

Action 17:

Sprinkler System to Reduce Fire Risk

Description:

Install water pipes and sprinklers in the most fire prone areas of the study area which could be turned on during periods of high fire risk, if this technique can be proven effective. The concept of wetting vegetation during so-called “red flag” periods to reduce flammability, prevent ignitions, and increase response time is conceptually attractive as an alternative means to reduce fire risk with minimal biological impacts. However, the efficacy of this technique has yet to be extensively documented (Pepperdine University near Malibu has implemented such a system using reclaimed water) and most East Bay fire officials are skeptical that sprinklers would work as planned. This action is not recommended until such time as the technique is proven effective and affordable. If installed, a potential site for a sprinkler system would be on the eastern slope below ridge line homes.

Alternatively, sprinkler systems could be used to prevent ignitions along roadsides or other likely ignition sources. Wetting vegetation might be more effective for preventing ignitions than stopping conflagrations. However, this approach has not been tested or proven effective.

Implementation:

Monitor any research on this subject to determine if the effectiveness of the technique can be demonstrated. If no testing occurs, seek to initiate the research. If sprinkler systems are found to be effective, installation in the Corridor would likely be performed jointly by EBRPD, EBMUD, and the City of Oakland.

Fiscal Impacts:

Installation costs are estimated at \$25,000 to \$250,000, depending on the size of new storage facilities and new distribution system needed. Maintenance costs are estimated at \$1000 to \$2000 per year. The potential ex-

ists to reduce net costs by sharing infrastructure expenses with related efforts to increase firefighting water supplies and with local landowners desiring a new water hookup.

Anticipated results:

Reduce fire ignition threat and impede fire spread, thereby reducing fire threat to people and property; benefits to biological resources if a catastrophic fire is averted or if this action is implemented in place of other actions with greater impacts; potential increase in the availability of water to fight fires if water system is expanded to accommodate sprinklers.

Cautions:

This technique is still unproven; effectiveness and costs are largely unknown. Scenic impacts to residents and hikers should be minimized to the extent possible. Vegetation impacts due to increased moisture should be studied and minimized. Aggravation of landslide threat should be minimized. Water and maintenance requirements should be evaluated carefully. Biological impacts during the installation process should be minimized.