORDED MESSAGE  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 4 = CELL PHONE OR OTHER MOBILE COMMUNICATION DEVICE WITH A LIVE PERSON  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 5 = TEXT MESSAGE - ON A MOBILE COMMUNICATION DEVICE SUCH AS A CELL PHONE  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 6 = INTERNET - AN EMAIL  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 7 = INTERNET - SOCIAL MEDIA SUCH AS TWITTER OR FACEBOOK  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 8 = INTERNET - WEBSITE  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 9 = FACE-TO-FACE FROM AN AUTHORITY  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 10 = FACE-TO-FACE FROM ANOTHER PERSON, FOR EXAMPLE FRIEND OR FAMILY MEMBER  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 11 = AN AUTHORITY IN THE STREET WITH A LOUDSPEAKER  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 12 = TELEVISION  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 13 = RADIO  
Variable Name \_\_\_\_\_

- Column Number(s) \_\_\_\_\_
- 14 = TONE ALERT NATIONAL WEATHER SERVICE RADIO  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 15 = OUTDOOR WARNING SIREN  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 16 = OTHER (**SPECIFY:** \_\_\_\_\_)  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 17 = I DID NOT RECEIVE ADDITIONAL EVACUATION MESSAGES  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_

**CONSTRUCT: POST-FIRST WARNING/PRE-PROTECTIVE ACTION INFORMATION SEARCHING CHANNEL**

Q22. Between the time you received your first (*Insert Recommended Protective Action*) message and the time you began your (*Insert Recommended Protective Action*) or decided not to (*Insert Recommended Protective Action*), did you use any of the following to communicate with others? (**CIRCLE ALL THAT APPLY**) (Nominal Coding)

- 1 = FACE-TO-FACE CONVERSATIONS  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 2 = LAND LINE PHONE CALL  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 3 = CELL PHONE CALL  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 4 = CELL PHONE TEXT MESSAGE  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 5 = SOCIAL MEDIA SUCH AS FACEBOOK OR TWITTER  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 6 = OTHER (**SPECIFY** \_\_\_\_\_)  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 9 = I DID NOT COMMUNICATE WITH OTHERS  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_

CONSTRUCT: POST-FIRST WARNING/PRE-PROTECTIVE ACTION INFORMATION  
SEARCHING SOURCE

Q23. Between the time you received your first (*Insert Recommended Protective Action*) message and the time you began your (*Insert Recommended Protective Action*) or decided not to (*Insert Recommended Protective Action*), did you seek additional information from any of the following sources? **(CIRCLE ALL THAT APPLY)**  
(Nominal Coding)

- 1 = FRIENDS, RELATIVES, NEIGHBORS, CO-WORKERS  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 2 = LOCAL OFFICIALS SUCH AS FIRE, SHERIFF, OR POLICE  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 3 = STATE OFFICIALS SUCH AS (INSERT APPROPRIATE LIST)  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 4 = INTERNET - WEBSITE  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 5 = SOCIAL MEDIA, FOR EXAMPLE, FACEBOOK OR TWITTER  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 6 = OTHER (**SPECIFY \_\_\_\_\_**)  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 9 = I DID NOT SEEK ADDITIONAL INFORMATION  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_

CONSTRUCT: POST-FIRST WARNING/PRE-PROTECTIVE ACTION ACTIONS

Q24. Between the time you received your first (*Insert Recommended Protective Action*) message and the time you began your (*Insert Recommended Protective Action*) or decided not to (*Insert Recommended Protective Action*), did you do any of the following? **(CIRCLE ALL THAT APPLY)** (Nominal Coding)

- 1 = REUNITE WITH FAMILY MEMBERS  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 2 = REUNITE OR ATTEND TO PETS  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_
- 3 = SECURE MY HOME  
Variable Name \_\_\_\_\_  
Column Number(s) \_\_\_\_\_

- 4 = SECURE MY BUSINESS  
 Variable Name \_\_\_\_\_  
 Column Number(s) \_\_\_\_\_
- 5 = PACK ITEMS TO TAKE WITH ME  
 Variable Name \_\_\_\_\_  
 Column Number(s) \_\_\_\_\_
- 6 = TOLD OTHERS I WAS (INSERT RECOMMENDED PROTECTIVE ACTION)  
 Variable Name \_\_\_\_\_  
 Column Number(s) \_\_\_\_\_
- 7 = HELPED OTHERS GET READY TO (INSERT RECOMMENDED PROTECTIVE ACTION)  
 Variable Name \_\_\_\_\_  
 Column Number(s) \_\_\_\_\_
- 8 = OTHER (**SPECIFY** \_\_\_\_\_)  
 Variable Name \_\_\_\_\_  
 Column Number(s) \_\_\_\_\_
- 9 = I DIDN'T DO ANYTHING BEFORE (INSERT RECOMMENDED PROTECTIVE ACTION)  
 Variable Name \_\_\_\_\_  
 Column Number(s) \_\_\_\_\_

**THE FOLLOWING QUESTIONS ASK ABOUT YOUR DECISION TO (INSERT RECOMMENDED PROTECTIVE ACTION) AND/OR YOUR DECISION TO NOT (INSERT RECOMMENDED PROTECTIVE ACTION).**

CONSTRUCT: PROTECTIVE ACTION COMPLIANCE

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q25. Did you (Insert Recommended Protective Action)? (Nominal Coding)

1 = YES (**IF YES, SKIP TO Q27**)

2 = NO

**IF YOU (INSERT RECOMMENDED PROTECTIVE ACTION), SKIP TO QUESTION 27**

CONSTRUCT: NON-COMPLIANCE: REASON

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q26. If you did not (Insert Recommended Protective Action), why didn't you (Insert Appropriate Protective Action)? (**CIRCLE ONE, THEN SKIP TO QUESTION 33**)

(Nominal Coding)

1 = NOT IN AREA TOLD TO (INSERT RECOMMENDED PROTECTIVE ACTION)

2 = NOT IN A LOW LYING AREA OR AN AREA THAT WOULD FLOOD

- 3 = WANTED TO PROTECT MY PROPERTY
- 4 = DID NOT THINK THERE WOULD BE A FLOOD
- 5 = NEEDED TO DO MY JOB
- 6 = DID NOT HAVE THE RESOURCES, FOR EXAMPLE MONEY OR VEHICLE  
(REPLACE WITH APPROPRIATE EXAMPLES FOR RECOMMENDED PROTECTIVE ACTION)
- 7 = PHYSICALLY UNABLE TO (INSERT RECOMMENDED PROTECTIVE ACTION)
- 8 = CHOSE TO EVACUATE RATHER THAN SHELTER IN PLACE (ONLY INCLUDE IF THE RECOMMENDED PROTECTIVE ACTION IS TO SHELTER IN PLACE)
- 9 = OTHER (**SPECIFY:** \_\_\_\_\_)

***IF YOU DID NOT (INSERT RECOMMENDED PROTECTIVE ACTION), SKIP TO QUESTION 33***

**CONSTRUCT: PROTECTIVE ACTION: PAI DATE**

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q27. What day did you begin to (Insert Recommended Protective Action) (by begin to (Insert Recommended Protective Action) we mean leave your immediate location to go to a safer area)? (**CIRCLE ONE**) (Nominal Coding)

- 1 = PRIOR TO (INSERT FIRST RELEVANT DATE)
- 2 = (INSERT FIRST RELEVANT DATE)
- 3 = (INSERT NEXT RELEVANT DATE (IF APPLICABLE))
- N = (INSERT LAST RELEVANT DATE (IF APPLICABLE))
- N + 1 = AFTER (INSERT LAST RELEVANT DATE (IF APPLICABLE))

**CONSTRUCT: PROTECTIVE ACTION: PAI TIME**

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q28. On that day, what time did you begin to (Insert Recommended Protective Action) (by begin to (Insert Recommended Protective Action) we mean leave your immediate location to go to a safer area)? (**FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE**)

HOUR \_\_\_\_\_ MINUTE \_\_\_\_\_ AM or PM \_\_\_\_\_ (Interval Coding)

*Convert answers into interval codes minutes after midnight on the day they began their (Insert Recommended Protective Action) (e.g. 12:01 AM = 1; 5:45 PM = 1065)*



CONSTRUCT: PROTECTIVE ACTION IMPLEMENTATION DESTINATION

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q29. Where did you go when you (*Insert Recommended Protective Action*)? **(CIRCLE ONE)**

(Nominal Coding) (*Insert appropriate list for recommended protective action*)

POSSIBLE LIST FOR EVACUATION

- 1 = PUBLIC SHELTER
- 2 = FRIEND OR RELATIVE
- 3 = HOTEL OR MOTEL
- 4 = WORKPLACE
- 5 = CHURCH
- 6 = CAMPGROUND/RV PARK
- 7 = OTHER **(SPECIFY: \_\_\_\_\_)**

POSSIBLE LIST FOR SHELTER IN PLACE

- 1 = STAYED IN LOCATION
- 2 = STAYED IN LOCATION BUT MOVED TO HIGHER ELEVATION
- 3 = RELOCATED TO ANOTHER LOCATION
- 4 = RELOCATED TO ANOTHER LOCATION AND HIGHER ELEVATION
- 5 = OTHER **(SPECIFY: \_\_\_\_\_)**

CONSTRUCT: EVACUATION DESTINATION CITY (ONLY APPLIES TO EVACUATION)

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q30. In what city and state was it located? **(FILL IN BELOW)** (Nominal Coding)

- 1 = Answered this question
- 2 = Did not answer this question

\_\_\_\_\_

CONSTRUCT: PROTECTIVE ACTION TIME

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q31. How long did it take you to get there? **(FILL IN BELOW WITH THE BEST ESTIMATE YOU CAN MAKE)**

HOURS \_\_\_\_\_ MINUTES \_\_\_\_\_ (Ratio Coding)

*Convert answers into ratio codes (e.g. 1hour, 20 minutes = 1.33 hours)*

CONSTRUCT: PROTECTIVE ACTION MODE OF TRANSPORTATION

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q32. How did you get there? **(CIRCLE ONE)** (Nominal Coding) (*Insert appropriate list for recommended protective action*)

POSSIBLE LIST FOR EVACUATION

- 1 = PERSONAL VEHICLE
- 2 = FRIEND'S OR RELATIVE'S VEHICLE
- 3 = BUS
- 4 = WALK/BICYCLE
- 5 = OTHER **(SPECIFY \_\_\_\_\_)**

POSSIBLE LIST FOR SHELTER IN PLACE

- 1 = STAYED WERE I WAS
- 2 = WALKED
- 3 = RAN
- 4 = CLIMBED
- 5 = TOOK ELEVATOR
- 6 = RODE BICYCLE
- 7 = DROVE VEHICLE
- 8 = RODE IN VEHICLE
- 9 = OTHER **(SPECIFY \_\_\_\_\_)**

**THE LAST SET OF QUESTIONS IS ABOUT YOUR PERSONAL ATTRIBUTES. ANSWERS TO THESE QUESTIONS WILL HELP US LEARN HOW DIFFERENT TYPES OF PEOPLE RECEIVE AND RESPOND TO FLOOD WARNINGS.**

CONSTRUCT: STATUS: SEX

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q33. Do you consider yourself male, female, or other? **(CIRCLE ONE)** (Nominal Coding)

- 1 = MALE
- 2 = FEMALE
- 3 = OTHER **(SPECIFY \_\_\_\_\_)**

CONSTRUCT: STATUS: ETHNICITY

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q34. Which one of the following racial/ethnic groups best describes you? If you identify with more than one, choose the group you identify with the most. **(CIRCLE ONE)** (Nominal Coding)

- 1 = WHITE
- 2 = HISPANIC OR LATINO
- 3 = BLACK OR AFRICAN AMERICAN
- 4 = ASIAN

- 5 = NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
- 6 = AMERICAN INDIAN OR ALASKAN NATIVE
- 7 = OTHER (**SPECIFY** \_\_\_\_\_)

CONSTRUCT: STATUS: AGE

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q35. What was your age on your last birthday? (**CIRCLE ONE**) (Ordinal Coding)

- 1 = 18-24 YEARS OLD
- 2 = 25-34 YEARS OLD
- 3 = 35-44 YEARS OLD
- 4 = 45-54 YEARS OLD
- 5 = 55-64 YEARS OLD
- 6 = 65-74 YEARS OLD
- 7 = 75 YEARS OR OLDER

CONSTRUCT: STATUS: EDUCATION

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q36. What is the highest level of education you have completed? (**CIRCLE ONE**) (Ordinal Coding)

- 1 = LESS THAN HIGH SCHOOL DIPLOMA
- 2 = HIGH SCHOOL DIPLOMA OR EQUIVALENT
- 3 = SOME COLLEGE BUT NO DEGREE
- 4 = ASSOCIATE DEGREE
- 5 = BACHELOR DEGREE
- 6 = GRADUATE DEGREE

CONSTRUCT: STATUS: INCOME

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q37. Thinking of all the people in your household, was the total household income from all sources in 2016? Please include your own income as well. (**CIRCLE ONE**)

(Ordinal Coding)

- 1 = LESS THAN \$15,000
- 2 = \$15,000 TO \$24,999
- 3 = \$25,000 TO \$34,999
- 4 = \$35,000 TO \$49,999
- 5 = \$50,000 TO \$74,999
- 6 = \$75,000 TO \$99,999
- 7 = \$100,000 TO \$149,999
- 8 = \$150,000 TO \$199,999
- 9 = \$200,000 OR MORE

CONSTRUCT: STATUS: OCCUPATION

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

Q38. Which of the following categories best describes your employment status? (**CIRCLE ONE**) (Nominal Coding)

1 = EMPLOYED (INCLUDING SELF-EMPLOYED), WORKING 1-39 HOURS PER WEEK

2 = EMPLOYED (INCLUDING SELF-EMPLOYED), WORKING 40 OR MORE HOURS PER WEEK

3 = NOT EMPLOYED, LOOKING FOR WORK

4 = NOT EMPLOYED, NOT LOOKING FOR WORK

5 = RETIRED

6 = DISABLED, NOT ABLE TO WORK

7 = STAY AT HOME MOM/DAD

CONSTRUCT: ROLE: ROLES OF RESPONSIBILITY

Q39. How many people and pets including yourself lived in your household on (*Insert Date of First Alert/Warning*), the day the (*Insert Recommended Protective Action*) was ordered? (**INSERT NUMBERS IN BLANKS BELOW**) (Interval Coding)

\_\_\_\_\_ CHILDREN UNDER THE AGE OF 18

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

\_\_\_\_\_ ADULTS OVER THE AGE OF 18 AND UNDER THE AGE OF 65

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

\_\_\_\_\_ ADULTS AGE 65 AND OLDER

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

\_\_\_\_\_ PETS

Variable Name \_\_\_\_\_

Column Number(s) \_\_\_\_\_

**PLEASE USE THE SPACE BELOW TO TELL US ANYTHING ELSE YOU'D LIKE TO SAY ABOUT YOUR EXPERIENCE WITH THE (INSERT NAME OF EVENT) ON (INSERT DATE OF FIRST ALERT/WARNING).**

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***END***