



Moraga-Orinda Fire District

TO: Board of Directors
FROM: David Winnacker, Fire Chief
DATE: February 20, 2019
SUBJECT: Item 9.7 - MOFD Wildfire Prevention Strategic Plan

Introduction

Large portions of MOFD's jurisdiction lie within recognized High and Very High Wildfire Hazard Severity Zones. As a result of topography, infrastructure, weather patterns, and the systematic exclusion of fire from this area for over 100 years, there is no simple solution to the problem of reducing the risk of catastrophic wildfire. Recognizing this fact, MOFD is committed to a sustained, multidisciplinary effort organized along seven lines of effort over the next five years. This effort will require engagement by all elements of MOFD and key partner agencies as well as the community as a whole. This effort is designed to be perpetual as all work completed will require maintenance to sustain in out years.

Lines of Effort

1. External fuels mitigation projects
2. Internal fuels mitigation projects
3. Wildfire preplanning
4. Evacuation planning
5. Building code updates
6. Community outreach and education
7. Early detection and notification systems

Line of Effort #1: External Fuels Mitigation Projects (Fuels Mitigation Manager)

In partnership with EBMUD and EBRPD, MOFD will create a fuel break that largely encircles the district in order to reduce the risk of regional wildfire spreading into populated areas. This effort will build upon the existing fire and paved road network to expand the 8-30' roads to fuel breaks up to 100' in width. Initial work will be conducted with hand crews and mechanical maceration in fuel models 2 and 6, and with prescribed fire in fuel models 1 and 3. Sustainment will be via the use of prescribed fire on a 3-5 year cycle in fuel model 2 and 6 and via the use of prescribed fire on an annual basis in fuel model 1 and 3. This use of prescribed fire aligns with the natural 3-5 year fire cycle that existed in this area prior to development and the implementation of modern fire suppression techniques.

MOFD will continue to aggressively pursue state and federal grant opportunities to fund this work and will partner with HOAs and large private landowners on the periphery of the district's

residential areas to ensure fuels work is coordinated and mutually supporting. Coordination with PG&E, County Roads, and CalTrans will ensure regional agencies are meeting their internal requirements and schedules within the district's boundaries.

Line of Effort #2: Internal Fuels Mitigation Projects (Fuels Mitigation Manager)

Recognizing that the perimeter fuel break will slow a ground fire but will not be effective against three dimensional fire spread propagated via ember cast, MOFD is committed to working with all parcel owners in the district to conduct fuels mitigation efforts to reduce the probability of spot fires by eliminating receptive fuel beds throughout the district and to increase the survivability profile of structures by complying with defensible space requirements. MOFD Ordinance 16-02 identifies the requirements for all parcels, but is poorly understood and enforcement efforts have been inconsistent. As a result, a significant investment in education and outreach is required to inform all parcel owners of their obligations. MOFD will fundamentally rethink the notification and outreach methods used to inform parcel owners of their fuel reduction requirements. Prioritized outreach, education, and enforcement will be conducted on the periphery and major evacuation routes. A second priority will be the mitigation of large undeveloped parcels inside the city and town limits. Efforts will be made to enroll neighborhoods in the FireWise program in order to sustain and document work completed. This LOE has significant overlaps with LOE #6.

Line of Effort #3: Wildfire Preplanning (Operations and Training Chiefs)

Given MOFD's small size and the potential for a large scale event that exceeds the capacity of on-duty resources, the district must be prepared to request and employ large numbers of mutual aid suppression resources during the first operational period. In order to meet the command and control requirements, MOFD will recruit, train, qualify, and maintain interested members to become CICCIS recognized Division Supervisors. These members will gain valuable experience through OCMA deployments that will build the requisite skills to rapidly employ mutual aid resources for a future fire in the MOFD jurisdiction. The preplanning process will include the designation of identified and marked division boundaries, associated communications plan, water supply, suppression objectives, and evacuation considerations. Understanding that responding agencies will not be familiar with MOFD's operational area, this LOE will focus on the development of internal leaders who will exercise command and control of incoming units to make the most efficient use of these resources during the initial attack stages of large fire.

Line of Effort #4: Evacuation Planning (Emergency Preparedness Manager)

Building upon the work done in partnership with Moraga and Orinda PD, MOFD will continue to refine evacuation plans to include notification, time phased evacuation orders, surface street capacity, and the identification of Temporary Refuge Areas in both North Orinda and Moraga. These plans will be captured in automated tools that will make near real time recommendations in the event of an evacuation. These efforts will be integrated with LOE #7.

Line of Effort #5: Fire Code Updates (Fire Marshal)

In partnership with the city of Orinda, Town of Moraga, and Contra Costa County, the Fire Marshal will develop a model code update for the next code adoption cycle to address the new reality of wildfire threat. This code will include requirements for all new construction and major remodels/additions to comply with ember resistant building standards, under eave sprinklers for all construction that meets the district's current interior sprinkler requirements, and other measures that are currently being developed.

Line of Effort #6: Community Outreach and Education (All)

Recognizing the community's interest in addressing the wildfire threat and the tremendous capacity latent within our population, the district will invest heavily in outreach and education to inform the populace of both the overarching plan and their role in its implementation. New and creative methods will be employed in recognition of the diverse nature of the community and varieties of ways they receive and process information. The overarching intent of this LOE specific to LOE #2 is that no resident will be cited until the district can demonstrate that they were aware of the requirements and given adequate time to bring their parcel into compliance. Education will be the primary driver of internal fuels mitigation efforts. This LOE will provide the connecting file that informs residents of the outputs of LOE #'s 2 and 4 in order to improve outcomes through awareness.

Line of Effort #7: Early Detection and Notification Systems (Fire Chief)

In an effort to leverage available technologies to reduce delays in wildfire reporting, increase location certainty, and automate the processing of evacuation decisions, the district is currently developing a Wildfire Information Processor (WIP) that includes the following components:

1. Early wildfire detection
2. Autonomous wildfire confirmation
3. Near real time wildfire spread modeling
4. Evacuation Decision Support Tool
 - a. Time phased evacuation recommendations shared via a common operating picture
 - b. Dynamic surface street capacity modeling
 - c. Google/Apple maps integration
 - d. Traffic optimization via contraflow traffic systems and traffic control recommendations

Budget

Budget requirements are largely met by the current budget and pending or potential grants.

RECOMMENDATION

- 1) Information Only