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Banks Community Emergency Response Team (CERT) Project Proposal

Donna VandenDries

Concordia University



Executive Summary

This proposal examines the challenges the Banks Fire District is faced with if a catastrophic event, such as a Cascadia Subduction Zone (CSZ) earthquake were to strike the Pacific Northwest. The District has concerns surrounding the potential response and recovery challenges during a major disaster. The District is open to expanding its jurisdiction's capabilities with a solution that would benefit the District and Banks community members without compromising the District mission and core values. The District realizes that due to the nature of a CSZ, it will not have the resource capability to respond to the emergency needs of the community. This proposal identifies the threats and hazards to Banks and the surrounding communities that have the potential to disrupt life, infrastructure, and business. The project proposal offers potential solutions and recommendations on how the community can become better prepared for a disaster by engaging the community in emergency preparedness activities so the Banks community can stabilize themselves, family, and neighborhoods until first responders arrive.

Background

The Banks Fire District, located in Banks, Oregon, is one of the last remaining volunteer fire Districts within Washington County (Linz, 2019). Nestled up against the Coast Range, roughly 25 miles west of Portland, Oregon, the District "protects and serves" multiple communities rich in agriculture and timber, as well as hundreds of homesteads throughout the 136 square mile District jurisdiction, plus an "additional 10 miles of unprotected corridor" totaling approximately 8,000 residents and on an average of 20,000 motorists and tourists through three major highways, state Hwy's 6 and 47, and U.S. Hwy 26, plus numerous trails and L. L. Stub Stewart

State Park (Banks Fire District, 2017, p. 5). The District is responsible for three fire stations in the surrounding towns of Manning, Buxton, and Timber, that spread out approximately 10 miles from each population. The District is aware of the challenges of operating in a rural area, especially during a major disaster. The District has expressed the desire to establish a Community Emergency Response Team (CERT). However, since the District is mostly volunteer-based, several challenges hold back the District from forming a CERT team in Banks, including financial and workforce capabilities to conduct CERT classes.

Defining the problem

During a catastrophic event, such as a CSZ earthquake, the District will face difficult strategic and tactical decisions due to their limited resources. Infrastructure such as roadways, power, and water may become damaged or destroyed, making it difficult for the District to respond. The District will no doubt need additional assistance to help with response and recovery operations. However, events like earthquakes are regional. Neighboring cities will also face the same challenges as the District, exacerbating the strain on disaster response and recovery efforts within the District and beyond. Because of Bank's rural nature, volunteer firefighters living outside the Districts jurisdiction will have difficulty reaching the fire station, which will drastically reduce the District response capabilities. Currently, 35% of the Districts 70 volunteer firefighters live outside the city limits, and a significant earthquake could severely challenge the District's ability to reach citizens in Banks and the surrounding communities quickly (Linz, 2019). In the "Encyclopedia of Rural America: The Land and People," Gary Goreham (2008) states,

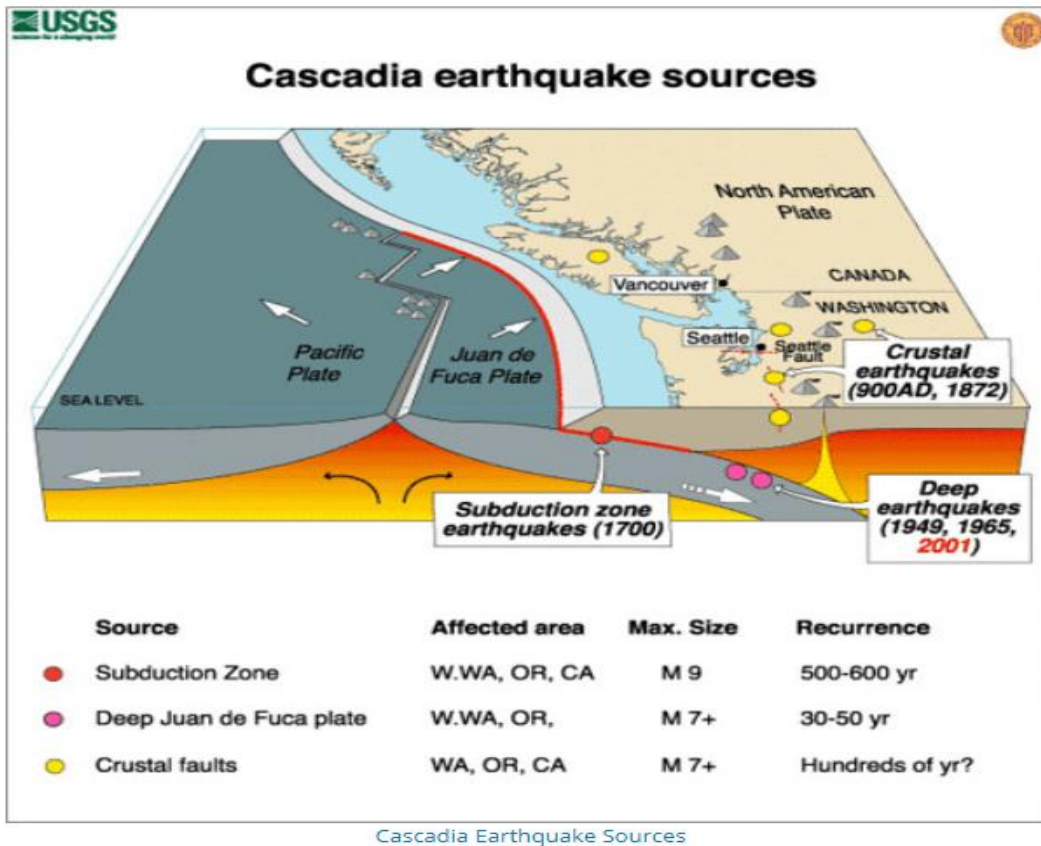
"Infrastructure and resources shape disaster preparedness and mitigation activities. Lack of infrastructure is a common characteristic in rural areas. Overly stretched resources in

normal times translate into severe lack of surge capacity if a disaster should cause large numbers of people to seek medical services at once" (p. 271-72).

The Pacific Northwest (PNW) rests alongside the Cascadia Subduction Zone (CSZ), a faultline capable of producing a catastrophic M9.0+ earthquake. According to the Cascadia Region Earthquake Workgroup (CREW) the CSZ fault is a "700-mile long fault" stretching from northern California to British Columbia, Canada, consisting of a "set of tectonic plates to the west" which is "sliding [subducting] beneath the North American Plate" (CREW, 2013, p. 5). Since the 1980s, scientists have been studying the subduction zone, and it has taken years of work to understand what the CSZ is capable of and have determined the faultline is locked, loaded, and 300 years overdue for an earthquake (CREW, 2013).

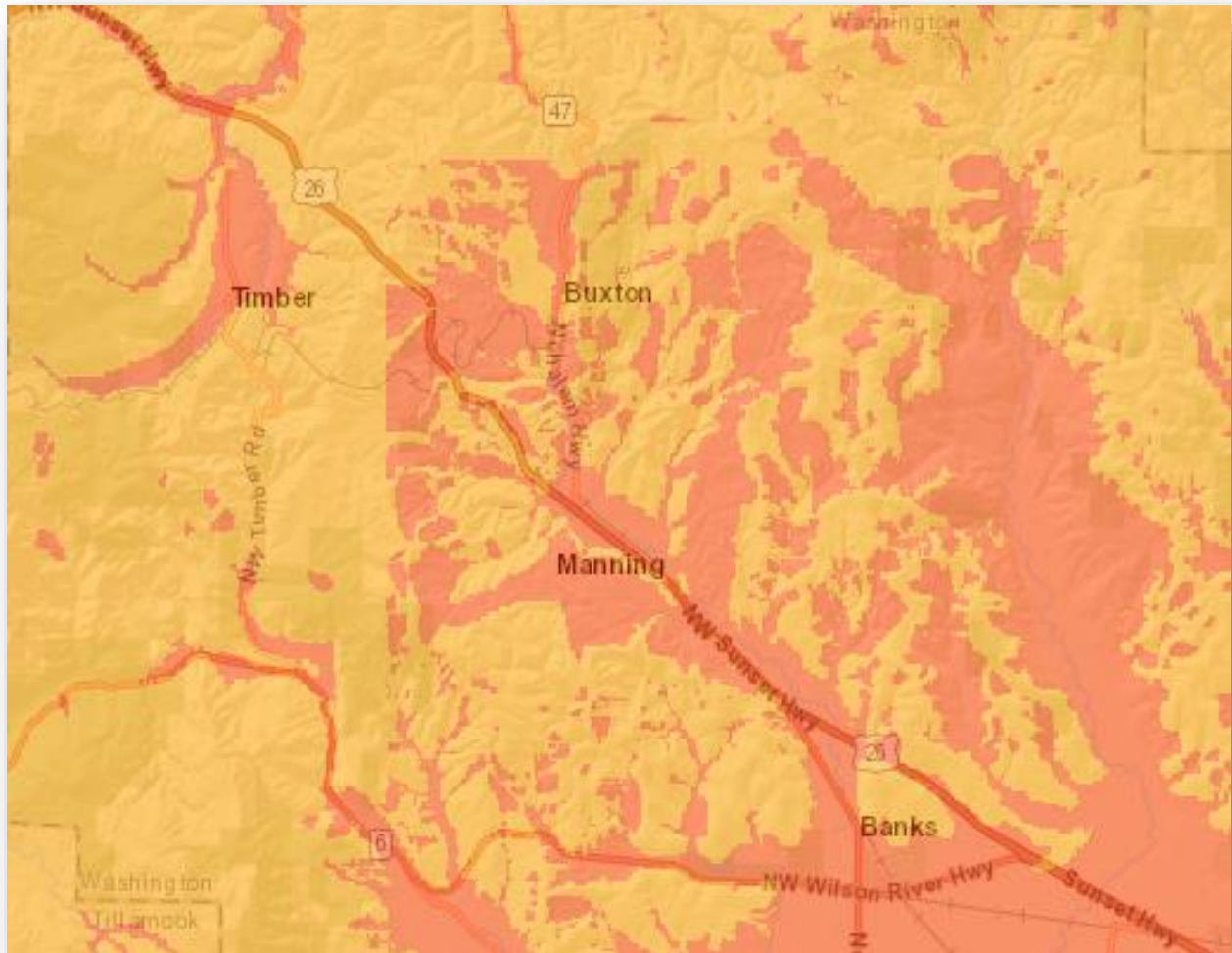
In 2011, Tōhoku, Japan, experienced a catastrophic earthquake and tsunami from a faultline that is consistent with the CDZ, reminding the PNW that it, too, is vulnerable as well. Although Banks is approximately 55 miles from the Oregon coastline, it is still close enough to feel the effects of an M9.0+ earthquake. Oregon State Geologist Vicki McConnel (as cited from Oregon Department of Geology and Mineral Industries (DOGAMI), 2012) states, "U.S. Geological Survey (USGS) geologists estimate there is a 10% chance within the next 30 years that the PNW will experience a more significant earthquake" (p. 2). The PNW Cascadia earthquake sources are illustrated in Figure 1.

Figure 1: Cascadia earthquake sources (Pacific Northwest Seismic Network, n.d.)



The CSZ has the potential to cause shaking that can last upwards to three to five minutes long (DOGAMI, 2012). Shaking lasting this long has the potential to cause severe damage, resulting in many injuries and fatalities, as well as months of response, and years of recovery for the Banks area. The expected shake intensity in the District jurisdiction, yellow indicating strong shaking and orange, indicating severe shaking, is illustrated in the CSZ hazard expected shaking map in Figure 2.

Figure 2: *Cascadia Subduction Zone (CSZ) Hazard Expected Shaking (Oregon Department of Geology and Mineral Industries, 2018)*



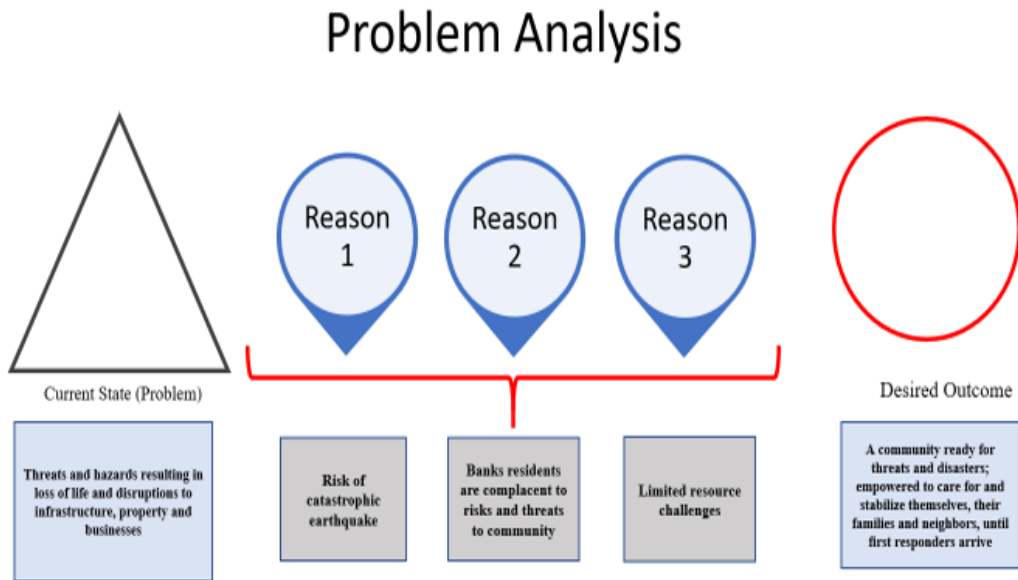
Earthquakes in the PNW region are infrequent, which does not help emergency preparedness efforts. Roughly 15-20 tremors are reported or felt in the PNW per year, Portland only receiving "six earthquakes within the greater Portland area in historical times, two of which were the M5.5 Portland earthquake (1962) and M5.6 Scotts Mill earthquake (1993)" (CREW, n.d.). However, on February 28, 2001, the PNW experienced an M6.8 earthquake that sent shockwaves across Washington and Oregon. The M6.8 Nisqually trembler resulted in four billion dollars in

damages, and 400 injuries, and one fatality (CREW, 2008). The Nisqually earthquake is a reminder that earthquakes do exist in the PNW which should remind citizens to be prepared. Several problems exist in the Districts Jurisdiction, the imminent CSZ earthquake, a community unaware of the threats and hazards and or untrained in emergency preparedness, and limited resource challenges. The District recognizes the challenge a significant disaster like a CSZ earthquake will have on response and recovery efforts, as well as a community unprepared for a disaster of this magnitude. In the Oregon Resilience Plan, Oregon Seismic Safety Policy Advisory Commission (OSSPAC) (2013) state,

"We cannot avoid the future earthquake, but we can choose either a future in which the earthquake results in grim damage and losses and a society diminished for a generation, or a future in which the earthquake is a manageable disaster without lasting impact" (p. 1).

Disasters will happen, and due to the infrequency of significant disasters in the Banks area, it is even more critical for the community to be ready. The graph below, Problem Analysis is illustrated in Figure 3.

Figure 3: Problem Analysis



Project Objectives

After reviewing the Districts challenges, the following objectives are recommended to improve the District resource capabilities to fill in the gaps in the response and recovery process during a significant crisis as well as prepare the community for a disaster. For more details on the recommended implementation plan, see Appendix A: Project Plan (attached).

1. Engage the District community members in disaster preparedness.
2. Establish a partnership between the District and community to help solve the resource challenge.
3. Ensure that community members are trained and ready for disasters.

The Criteria

The District realizes the importance of a well-trained volunteer firefighter force that is committed to serving and protecting the communities of Banks, Buxton, Manning, and Timber (Banks Fire District 13, 2017). Through assessing the District challenges of limited resources during a significant event like a CSZ, and citizens unengaged in emergency preparedness, the following criterion determine the best solution to help prepare the community for disaster:

- Must provide value and a positive impact on the community.
- Program financing must come from alternate sources such as grants, donations, and fundraising.
- Volunteer firefighters must be allowed to train CERT members.
- Must increase emergency awareness/preparedness amongst community members.
- Provide surge capacity to the Banks Fire District.

Analyzing the Solutions

There are at least three potential options that could help accomplish the desired outcome in creating a culture of emergency and disaster preparedness between the community and the District. All three options listed below do have advantages and disadvantages, which are listed below in Figure 4.

Option One: *Maintain the Status Quo.* The District maintains existing operational procedures adding no additional costs to the District. However, this option does not help the District limited resource/personnel problem, and the community remains untrained and unprepared, which will not help the District in a major crisis event.

Option Two: *Establish a CERT program in the Banks Fire District.*

The Community Emergency Response Team (CERT) promotes and engages community-wide disaster and emergency preparedness and trains volunteer community members in "basic disaster response skills, fire safety, light search and rescue, team organization," and "disaster medical operations" (Department of Homeland Security (DHS), n.d.). In addition, the CERT team could assist within non-emergency activities such as the Fireman's Breakfast, Night Out activity, and other tasks, which falls in line with one of the District's Strategic Plan priorities to "Promote community involvement with the District" (Banks Fire District 13, 2017, p. 8). Once CERT volunteers become fully trained, the CERT team will be prepared to respond and assist in any emergency crisis, when the District activates or calls on CERT for assistance. This option suggests that the community would benefit from a CERT program. In the Introduction to Emergency Management, Haddow, Bullock, & Coppola (2017) states, CERT offers "the skills and knowledge to provide immediate assistance to victims in their area and collect disaster intelligence that will assist professional responders with prioritizing and allocating resources following a disaster" (p. 142-43).

Option Three: *Establish a CERT Regional Partnership in rural Washington County.*

The District collaborates with the cities of North Plains, Forest Grove, and Cornelius to create a regional CERT team for rural Washington County. This option could increase the overall CERT volunteer base within each community and allows for greater community engagement and emergency preparedness amongst all communities. This option suggests a partnership extending

outside the District jurisdiction and would require coordination and collaboration amongst sponsor agencies in each city. The Evaluations of Options is illustrated in Figure 4.

Figure 4. *Evaluation of Options.*

Options	Pros	Cons
Option 1: Maintain the Status Quo.	<ul style="list-style-type: none"> • No additional costs to District. 	<ul style="list-style-type: none"> • Limited resources/personnel to respond to incidents. • The community remains unprepared in emergency preparedness.
Option 2: Establish CERT program in the Banks Fire District.	<ul style="list-style-type: none"> • Provides vital service to the District and community before and after disasters. • Promotes and engages community-wide disaster and emergency preparedness. • Improves Districts disaster response time by allowing the District to focus on more complex tasks. • Allows flexibility to form the CERT program to tailor to specific needs of community. • Option for Federal grant programs to offset CERT program costs. • Allows for extended participation in non-emergency activities. • Online CERT Train-the-trainer courses supplied by FEMA. 	<ul style="list-style-type: none"> • Supply/resource costs. • Requires time and commitment • Requires a sponsoring agency, such as a fire station. • May need to hire a Grant funded CERT program volunteer coordinator. • Requires online CERT train-the-trainer courses to be completed by before program implementation. • Community member seeking CERT training forced to join other teams outside District jurisdiction. • District does not solve resource limitations during active disaster response.
Option 3: Establish CERT Regional Team Partnership in rural Washington County.	<ul style="list-style-type: none"> • Encourage community's partnership outside District jurisdiction to build a Regional CERT Team to increase collaboration and coordination in regional disaster response capabilities. • Share resources and costs. • Allows for a greater CERT volunteer base and community engagement opportunities. 	<ul style="list-style-type: none"> • May need to hire multiple CERT volunteer coordinators. • Requires time and commitment • Requires a sponsoring agency.

Recommendation

Option Two: Establish a CERT program in the Banks Fire District

The recommended course of action to improve the Banks community emergency preparedness/response capabilities is Option Two. Through research obtained in meetings and interviews with the Banks Fire District, Oregon State Resiliency Officer, Washington County Emergency Manager, Beaverton Citizens Corps, Tigard CERT, Vancouver Fire District CERT, Emergency Volunteer Corps of Nehalem Bay (NVCNB), as well as observe the Banks earthquake 2019 tabletop discussion, Option Two is the best option to help the District in response and recovery efforts during a significant event, as well as urging the community to get involved in emergency preparedness activities. The Banks earthquake 2019 tabletop discussion identified several gaps in existing emergency plans as well as opened the discussion amongst the Bank's stakeholders to establish a CERT team in the Banks area (Gleaves Consulting, 2019). Some of the gaps identified, the CERT team, when trained, could assist with during the earthquake response and recovery phase, including "organize spontaneous volunteers," and assist other Banks stakeholders in "prioritizing and allocating resources following a disaster" (Haddow et al., 2017, p. 143).

While Option Two requires a sponsoring agency, time, resources, and commitment, there are federal grant funds available to offset the program costs. For more details on timelines for grants, see Appendix A: Project Plan (attached). Besides federal grant money, other options could also help offset costs. For instance, Vancouver Fire District CERT volunteers pay a \$35 fee to offset background checks, and some CERT volunteer supplies (Blackwood, 2019).

Developing and implementing a CERT team falls directly in line with this project proposal desired outcome in which the Banks community is ready for threats and hazards, empowered to care for and stabilize themselves, their families, and neighbors until first responders arrive. CERT actively engages the community in a culture of emergency and disaster preparedness as well as assist first responders in response and recovery operations during a disaster or emergency crisis. This option creates a stronger relationship between the community and the District, which is in line with the District Strategic plans. Carin Grover Program Manager for Tigard CERT sums it up best. Grover (2019) states,

“The smaller and more rural the community, the more they will need to rely on each other in times of need. Everyone has a place to fill in community preparedness and resiliency.” Furthermore, “the better prepared/trained the community is, the stronger and more resilient they will be in handling any emergency or disaster, and just as important, the better the recovery process will go.”

Next Steps

The threat of the CSZ is real, and the Banks community must prepare now. The OSSPAC (2013) states, “Resilience gaps of this magnitude reveal a harsh truth: a policy of business, as usual, implies a post-earthquake future that could consist of decades of economic and population decline” (p. xx). The District understands that in a major disaster, the Banks community will face many challenges and will need to adopt additional emergency response capabilities. Building a community that is resilient to disasters or emergencies will take considerable effort. The District will need to locate additional resources to be able to implement the plan to develop a CERT team in Banks, for example, hiring a volunteer coordinator or consultant to oversee project

implementation and CERT program. Currently, community members wishing to join a CERT team must seek CERT programs outside the District jurisdiction. While this is beneficial for the community members to learn and train in emergency preparedness, it does not promote emergency preparedness amongst the community. In a disaster setting, CERT members established in CERT programs outside of Banks must respond to the assigned jurisdiction.

The following next steps are a roadmap on how the District and the Banks community can ensure a “post-earthquake future” by becoming better prepared for disaster (OSSPAC, 2013, p. xx). For more detail on the recommended next steps, see Appendix A: Project Plan (attached):

1. Obtain project approval to establish a CERT program in the Banks Fire District.
2. Obtain Federal Grants for CERT Program.
3. Establish CERT instructors.
4. Begin the CERT program.

Conclusion

The City of Banks and surrounding communities are unique. The community counts on the District to deliver on the Districts promise "to meet the emergency needs of the community" (Banks Fire District, 2017). Rural communities like Banks rely heavily on their first responders, especially in the time of need. Because of the rural setting of Banks and surrounding communities, a significant disaster like CSZ will no doubt overwhelm the District, ultimately leaving the community in chaos, creating more challenges for the District. This project proposal offers a solution to educate the community in emergency preparedness and engage its citizens as "vital partners" in the Districts response and recovery capabilities during an emergency crisis by empowering the community to prepare, respond, and recover from a disaster (Federal Emergency

Management Agency (FEMA), 2011). If a significant disaster should strike, the community could take care of themselves, their families, and neighbors until first responders arrive, ultimately helping the community to recover quickly. Haddow et al. (2017) state, "There is no country, no community, and no person immune to the impacts of disasters. Disasters, however, can be and have been prepared for, responded to, and recovered from," especially if the community is fully prepared and ready for disaster (p. xvii).

Note from the Author

Through my studies at Concordia University in Homeland Security and Emergency Management, I have gained knowledge of the discipline of Emergency Management and its principles to mitigate, prepare, respond, and recover. Natural disasters such as the CSZ are not going to go away, they will always exist, and it is why the community of Banks should engage in emergency preparedness to reduce the negative impact and outcomes to life, property, and business. Through many interviews with CERT program managers and volunteer coordinators, I am amazed at how involved community members are and how committed they are to the districts they affiliate with, as well as the first responders who appreciated the time and commitment the CERT volunteers provide them. Even though I am a resident of Banks, I had to look elsewhere to join a CERT team. The closest CERT team to Banks is Hillsboro CERT. Why are other cities participating in CERT and not Banks? I chose CERT not only to prepare for a disaster/emergency, but to be educated and trained in life-saving skills so that I can take care of myself, family, and neighbors until first responders arrive. The purpose of this project proposal is to stress the importance of why a program like CERT could benefit Banks residents by engaging them in emergency preparedness, so when disasters like the CSZ strike, the community will be ready to respond and recover quickly.

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Appendix A.

Banks Community Emergency Response Team (CERT): Project Proposal

Project Goal: The goal of this project is to propose a solution based on the research conducted for the Banks Fire District to consider a whole community emergency preparedness program, and to expand on existing emergency services.

Background: The City of Banks and surrounding areas are at risk of many threats and hazards that have the potential to cause loss of life and infrastructure in the community. During a catastrophic event, such as a significant earthquake, because of the rural nature in Banks, the District will face having to make strategic and tactical decisions due to their limited resources. It will need additional assistance to help with the response and recovery phases. Since events like earthquakes are regional, neighboring cities will also face the same challenges as the District, further putting a strain on disaster response and recovery efforts in the District and beyond.

Project Objectives

1. Engage the District community members in disaster preparedness.

- Develop a public disaster/emergency preparedness program to raise awareness and build a relationship with the District and community to inspire community engagement with all stakeholders, i.e., schools, business, faith-based communities.
- Distribute CERT/emergency preparedness information to all community partners to generate interest for a CERT team (social media, pamphlets, door to door).

- Develop a program within Banks Schools District to promote early education in disaster/emergency preparedness.
- Promote CERT at District open-house and pancake breakfast, Night Out, and other community events.
- Launch survey to see if there is public interest for CERT.

2. Establish a partnership between the District and community to help solve the resource challenge.

- Develop a plan to establish CERT in the Banks to help build resiliency in the District.
- Establish a CERT volunteer coordinator position within the District to implement and manage the CERT program.
- Coordinate with Citizen Corps Working Group (CCWG) to assist with Grant funding for the CERT program, as well as private sector grant funding options and or matching grants.
- Establish instructors to train in FEMA train-the-trainer courses to teach CERT team volunteer classes once the program is operational.

3. Ensure community members are trained and ready for disasters

- Identify community members wishing to become prepared for disaster encourage and to join CERT.
- Recruit and train community members in emergency preparedness and response.

Deliverables, Tactics, and Timeline:

1. Obtain project approval to establish a CERT program in the Banks Fire District.

- 1.1 Submit the project proposal to the project sponsor – Dec. 2019
- 1.2 Meet with the Banks Fire District to discuss project implementation - Jan. 2020
- 1.3 Launch campaign to promote CERT and emergency preparedness – Feb. 2020
- 1.4 Launch survey to collect data on public interest – Fireman’s Breakfast 2020.

2. Obtain Federal Grants for CERT Program.

- 2.1. Coordinate with Citizens Corps to assist with Homeland Security Grant Program (HSGP) / Urban Areas Security Initiative (USAI) grants – **Immediately**
- 2.2. Submit HSGP grant submission requirement due date – Jan. 2020.
- 2.3. Submit the USAI grant submission requirement due date - Dec. 2020.

3. Establish CERT instructors.

- 3.1. CERT first responders acquired (at least two) to teach CERT classes.
- 3.2. Instructors trained in all online train-the-trainer courses – Dec. 2021.

4. Begin the CERT program.

- 4.1. Launch CERT applications for citizens to apply for CERT program – Jan. 2022
- 4.2. Begin CERT training – Summer 2022.
- 4.3. Fully operational CERT program by - 2023.