

# Rodent and Burrowing Animal Control

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*The Rural LMA Work Group (WG) was established in late 2012 with the purpose of serving as a forum for the California Central Valley Flood Control Association to identify problems that are unique to rural areas and seek solutions for inclusion in the Regional Flood Management Plans. The Rural LMA WG identified eleven topics of interest and has prepared a paper describing each topic from the perspective of the Rural LMA WG. These papers continue to be developed by the Rural LMA WG and are therefore subject to revision.*

## Topic Statement

The presence of rodents on levees is a historic and ongoing problem that poses a threat to levee integrity due to increased seepage penetration into the levee and interior and exterior erosion causing voids and levee stability issues via the burrows the rodents create.

## Description of Topic

It is imperative that every LMA has an aggressive rodent abatement and damage repair program. Diligent efforts to eradicate burrowing animals are a necessity, and eliminating them from an infested levee is extremely difficult. Control of these animals must be pursued frequently and persistently to ensure safety of the levee during both normal conditions and high water events.

Adequate rodent control is a two-part maintenance process of eradicating the rodents and properly filling their burrows. The more rodents in an area and the longer they have been there, the greater the threat due to greater loss of levee material and further increase in populations. Voids within the levees cannot be easily detected, and therefore, pose a significant risk to levee integrity and stability. Interpretation of environmental laws and regulations by various resource agencies can limit the periods during which poison bait can be utilized and other methods can be employed to control rodents. The implementation of these regulations may be in conflict with the approved and allowed proper use of the compounds being applied and often conflict with the optimal timing for successful control. Complete eradication of rodents is difficult. However, a well-managed eradication program vigorously applied throughout the year can keep populations and concentrations of rodents under reasonable control.

Coupled with aggressive rodent abatement, thorough repair of levees damaged by burrowing rodents is essential to minimize risks posed to levee integrity. Damage repair can be achieved by excavation and re-compaction of burrows, filling holes with grout slurry, and other comparable methods. Regardless of the method of rodent burrow damage repair, voids must be filled to minimize risk to levees. Past practices of simply dragging over the rodent holes to cover them is inadequate, and does not fill the voids left by rodent infestation. Potential endangered species act (both CESA and ESA) impacts during rodent burrow repair activities have been expressed as a concern by resource agencies.

## Relevance to the RFMP

Due to the importance of rodent abatement and damage repair on flood control facilities, the RFMP needs to reinforce the need for each LMA to properly address the problem. Additionally, there may be regulatory, regional or system wide actions that could provide assistance in implementation of more effective control. Examples of assistance include:

- Facilitation through environmental regulatory processes and relief from some limitations of how and when eradication actions can be performed.

- Funding to assist in the purchase and use of specialized equipment and services such as grouting machines, hiring licensed trappers and performing biological assessments to determine potential impacts to other desirable species as well as provide options for more effective control programs.
- Establish guidelines for habitat projects that could become a source of rodents. An example of this might be the development of habitat that could create a breeding area for beaver and muskrats that will migrate and take up residence in a levee.
- Establish procedures and guidelines for removal of rodent habitat and food sources.
- Establish funding and programs to work with local property owners, the farming community, and agricultural commissioners to coordinate rodent abatement activities on properties near the flood protection system, to minimize threats to levee integrity.

SUBJECT TO CHANGE