

Natural Disaster Animal Evacuation  
A Senior Project

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## Introduction

In the past 20 years there have been massive natural disasters that have devastated communities and states across America. In Southern California and on the Central Coast, there have been widespread fires with the largest fires being: in 2003, the Cedar Fire affected San Diego, in 2007, the Zaca Fire impacted Santa Barbara, and the Witch Fire devastated San Diego, and in 2017, the Thomas Fire affected Ventura County (Cal Fire, 2018).

Although Cal Fire has information on helping lower the impact of a fire on your animals and property, there is currently no protocol or general plan of action for evacuating livestock animals from personal properties, large farms or horse stables (Cal Fire, 2018). As a result, many animals have been killed by these fires, or if they were able to be evacuated, the owners were not able to locate them after the madness was over.

This project will address a critical need for emergency evacuation centers hosted by their local FFA chapters and school farms. The author will research and survey the viability of utilizing FFA programs to serve their communities in times of crisis. The goal is to provide an action plan for evacuating these animals before these disasters hit, so that many lives could be saved, and pets reunited with their owners.

## Background

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education. FFA membership today is comprised of 653,359 student members in grades seven through 12 who belong to one of 8,568 local FFA chapters throughout the United States, Puerto Rico and the U.S. Virgin Islands, according to the National FFA Organization.

FFA members are required to do community service to get grades in the FFA portion of their agricultural classes. Utilizing school farms as evacuation refuges for their community's livestock could be considered community service. If this protocol were able to be run by the students in the FFA it would teach them responsibility, communication skills, and local laws. They would work closely with local fire departments and people in the community to ensure correct record keeping and track of people's animals.

During the Thomas Fire (2017), Ventura County Animal Services received more than 1,000 displaced animals, of which, 426 were placed at the Camarillo Animal Shelter (doubling their capacity), another 315 domestic animals, 215 horses, and 47 other animals were placed at the Ventura County Fairgrounds temporarily (Curly, 2017). There is no need for more animals to go missing or die during these fires anymore, they need to have a secure place, and a backup evacuation center, to be placed into safety and to be accounted for.

## Methodology

The research reported through this project embodies both quantitative and qualitative data and perspectives on putting a protocol in order that would bring high school FFA programs together with their community in the event of a natural disaster.

The school farms would be places of refuge for people in the community's personal livestock and other animals that are evacuated. The project was created because the author had been in contact with local agriculture personnel in San Diego County, and the need for a protocol was brought into light.

The study took place through a Google Form survey sent out over email. There were 66 different high school agriculture teachers who received the survey invitation within central and southern California. The author chose to survey most San Diego Section FFA programs because she is from that area and experienced the wildfires. The other schools were chosen mostly randomly from a list of FFA programs in the lower half of the California.

The author created the survey questions based on personal experience with livestock evacuation issues due to natural disasters. The data were collected through the Google Form survey replies by individual questions. The data were then analyzed using strategies including categorizing answers by interview question and by personal observation of the answers. These were used to see what parts of the protocol would be necessary, possible, and which were determined to not be viable community and school farm decisions.

### Results

After sending out a Google Form survey to 66 high school agriculture teachers from southern and central coastal California, 12 replies were received. From this data collected, 91.7% of those surveyed said that their community had been affected by some type of natural disaster, and 75% knew where community members had evacuated their animals. Although 66% of those surveyed said their program has a farm that can house animals, 75% (of that 66%) said that their farm is not on the high school's campus.

Additionally, 75% of the teachers surveyed stated that if the need was to arise, they would allow community members to evacuate their livestock animals to the school's farm (on or off campus), only 8% said no, they would not allow it, and the other 16% did not know. Some of the possible challenges that these individuals brought up included not having enough room to house the animals, not enough food, water, resources, and the aspect of liability.

When the teachers were asked if they believed FFA students would be able to keep track of this program, if it were to be implemented, 75% believed the students could do it if they were properly trained. The data is slightly ambiguous at this point, and it seems that this protocol would have to be implemented on a case by case basis, catering to each individual high school's availability of resources and rules.

### Recommendations

If a protocol were to be created and implemented, there would need to be more information than is known at this time. Each individual high school would need to be aware of the local laws and regulations that pertain to housing animals on public land. There would need to be information from the local fire department's regulations regarding letting authorized

people, that would be helping with evacuating animals, be allowed into areas that are technically blocked off to the public.

Most likely, each school would need to have its own “survey” of some sort where they asked the community if they believed this protocol would be helpful and if there were people willing to volunteer their time and vehicles/trailers for transporting animals from personal homes to the school farms.

The author also recommends tailoring the protocol to individual areas and schools so that they would have a better understanding of their own laws and involvement. If the author was to do the survey again in the same fashion as before, they would send out the survey to every agriculture teacher in the state of California. They would also have been more mindful of when they sent out the survey via email, seeing as the first time around it was sent out during a time of peak FFA events and competitions, resulting in less respondents than ideal.

Another possibility is having an incentive for agriculture teachers to complete the survey such as free small merchandise from the Cal Poly Agricultural Education and Communication Department, which is something that would require department collaboration and approval through the university Internal Review Board. The author recommends this project be moved forward with a general protocol example to be shared with high school agricultural schools and they would be encourage to adapt it to their county codes, regulations and community needs.

## References

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