MOFD and Rescue One Foundation are offering a $500 scholarship writing contest on the following topic: Innovate uses of existing technology to increase the effectiveness of emergency evacuation notifications in MOFD’s jurisdiction.

**Background:** The areas protected by the Moraga-Orinda Fire District (MOFD) are known for their natural beauty and semi-rural character. While these attributes make this an attractive place to live, they also contribute to an environment where the threat of a major wildfire is present during the fall months. Large fires have burned in the East Bay Hills in 1923 and 1991 resulting in significant loss of life and property. These fires were characterized by very rapid, wind driven spread over a relatively short period in conjunction with Diablo Winds.

**Existing System:** In the event of a major fire, MOFD will respond fire suppression resources to fight the fire and attempt to limit its spread. Depending on the size of the fire and speed at which it is moving, an evacuation of portions of the community may be ordered using evacuation zones that have been developed in conjunction with the Town of Moraga [https://police.moraga.ca.us/documents/Evacuation%20Plan%20Zones.pdf](https://police.moraga.ca.us/documents/Evacuation%20Plan%20Zones.pdf) and City of Orinda [https://cityoforinda.org/398/Orinda-Evacuation-Zones](https://cityoforinda.org/398/Orinda-Evacuation-Zones). By state law, the authority to order an evacuation is granted to the police department and they will notify residents of this order through The Community Warning System [https://cwsalerts.com/about/](https://cwsalerts.com/about/). This is an award winning opt-in system that all residents should register for at [https://cwsalerts.com/](https://cwsalerts.com/).

The CWS utilizes a number of methods to contact residents, but relies on an opt-in system to associate mobile phone numbers and emails with physical addresses. Currently, 38% of residents in Moraga and Orinda, and less than 10% of residents county wide are registered for the system. CWS staff and local government have been involved in public outreach to increase participation in the system and these efforts are ongoing.

**Evacuation Scenarios:** Most evacuation scenarios involve a partial evacuation due to limited street capacity and the concern that a mass evacuation notice would create major traffic delays and put residents at increased risk. Limited evacuations are prioritized and time phased as a design feature to contact those closest to the threat first before streets become congested.

The current contact methods for limited evacuations in use in our area are:

1. Phone call to a landline if one is present in the home.
2. Phone call to a mobile phone number if the resident has registered for CWS notifications.
3. Text to a mobile phone number if the resident has registered for CWS notifications.
4. Email if the resident has registered for CWS notifications.
The current contact methods for a community wide mass evacuation in use in our area are:

1. Weather radios
2. Emergency Alert System
3. Wireless Emergency Alerts

Assumptions: For the purpose of this contest, submissions for this contest should focus on limited evacuations during periods when electrical power is available and wireless networks are functioning. Proposed solutions must include the ability to contact selected sub-portions of the community with a high degree of accuracy.

Existing mobile phone based systems have decreased reliability at night as many residents have their phones on silent or do not disturb mode and notifications go straight to voicemail or are not read.

The purpose of this essay contest is to identify new and innovative ways to contact residents in the event of an evacuation. Creative ideas are encouraged and MOFD appreciates your participation in this contest.