# KERN EMERGENCY OPERATIONS PLAN

# KELSO CREEK COMMUNITIES FLOOD WARNING & NOTIFICATION CONTINGENCY PLAN

**DRAFT**

# FOREWORD

This notification protocol was developed and will be maintained by the Kern County Office of Emergency Services in close cooperation with County departments and the Kern County Water Agency. This plan is a Contingency Plan under the Kern County Emergency Operations Plan and will be implemented by the strategic and operational concepts described within the Plan. All authorities and references specifically stated in the EOP are applicable to this contingency plan.

The plan provides a general framework for communication protocol, and alert and warning operations due to potential or actual flooding due to weather events that impact the communities in the Kelso Creek area, or potential failure along the flood control embankment owned and maintained by the Kern County Water Agency, commonly referred to as Improvement District No. 3.

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## 1.0 Purpose and Scope

This Plan describes monitoring actions, communications protocol, and alert and warning response to be taken by various organizations to potential or actual flooding in the Kelso Creek area.

### 1.1 Objectives

- Clarify monitoring activities of the Kern County Engineering, Surveying, and Permit Services Department (ESPS) and the notification protocol from ESPS to County departments and the Kern County Water Agency (KCWA).
- Clarify the monitoring activities of the KCWA, owner and operator of the flood control embankment located in the Kelso Creek area and known as Improvement District No. 3 (ID3), and notification protocol between KCWA and the County of Kern.
- Clarify response activities that will be implemented upon notification of a potential of flood incident.
- Provide guidance for public alert and warning messaging.
- Identify preparedness efforts to be implemented to support situational awareness for local residents of potential hazards and appropriate individual/family response.

### 1.2 Relationship to Other Plans

This Contingency Plan is incorporated into the Kern County Emergency Operation Plan (EOP) by reference and is designed to follow the emergency management organization, roles and responsibilities, concept of emergency operations, and resource management set forth in the EOP.

### 1.3 Compliance With State and Federal Requirements

As a contingency plan under the Kern County EOP, this plan complies with the state Standardized Emergency Management System (SEMS) and federal National Incident Management System (NIMS).

## 2.0 Authorities and References

The general emergency management and operations authorities and references, which apply to this Contingency Plan are listed in the Kern County Emergency Operations Plan.

## 3.0 Threat Summary

The subject threat of this plan is flooding within the generalized area of communities in the Kelso Creek area. Historically, this watershed has contributed to instances of extremely heavy runoff, resulting in substantial damage to public and private property. Flooding of this scope is usually attributable to a 100-year storm event, or when the loss of important watershed due to wildfire creates a new extreme vulnerability to communities in the flood path.

Wildfire incidents can denude the upper watershed, which may create a hydrophobic sediment and debris layer. Subsequent rainfall on these materials can result in flash flooding. Flash flood

events may also result if the ground is saturated from previous rainfall. The watershed can create an alluvial muddy flow that scours the ground and deposits materials, which will change the flow of water.

Rain gauge equipment does not provide real-time readings. Water flow monitoring gauges are not, and cannot, be installed in this area due to insufficient anchoring infrastructure and lack of a reliably defined channel.

It is assumed that a flood in this area may be one component of a larger-scale incident which will limit the first responder resources available for immediate deployment.

Limited ingress/egress routes which themselves are subject to being flooded and may be constructed of soft soil materials that will become impassible upon the arrival of floodwaters, may prevent residents from self-evacuating by vehicle and delay first responder personnel from accessing the community.

In the Kelso Creek area south of Highway 178, cell phone communications may not be widely available; first responder radio communications are of limited clarity; and communications via mobile data computers have only limited reliability due to connection limitations.

It is assumed that, due to demographic fluidity, some residents may not have historical knowledge of previous flood events and therefore may have limited awareness of the potential risk.

Few homes in this community are assessed to be well mitigated for floods. Many structures and mobile homes are not expected to withstand the impact of floodwaters. The community demographics include elderly and low-income residents.

An embankment in the area, owned and operated by the KCWA, is a sandy berm that has historically suffered damage by previous flood events, most recently in 2010. The Kelso stream bed that runs near homes in the Weldon Valley Ranchos is perched above the homes along a portion of its length, due to topography and aggradation of the streambed. An embankment failure could result in swiftly moving water around many of the homes that are behind the embankment in the area.

### 3.1 Triggering Events

There are four primary circumstances identified that could create a flood situation:

- Winter weather events that produce rainfall of continuing duration over the watershed.
- Rainfall on top of a winter snowpack causing a sudden melting of the snowpack.
- Flash floods due to localized thunderstorms, which tend to materialize quickly.
- Failure of the ID3 Embankment due to winter storm flooding or flash flood events.

### 3.1.1 Flood Control Embankment Description

The KCWA is responsible for maintenance and operation of a flood control embankment system created in 1970 to protect portions of the Weldon area, east of Lake Isabella in Kern County, CA. In 1970, the Agency created Improvement District No. 3 to finance the maintenance and operations of the embankment. The Improvement District No. 3 embankment is located on a reach of Kelso Creek along the westerly edge of the development known as Weldon Valley Ranchos.

The flood control embankment extends about 11,000 feet southerly from just north of Trotter Lane to about 600 feet north of the Kelso Valley Road crossing of Kelso Creek. The KCWA has jurisdiction and maintenance obligations over the embankment and channel system. During most years Kelso Creek is dry in this area. The improvement district operated by the KCWA retains responsibility for the integrity of the embankment.

Improvement District No. 3 has been underfunded; as a result the KCWA has limited funding available for flood fight operations within ID3, which would be used to fund staff costs and work done by private contractors. ID3 does not have funding or responsibility to conduct flood fight operations downstream of the improvement district.

## 3.1 Inundation Area

There are three areas that this plan addresses:

1. The area upstream of Kelso Creek that is upstream of Cottontail Lane. During active flooding events, Kelso Creek flood flows upstream from Cottontail Lane are generally contained with the creek's channel. This area is typically sparsely developed with few, if any, homes or structures that would be in immediate danger. Typical damage expected would be damage to stream crossing that will isolate the area until the flows subsided and/or stream crossing is repaired.

2. The residential areas between Cottontail Lane, Trotter Lane, Kelso Creek Road, and the Kelso Creek Channel are subject to flooding from two sources.

    a. If the berm maintained by the KCWA ID3 is breached by flood flows from Kelso Creek, the resulting flood flows will continue towards the Kern River and flow into the residential area behind the berm.

    b. This area is also subject to flooding from thunderstorms in the watershed to the east, which could deposit floodwater behind the berm on the side that contains the homes.

    c. This area is also subject to flooding from flood flows escaping the channel at the Kelso Valley Road stream crossing.

3. The third area along Kelso Creek which is subject to flooding is the Power's subdivision, located upstream of Highway 178 and the Hanning Subdivision. As flows continue downstream towards the Kern River, it can meander into the northeast corner of the Hanning Subdivision. However, other portions of this subdivision can be flooded from floodwaters that cross Kelso Valley Road from thunderstorms on the watershed located southwest of the subdivision. The Power's subdivision is subject to flooding from all the sources described above.

The inundation area of the Kelso Creek includes three (3) communities within the unincorporated area of Kern County: Weldon Valley Ranchos, Valley Estates, and Powers Tract as described above.

### 3.2 Populations At Risk

- Residents and visitors in the projected inundation area
- Two schools: South Fork Elementary School and South Fork Middle School.

It is expected that flooding due to a failure of the ID3 embankment would be one component of a larger flood event, caused by a significant wet winter storm, or a tropical storm on top of a significant snowpack, or a localized thunderstorm event. The level of pre-event mitigation and incident response will be dependent upon the nature of the incident.

However, should the ID3 embankment fail, residents in immediately proximate communities would be at high risk as KCWA estimates there may be as little as five-minutes between failure and the arrival of flood waters in Weldon Valley Ranchos. Two other communities, Valley Estates and the Powers Tract would be impacted shortly thereafter or possibly from different sources. Consequently, residents would need to evacuate to high ground immediately.

### 3.4 Assumptions

1. Concept of operations and designated responsibilities outlined in the County of Kern Emergency Operations Plan remains valid for this plan.
2. The planning scenario is an actual or potential flood in the watershed area of Kelso Creek due to a significant wet winter storm, or a tropical storm over existing snowpack, flash flooding due to a localized thunderstorm, or failure of ID3 embankment.
3. Flooding can occur at any time of the day or night. Heightened risk of flooding may exist if the watershed has been previously damaged due to wildfire.
4. Limited ingress/egress constructed of soft dirt roads will become impassible upon the arrival of floodwaters and would complicate or prevent self-evacuation and delay responder resources from reaching residents for some period of time.
5. The triggering event may provide only in very limited time in which to issue public alert and warning.
6. The County of Kern and the Kern County Water Agency will activate and maintain direct communications for the duration of the incident and response.
7. The public warning messages will be disseminated by all available means, including automated systems.

## 4.0 CONCEPT OF OPERATIONS

The purpose of this plan is to clarify monitoring and communication protocol in order to issue effective public notification and warning to residents who would be impacted by flooding in the Kelso Creek communities. The ability of the County to implement these protective actions is directly correlated to the triggering event, as described below:

## 4.1 Winter Storms

Winter storm events that produce rainfall of continuing duration over an existing snowpack have the potential to create flooding incidents.

The Kern County Engineering, Surveying, and Permit Services Department (ESPS) routinely monitors snowpack, ground saturation levels and weather forecasts issued by the National Weather Service – Hanford (NWS). This process provides early awareness of potential flood events and will allow for heightened monitoring by ESPS, communication between response organizations, and mitigation efforts through deployment and staging of equipment.

## 4.2 Flash Flood Due to Localized Thunderstorms

Thunderstorm activity can be monitored through the NWS-Hanford radar tracking system. However, these weather events tend to materialize quickly and identification of these events through the radar tracking system will allow very limited, if any, pre-event notification. The NWS typically broadcasts thunderstorm warnings as their monitoring system is able to predict such weather events in a generalized area.

The ability to accurately predict the exact location or intensity of these events does not currently exist. However, the potentially affected community members can use the warnings to maintain heighted awareness and proactively monitor local conditions.

Rain gauge equipment to monitor the levels of rainfall does not provide real-time information and may be two to three hours behind actual occurrence. Significant amounts of rainfall may be under-reported due to the limited number of rain gauges.

There are no water flow gauges installed in the Kelso Creek area; this equipment cannot be successfully installed in this area due to a lack of anchoring infrastructure and the alluvial type river flows.

Due to the quick development of thunderstorm-related flooding events and lack of systematic processes to predict such events, there would be very limited capability to deploy and stage responder personnel and equipment or issue specific warnings to the public.

## 4.3 Kern County Water Agency Flood Control Embankment Failure

In August 2013, the KCWA advised Kern County officials of a potential threat of flooding exists for the residents in proximate communities to the flood control embankment in the area of Kelso Creek, known as Improvement District No. 3 (ID3). The communities at risk in this event are Weldon Valley Ranchos, Valley Estates and Powers Tract. KCWA stated embankment failure would most likely be due to a flash flood or significant flood event, and may only allow an extremely short timeframe to issue public safety warnings for local residents. The KCWA projects embankment failure during a 5-Year hydrology event (approximately 1,500 cfs) could result in fast flowing water of varying depths. Should embankment failure occur during a 100-year hydrology event, the volume of water could be as high as 22,000 cfs of significantly higher velocities.

## 5.0 Pre-Event Preparedness

Given that flood events may occur from events that do not allow sufficient time for pre-incident warning, it is important that residents in this area maintain situational awareness and personal readiness to proactively implement a protective response, namely, evacuation. To support an effective decision making processes, a public outreach effort to build awareness of flood risks, understanding limitations of first responder agency response, and recognition of existing public safety alert systems, should be initiated.

Residents should be urged to develop a personal evacuation plan, remain ready to proactively take action based on their observance of conditions, and/or to an evacuation notice from the County, and/or a Flash Flood Warning issued by NWS.

## 5.1 Community Meeting

Maintaining adequate community awareness will require ongoing support. It is suggested that an annual community meeting, organized under the authority of the District 1 Board of Supervisor's office, should be initiated. Supporting agencies at this meeting would include the KCWA, ESPS, KCFD and the KCSO.

It is assumed that residential mobility will affect overall community awareness of the long existing flood potential. Newcomers may not have experienced an actual significant flood and longer-term residents, who may be more aware of potential threats, may have left the area. Consequently annual outreach efforts will be needed to address gaps in community awareness.

## 5.2 ReadyKern Notification to Residents

ReadyKern is the County's telephone emergency notification system and is used to issue public safety messages during an incident response. Public outreach to encourage registration in the ReadyKern system could improve capability to quickly advise residents of potential flood events. There is no cost to residents to register their contact information in ReadyKern. The system can issue warnings to home, work, and cell phone numbers, as provided by the resident.

However, it is known that cell phone reception in this area is limited. Accordingly, the ability of the ReadyKern system to contact residents may be limited to landline phone numbers.

### 5.2.1 ReadyKern Notification Area

- The County has pre-established polygon boundaries of the Kelso Creek community in the ReadyKern system to support prompt dissemination of public warnings. (Attachments B-D).
- The County has developed template flood advisory and warning messages to support prompt dissemination of public warnings. (Attachments B and C)

## 5.3 National Weather Service (NWS)

The NWS has a Congressional mandate to issue Flash Flood Watch and Warning messages and has established systems for issuing these warnings using a weather radio

network, the Internet and the Emergency Alert System (EAS) over local radio and television stations.

- A "Watch" is issued to give advance notice on the possibility of flash flooding and is normally issued 6-48 hours in advance of an event.
- A "Warning" is issued when flash flooding is imminent or occurring.

Public outreach should include information on NWS alerts and encouragement to monitor and heed such notifications.

## 5.4 Road Signage

Previous efforts to install signage in remote areas have been historically unsuccessful. However, signage posted along Highway 178 to advise the area is susceptible to floods could provide additional pre-event awareness to residents and travelers.

# 6.0 Emergency Response

## 6.1 Monitoring and Agency Notification

**County of Kern Monitoring**

ESPS routinely monitors snowpack, ground saturation levels and weather forecasts issued by the NWS. When appropriate, ESPS may deploy staff to conduct on-site inspections or seek confirmation from emergency personnel who may be in close proximity to the area of concern. When conditions exist that suggest a potential or actual flood event, ESPS will notify the Kern County Office of Emergency Services (Kern OES).

Kern OES will relay this notification to KCFD, KCSO and the Kern County Roads Department. If sufficient time and priorities permit, these Departments will deploy personnel and equipment to the scene to support a flood fight and/or residential notification of evacuation.

If weather conditions permit safe conduct, aerial reconnaissance may be requested from the KCFD and/or KCSO to provide visual confirmation of floodwaters and improved situational intelligence for field level response.

Kern OES will initiate contact with KCWA to ensure all responding agencies have a common situational awareness.

Kern OES will obtain authorization from KCFD or KCSO to request the Emergency Communications Center (ECC) or the Sheriff's Dispatch Center issue a warning to residents through ReadyKern.

Kern OES will also initiate contact with NWS for additional information and confirmation whether or not that Agency has released, or is planning to issue, EAS notification.

Should an evacuation response be warranted, Kern OES will notify the Kern Human Services and Animal Services departments to initiate mass sheltering operations, per standard response protocol outlined in the EOP.

**Kern County Water Agency Monitoring**

KCWA also monitors all weather news (NOAA, Accuweather, the Weather Channel and local media) for short and long term predictions. When precipitation is forecast, KCWA staff monitors five rain gauges that cover the Kelso Creek watershed (Burning Moscow, Bob Rabbit, Frog Springs, Pack Springs, and Pinyon Creek).

If precipitation is predicted to be substantial, or if measured precipitation is accumulating rapidly or in significant amounts, or due to concerns regarding the condition of the watershed (ground saturation or accumulated snowpack), KCWA staff will contact ID3 resident "weather spotters" to discuss their observations, which may include their own precipitation measurements, and visual inspection of flow in Kelso Creek and along roadways.

If KCWA staff believe that flow is occurring or imminent, or if flow is reported by a weather spotter or resident, KCWA staff will deploy, if conditions allow, to the site to perform inspections to determine if a flood fight response is warranted.

KCWA will notify Kern OES if significant flows are present in the channel that may impact ID3 and/or downstream communities. If KCWA staff cannot access the area, but have knowledge of an imminent threat, KCWA staff will notify Kern OES.

Response to a potential or actual failure of the ID3 embankment will require extraordinarily fast issuance of public safety warning messages. Communication and coordination between the County of Kern and the KCWA will be required to support an effective warning process.

## 6.2 Communications Plan

This Plan is a public document and is accessible for public review. Accordingly, it is not appropriate to include 24-hour contact information for public agencies within this document.

A contact list of agencies designated for response in this plan will be maintained and stored separately from this plan document.

The primary phone number for public use to report hazardous situations and/or request response from emergency service departments is 9-1-1. The Kern County Community Hotline can be accessed for questions about disaster events is 2-1-1.

## 6.3 Authority to Issue Public Warning Messages

Authority to direct release of public warning messages through the ReadyKern system is vested in the:

- Kern County Fire Chief & Director of Emergency Services, or designee
- Kern County Sheriff, or designee
- Incident Commander during field response

For Winter Storm events that allow adequate pre-incident preparation, Kern OES shall contact the above listed personnel to request authorization for ECC or Sheriff's Dispatch to activate ReadyKern to disseminate public safety warnings. For Flash Flood or imminent Embankment Failure incidents, in the interest of expedited response, ECC, or

Sheriff's Dispatch shall request authorization to activate ReadyKern and subsequently notify Kern OES.

## 6.4 Public Warning Notification Levels

When authorized, ECC or Sheriff Dispatch will activate the ReadyKern system to issue warning notifications.

It is important to note the County of Kern uses two levels of evacuation notification: "Precautionary" and "Recommended". Though incorrectly and commonly stated in media reports, "Mandatory" evacuation is not a functional option. The County cannot force residents to leave and would require law enforcement personnel arrest those who choose not to comply. Further, it is possible the County could be held liable for property damage through vandalism or looting if residents are forced to leave under a "Mandatory" evacuation order.

The warning will be correlated to the triggering event, as described below:

### 6.4.1 Precautionary Evacuation

Authority to issue a Precautionary Evacuation warning through ReadyKern to provide early notification shall be requested under the following circumstances:

- NWS issues a Flash Flood Watch for the Kelso Creek area, or;
- ESPS advises such a warning should be issued

Residents will be informed a forecast has been issued that flash flooding may occur in the next 6-48 hours and are advised to maintain readiness to self-evacuate.

### 6.4.2 Recommended Evacuation

Authority to issue a Recommended Evacuation warning through ReadyKern shall be requested under the following circumstances:

- NWS issues a Flash Flood Warning
- ESPS advises that flash flooding is occurring or is imminent
- KCWA reports that flash flooding is occurring or is imminent.
- ESPS or KCWA reports that a breach or failure of the embankment in imminent.
- The Incident Commander (IC) requests a warning should be issued

The County will issue warnings to the populations at risk using all available means, including local media, ReadyKern, and time permitting, public safety vehicles with public address systems.

Residents will be advised that flash flooding is occurring or is imminent and, if possible, should evacuate to high ground immediately.

Additionally, County of Kern will request NWS issue a Recommended Evacuation message through the Emergency Alert System (EAS).

## 7.0 ROLES AND RESPONSIBILITIES

In addition to the basic functions and responsibilities outlined in the County EOP, the responsibilities and functional enhancements that may be added to the Kern County departments, field, and/or EOC organizations may include one or more of the following, as required by the situation:

### 7.1 County of Kern

Emergency Communications Center (ECC)

- Receive alerts and warnings from ESPS and KCWA of observed and predicted flooding conditions
- Upon authorization to do so, issue alerts and warnings
- Make notifications as necessary

Management

- Sheriff and Fire Chief/Director of Emergency Services, will authorize issuance of precautionary and/or recommended evacuation notices.

Operations

- Law Enforcement will alert and warn those in the inundation area to evacuate, direct and coordinate traffic movement, and coordinate the activities of Search & Rescue (SAR) Teams.
- KCSO will be the primary agency to coordinate with the California Highway Patrol for significant traffic related issues.
- Fire Service will assist with alert and warning, conduct search and rescue; and assist with evacuation response, if possible

## 8.0 NOTIFICATION PROCESS

The table below lists the process for agency notification of actual or potential flooding events in the Kelso Creek area to support process of public warning. This table does not address the totality of required emergency response actions, but are discussed in the Kern County Emergency Operations Plan and are applicable to this response.

| Indicators | Initiating Agency | Response Actions |
|---|---|---|
| **Winter Storm Event** | | |
| Routine monitoring of snowpack, ground saturation level and weather forecast indicate the potential for flooding due to winter storm;<br><br>AND/OR<br><br>Report of deteriorating conditions or anticipation of damaging flows from local ID3 monitors | ESPS | • ESPS will notify Kern OES, continue situation monitoring, conduct site assessments if needed, and update responding agencies as appropriate.<br>• KCWA will notify Kern OES of awareness of any unusual conditions regarding the condition of the KCWA ID3 facilities, or of anticipating or becoming aware of high flows which may damage the facilities or downstream communities.<br>• Kern OES will notify KCFD, KCSO, Roads Dept, and KCWA.<br>• Kern OES will establish communications with NWS-Hanford to ensure focused and timely weather monitoring updates are provided to County.<br>• Pre-event coordination meeting will be conducted, as needed.<br>• Responding departments will plan coordination and timing of deployment of response and mitigation equipment, as appropriate.<br>• KCWA will conduct site assessment of embankment as appropriate and update County as needed.<br>• KCSO will issue door to door notification of Precautionary Evacuation, if conditions allow.<br>• If storm forecast holds and conditions warrant, OES will request authorization from KCFD or KCSO to issue Precautionary Evacuation warning through ReadyKern<br>• Upon authorization, ECC or Sheriff Dispatch will issue ReadyKern warning<br>• Mass care sheltering and emergency |

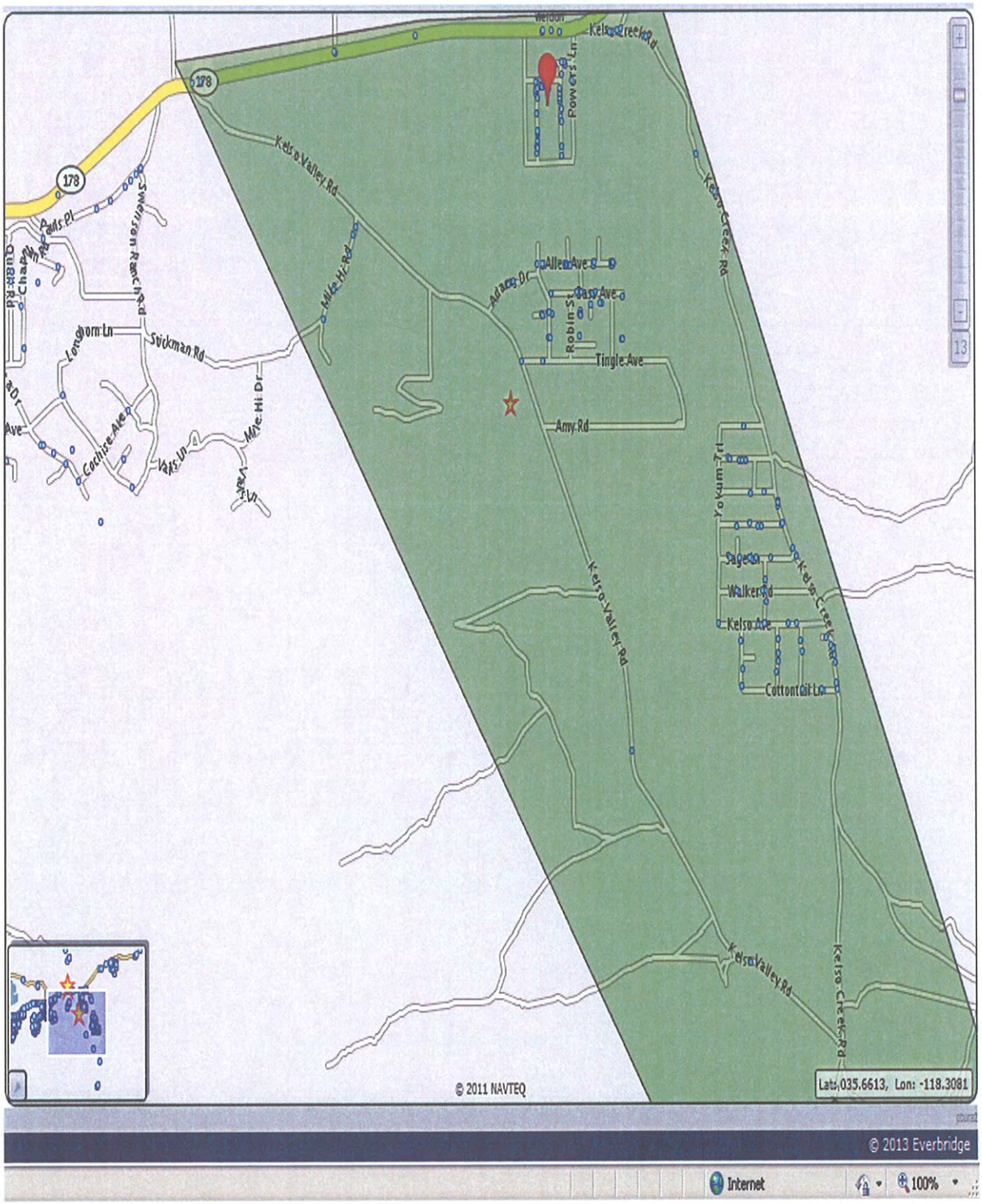
| Indicators | Initiating Agency | Response Actions |
|---|---|---|
| | | proclamations will be coordinated as outlined in the Kern EOP, as appropriate. |
| **Flash Flood Watch** | | |
| Radar monitoring indicates localized thunderstorms which may cause flash flood,<br><br>AND/OR<br><br>National Weather Service issues Flood Watch for Kelso Creek area (*)<br>(*) Possibility of flash flood within 6-48 hours<br><br>AND/OR<br><br>Report from local weather watchers to KCWA staff or KCWA staff report of significant rainfall events. | ESPS, KCWA, NWS | • ESPS will notify Kern OES, continue situation monitoring and update as needed<br>• KCWA will notify Kern OES of reports of unusual rainfall events which are likely to cause significant damage to their facilities or downstream communities.<br>- AND/OR –<br>Upon NWS issuance of Flood Watch warning, ECC will notify Kern OES<br>• Kern OES will notify ESPS, KCFD, KCSO, Roads Dept, and KCWA.<br>• Kern OES will establish communication chain with NWS-Hanford to ensure focused and timely weather monitoring updates are provided to County.<br>• Responding departments will deploy response and mitigation equipment, as appropriate.<br>• KCWA will conduct site assessment of embankment if conditions allow and update County.<br>• KCWA will contact Kelso Creek resident "weather spotters" for additional situational intelligence and update County as appropriate.<br>• KCSO will issue door to door notification of Precautionary Evacuation, if conditions allow.<br>• OES will request authorization from KCFD or KCSO to issue Precautionary Evacuation warning through ReadyKern<br>• Upon authorization, ECC or Sheriff Dispatch will issue ReadyKern warning<br>• Mass care sheltering and emergency proclamations will be coordinated as outlined in the Kern EOP, as appropriate. |

| Indicators | Initiating Agency | Response Actions |
|---|---|---|
| | | |
| **Flash Flood Warning** | | |
| National Weather Service issues Flood Warning for Kelso Creek area (*)<br><br>(*) Flash flooding in imminent of occurring | NWS | • Upon NWS issuance of Flood Watch warning, ECC will notify Kern OES.<br><br>• Kern OES will notify ESPS, KCFD, KCSO, Roads Dept, and KCWA.<br><br>• Kern OES will establish communication chain with NWS-Hanford to ensure focused and timely weather monitoring updates are provided to County.<br><br>• Responding departments will deploy response and mitigation equipment, as appropriate.<br><br>• KCWA will conduct site assessment of embankment if conditions allow and update County.<br><br>• KCWA will contact Kelso Creek resident "weather spotters" for additional situational intelligence and update County as appropriate.<br><br>• KCSO will issue door to door notification of Recommended Evacuation, if conditions allow.<br><br>• OES will request authorization from KCFD or KCSO to issue Recommended Evacuation warning through ReadyKern<br><br>• Upon authorization, ECC or Sheriff Dispatch will issue ReadyKern warning<br><br>• Kern OES will contact Kern County Human Services and other supporting agencies to implement mass care and sheltering response |

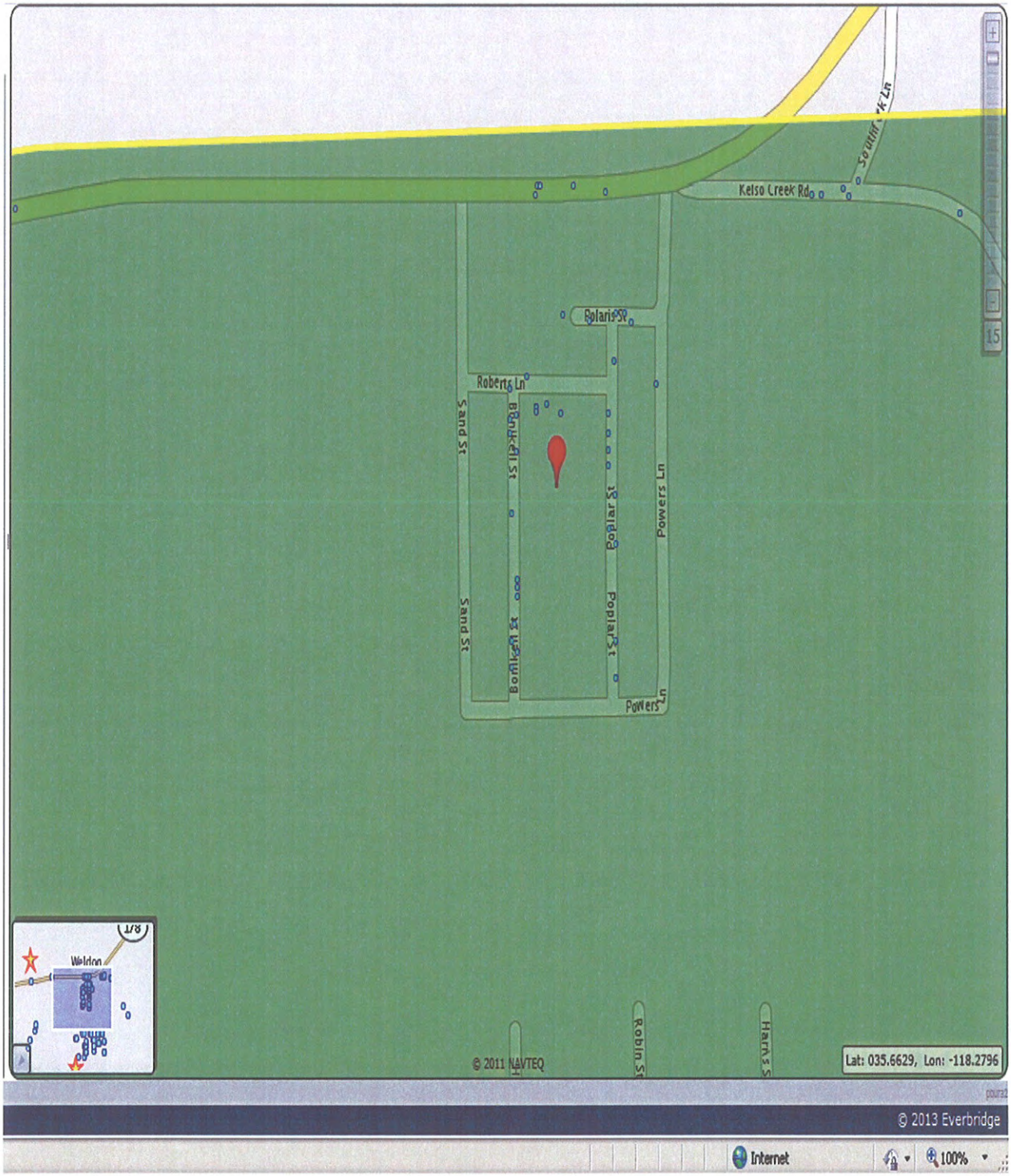
| Indicators | Initiating Agency | Response Actions |
|---|---|---|
| | | |
| **Embankment Failure** | | |
| Weather conditions and/or onsite assessments of the embankment indicate potential, imminent or occurring failure. | KCWA | • KCWA will notify Kern OES, provide continued situation monitoring, conduct site assessments if appropriate and safe to do so, and update County.<br>• Kern OES will notify KCFD, KCSO and ECC.<br>• If embankment failure is imminent or occurring, ECC will request authorization from KCFD or KCSO to issue Recommended Evacuation warning through ReadyKern and issue warning upon approval.<br>• KCSO will issue door to door notification of Recommended Evacuation, if conditions allow.<br>• Kern OES will notify ESPS and Roads Dept<br>• If embankment failure is possible (not imminent or occurring), a pre-event coordination meeting will be conducted, as needed.<br>• Responding departments will plan coordination and deployment of response and mitigation equipment, as appropriate.<br>• Mass care sheltering and emergency proclamations will be coordinated as outlined in the Kern EOP, as appropriate |

## Attachment A: Improvement District No. 3 FEMA Flood Zones

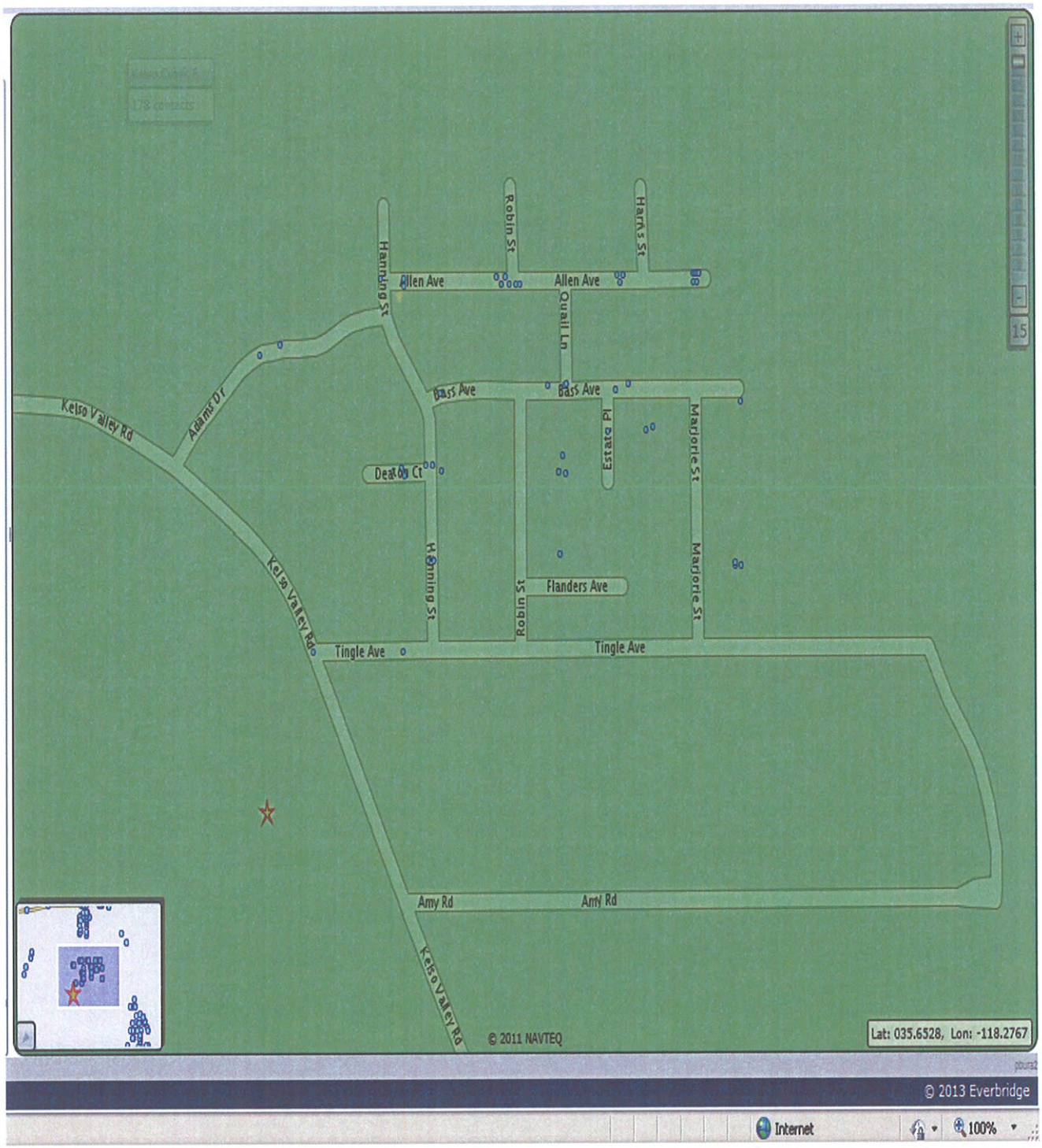
## Attachment B: Kelso Creek Communities – ReadyKern Notification Map



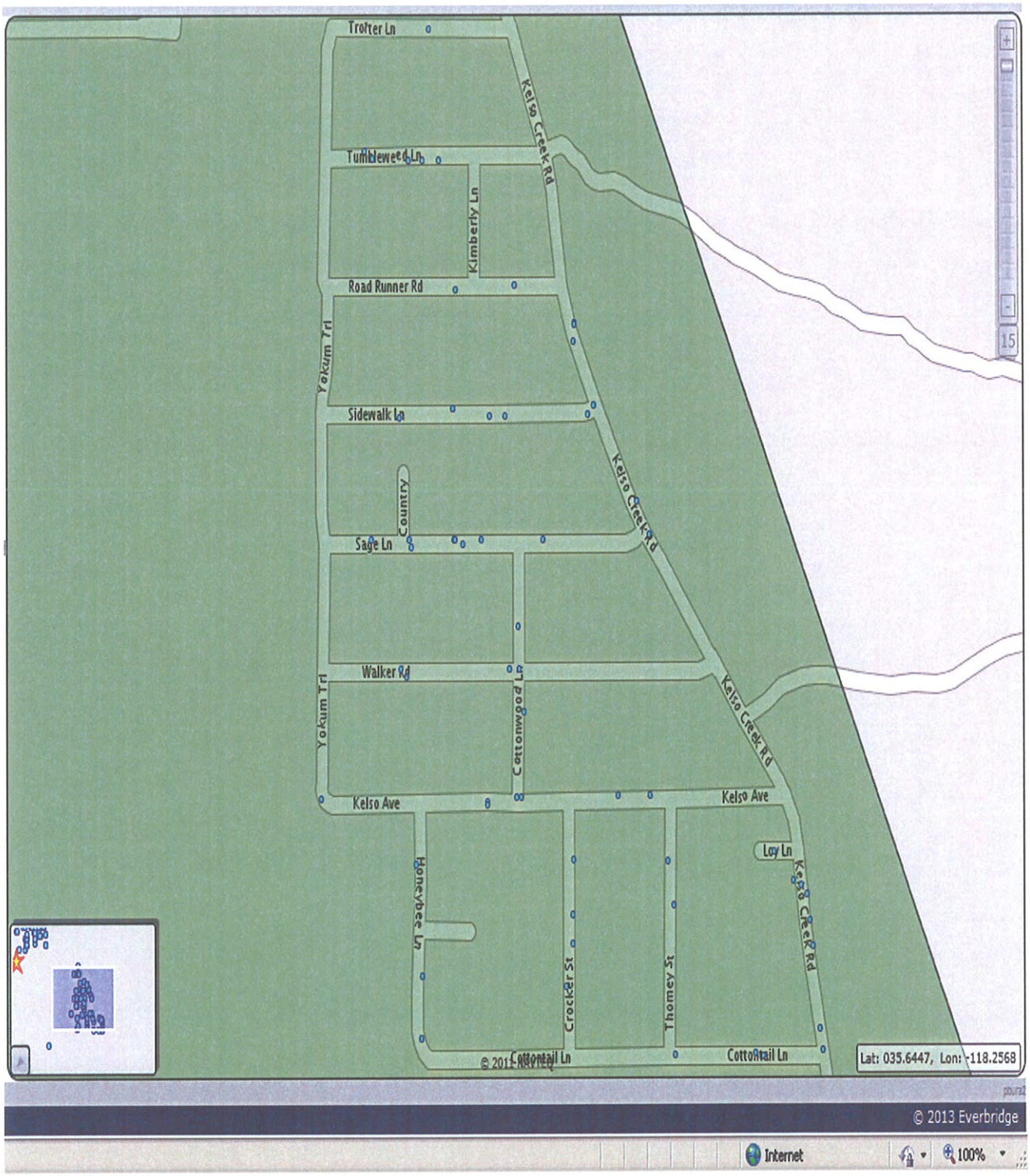
## Attachment C: Powers Tract – ReadyKern Notification Map



## Attachment D: Weldon Valley Ranchos – ReadyKern Notification Map



## Attachment E: Valley Estates – ReadyKern Notification Map



**Attachment F: ReadyKern Message Template**

# PRECAUTIONARY Evacuation

**(Upon release of National Weather Service FLASH FLOOD WATCH)**

The National Weather Service has issued a Flash Flood Watch, which is in effect through **[INSERT TIME]** on **[INSERT DAY/DATE]** for the Kelso Creek area.

**[PROVIDE SUMMARY RECAP OF NWS WARNING HERE.]**

A Flash Flood Watch means current or developing conditions could result in a flash flood event, but occurrence is not certain or imminent. Please remain aware of your surroundings. You are urged to closely monitor flood conditions in your area and be prepared to move to a place of safety if it becomes necessary for you to evacuate. Do not attempt to drive your vehicle into areas where the water covers the roadway.

Please make sure your neighbors are alerted. Please stay tuned to your local television or radio stations for more information as it becomes available.

Additional information is available at the National Weather Service website at www.wrh.noaa.gov/hnx/.

**Attachment G: ReadyKern Message Template**

# RECOMMENDED Evacuation

**(Upon release of National Weather Service FLASH FLOOD WARNING)**

The National Weather Service has issued a Flash Flood Warning, which is in effect through **[INSERT TIME]** on **[INSERT DAY/DATE]** for the Kelso Creek area.

**[PROVIDE SUMMARY RECAP OF NWS WARNING HERE.]**

A Flash Flood Warning means that flash flooding is in progress, imminent or highly likely. Please remain aware of your surroundings. You are urged to evacuate to higher ground as soon as possible. Do not attempt to drive your vehicle into areas where the water covers the roadway.

Please make sure your neighbors are alerted. Please stay tuned to your local television or radio stations for more information as it becomes available.

Additional information is available at the National Weather Service website at www.wrh.noaa.gov/hnx/.