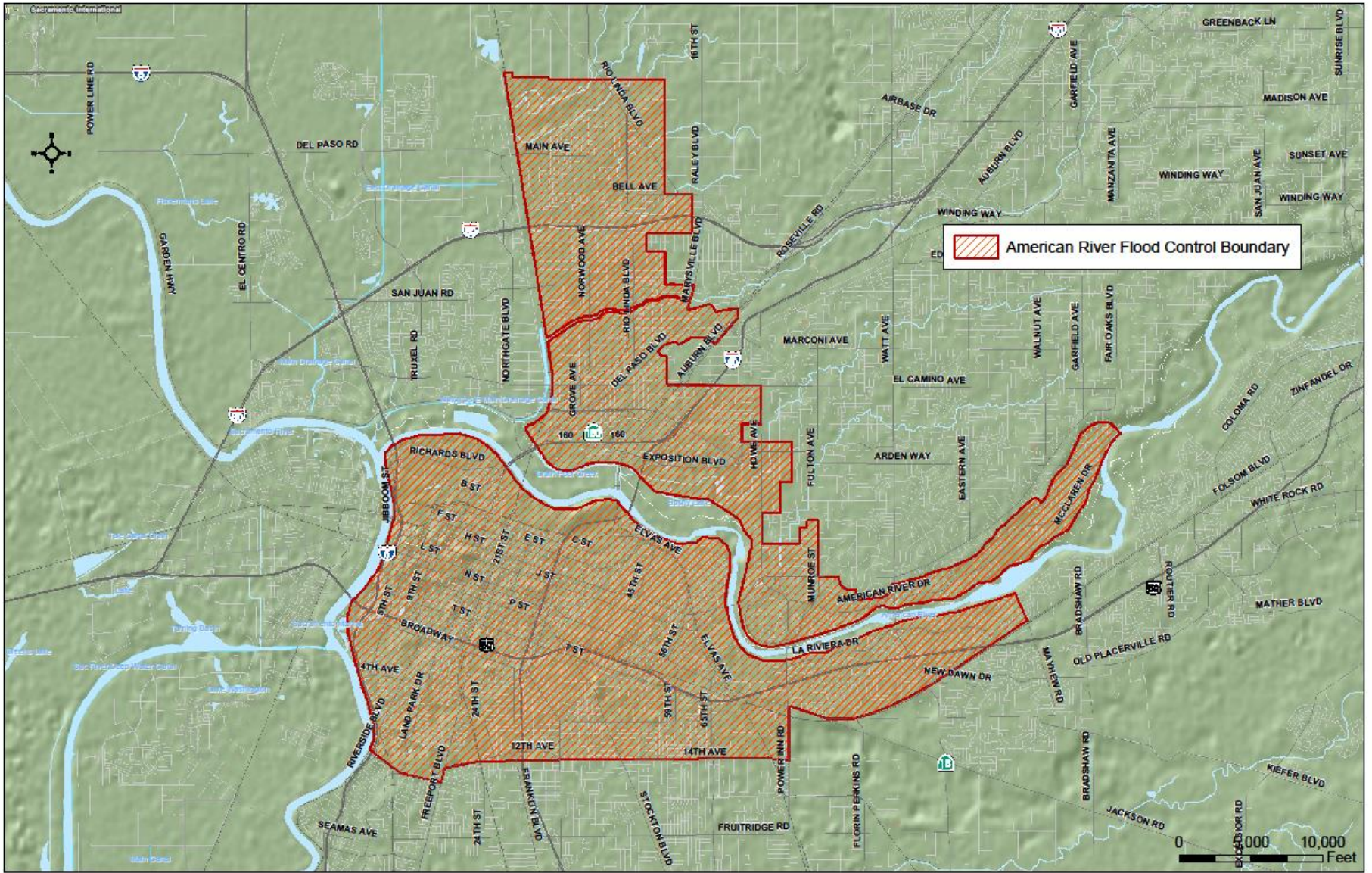
An aerial photograph of the American River in Sacramento, California. The river flows from the top right towards the bottom left. A bridge crosses the river in the middle ground. The surrounding area is a mix of dense green trees and open, sandy or gravelly banks. The sky is bright and clear.

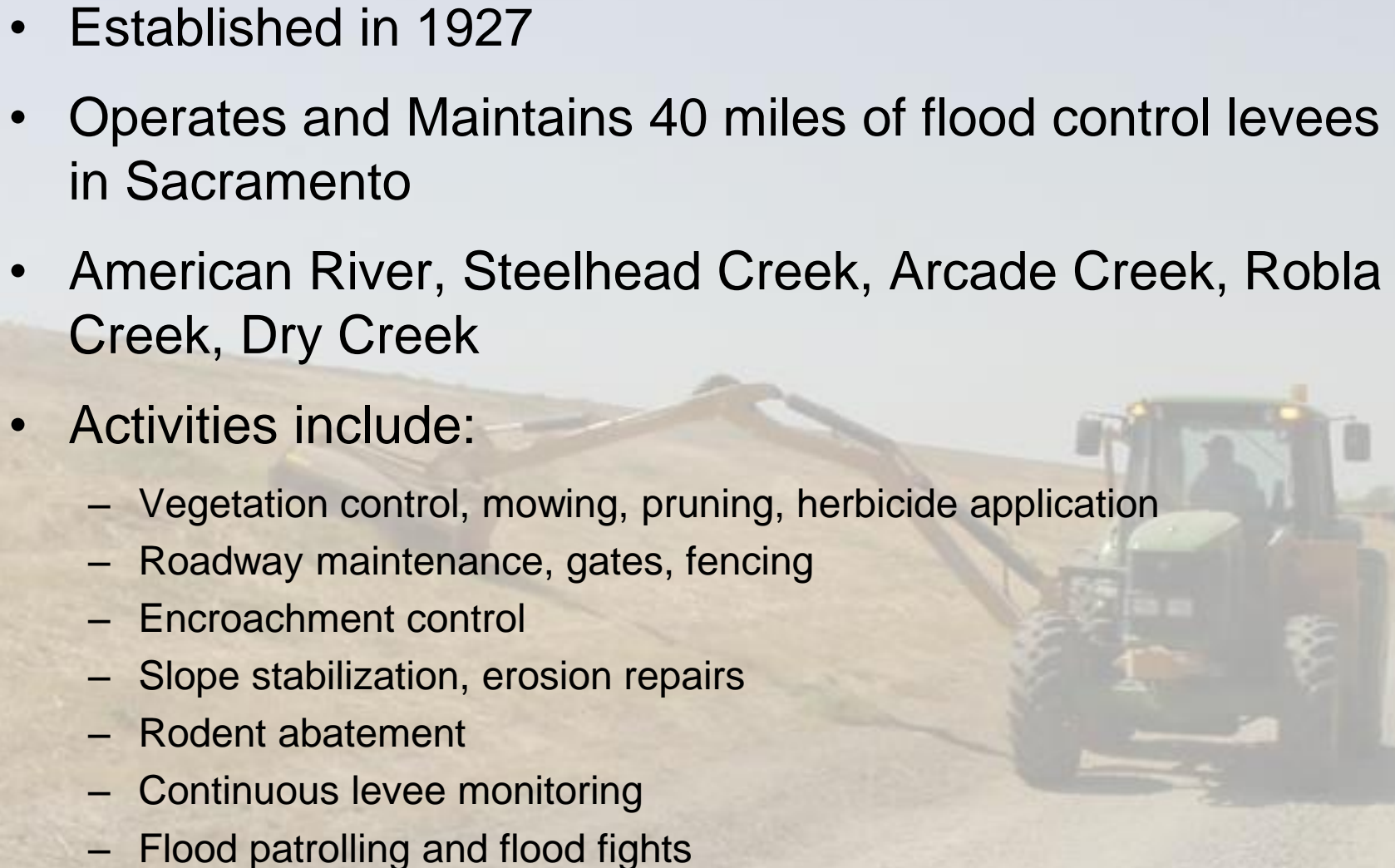
American River Flood Control District

Sacramento, CA

Tim Kerr, General Manager



American River Flood Control District

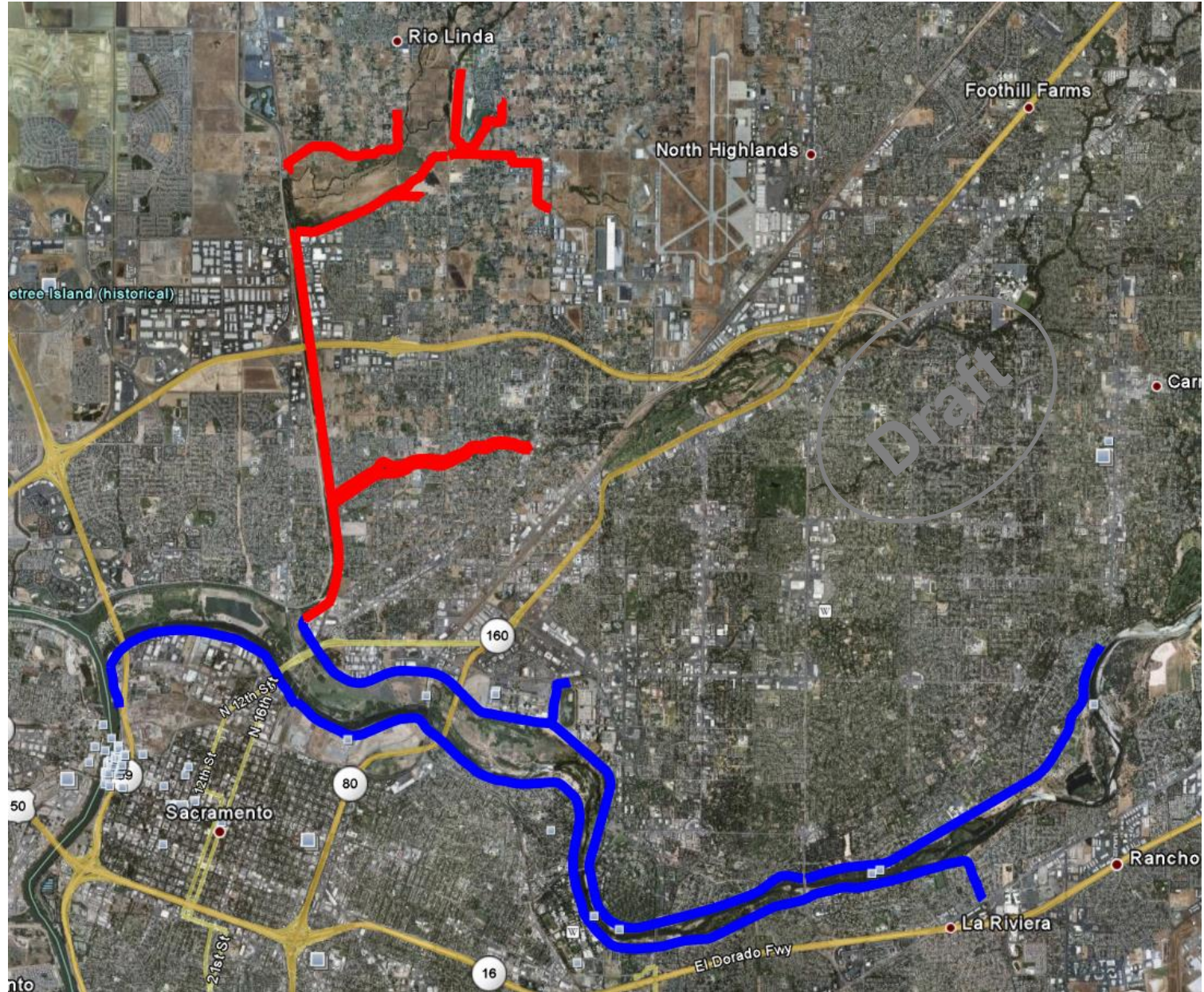
- Established in 1927
 - Operates and Maintains 40 miles of flood control levees in Sacramento
 - American River, Steelhead Creek, Arcade Creek, Robla Creek, Dry Creek
 - Activities include:
 - Vegetation control, mowing, pruning, herbicide application
 - Roadway maintenance, gates, fencing
 - Encroachment control
 - Slope stabilization, erosion repairs
 - Rodent abatement
 - Continuous levee monitoring
 - Flood patrolling and flood fights
- 

American River Flood Control District

- Major urban setting
- Immediately downstream of Folsom Reservoir
- Adjacent to the American River Parkway
- 1000 residential neighbors



ARFCD Levees



USACE 2010 Periodic Inspections

- 1 South Basin
- 3 North Basins

Results:

South Basin – American River/City of Sacramento/MA9

- Some unacceptable rated items downstream of ARFCD
- Collaborated to submit a Letter of Intent
- Submitted the Final System Wide Improvement Framework December 2017

3 North Basins – Minimally Acceptable

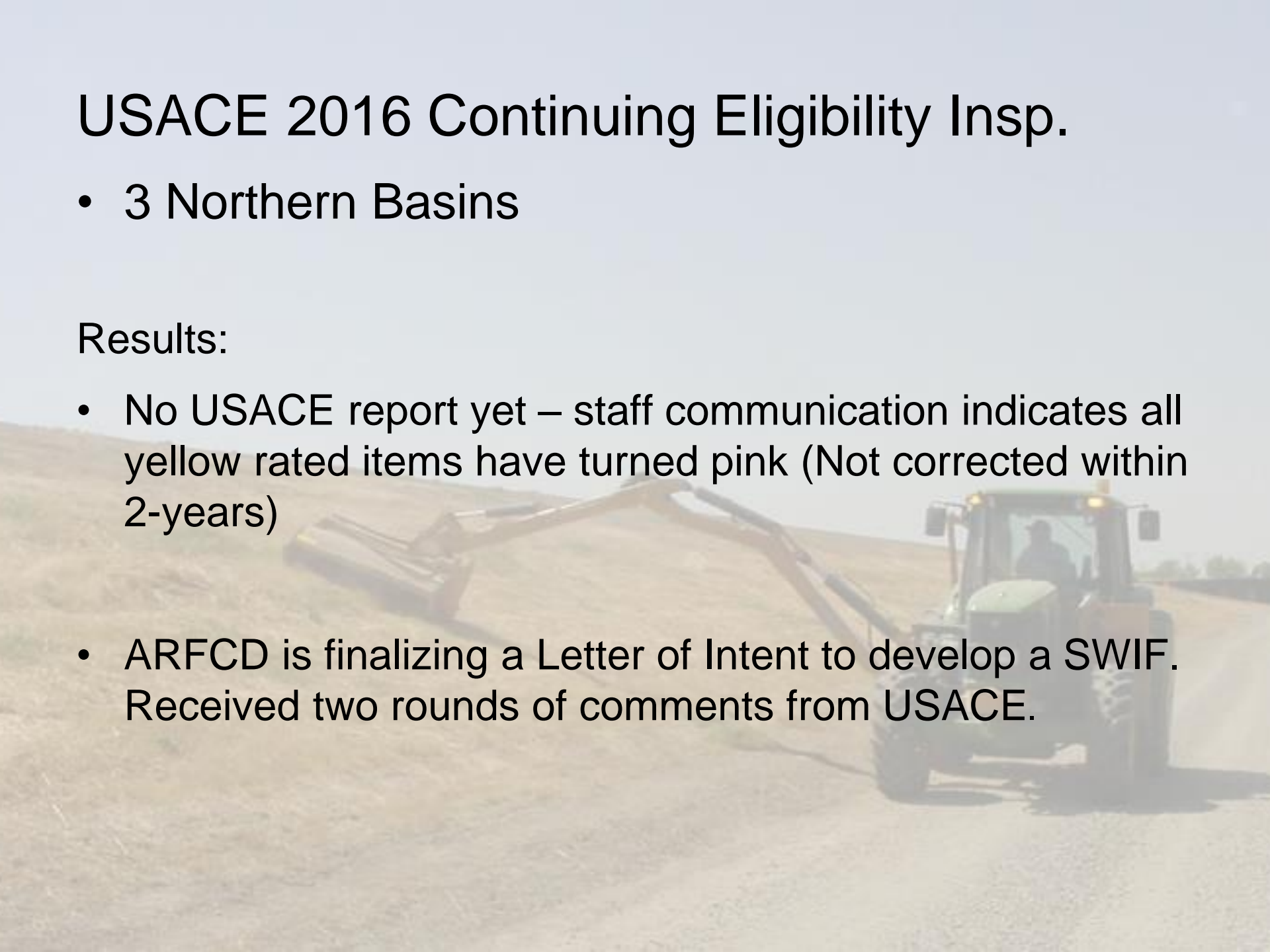


USACE 2016 Continuing Eligibility Insp.

- 3 Northern Basins

Results:

- No USACE report yet – staff communication indicates all yellow rated items have turned pink (Not corrected within 2-years)
- ARFCDD is finalizing a Letter of Intent to develop a SWIF. Received two rounds of comments from USACE.



Main Challenges for PL84-99 Eligibility

- Levee Pipe penetrations
- Rodent abatement
- Hazardous vegetation
- Encroachments
- Easements/Access
- Homeless camps



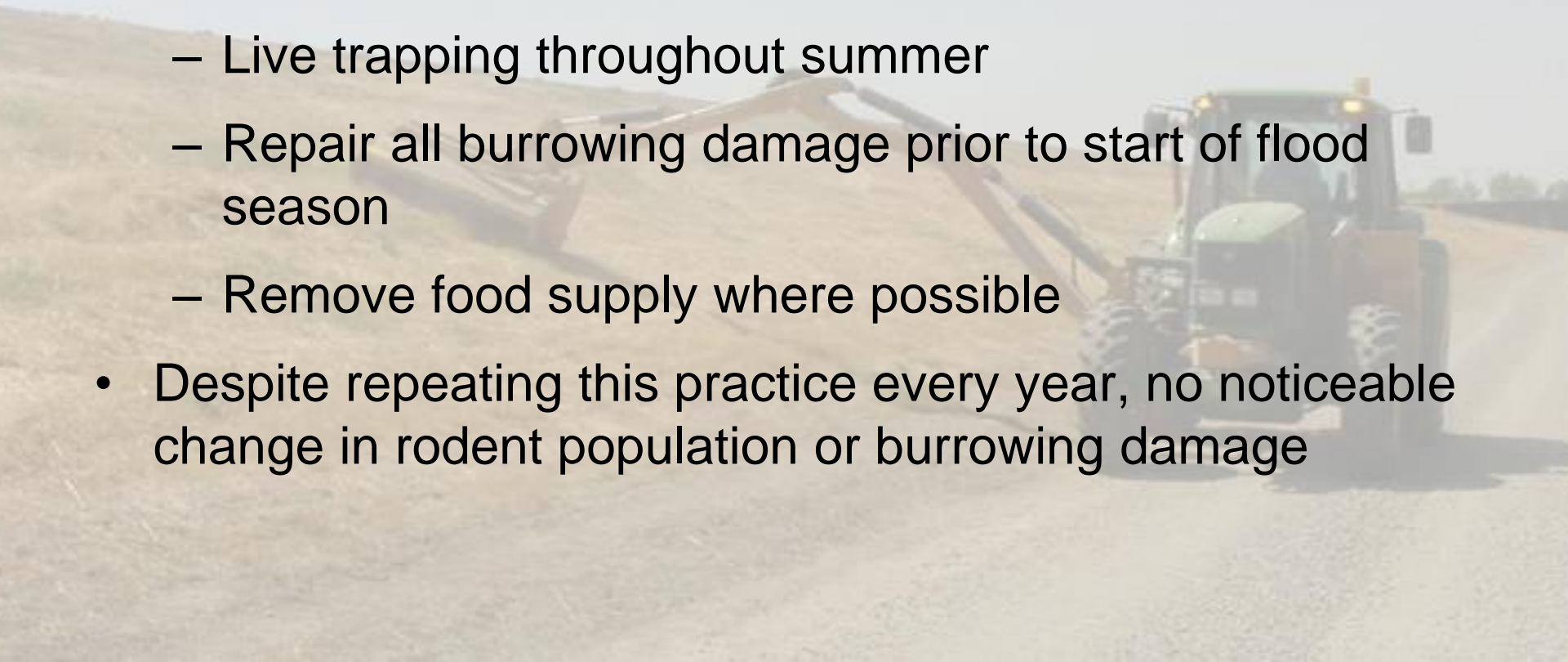
Levee Pipe Penetrations

- DWR Utility Crossing Inventory Program identified 189 'found' pipes in ARFCD
- USACE wants all pipe penetrations video inspected at least once every 5-years
- ARFCD doesn't own any active pipes
- All but one of the pipe owners are public entities:
 - City of Sacramento – interior drainage, water supply
 - County of Sacramento – interior drainage, sewer
 - Regional Sanitation – sewer
 - Sac Suburban Water District – water supply
 - CalTrans - drainage
 - PG&E – gas
- One private pipe penetration owner:
 - Kinder-Morgan – liquid petroleum

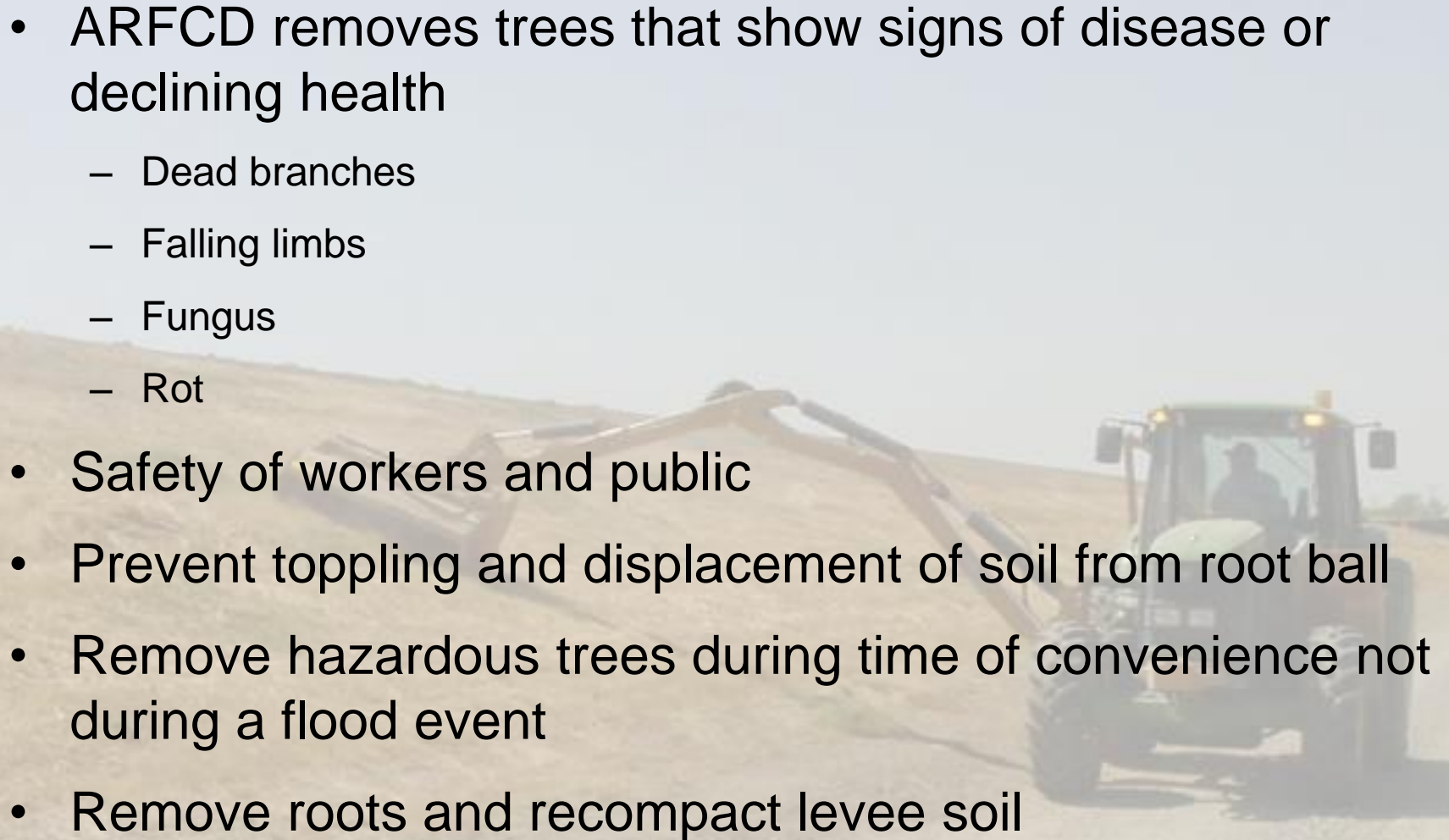


Rodent Abatement

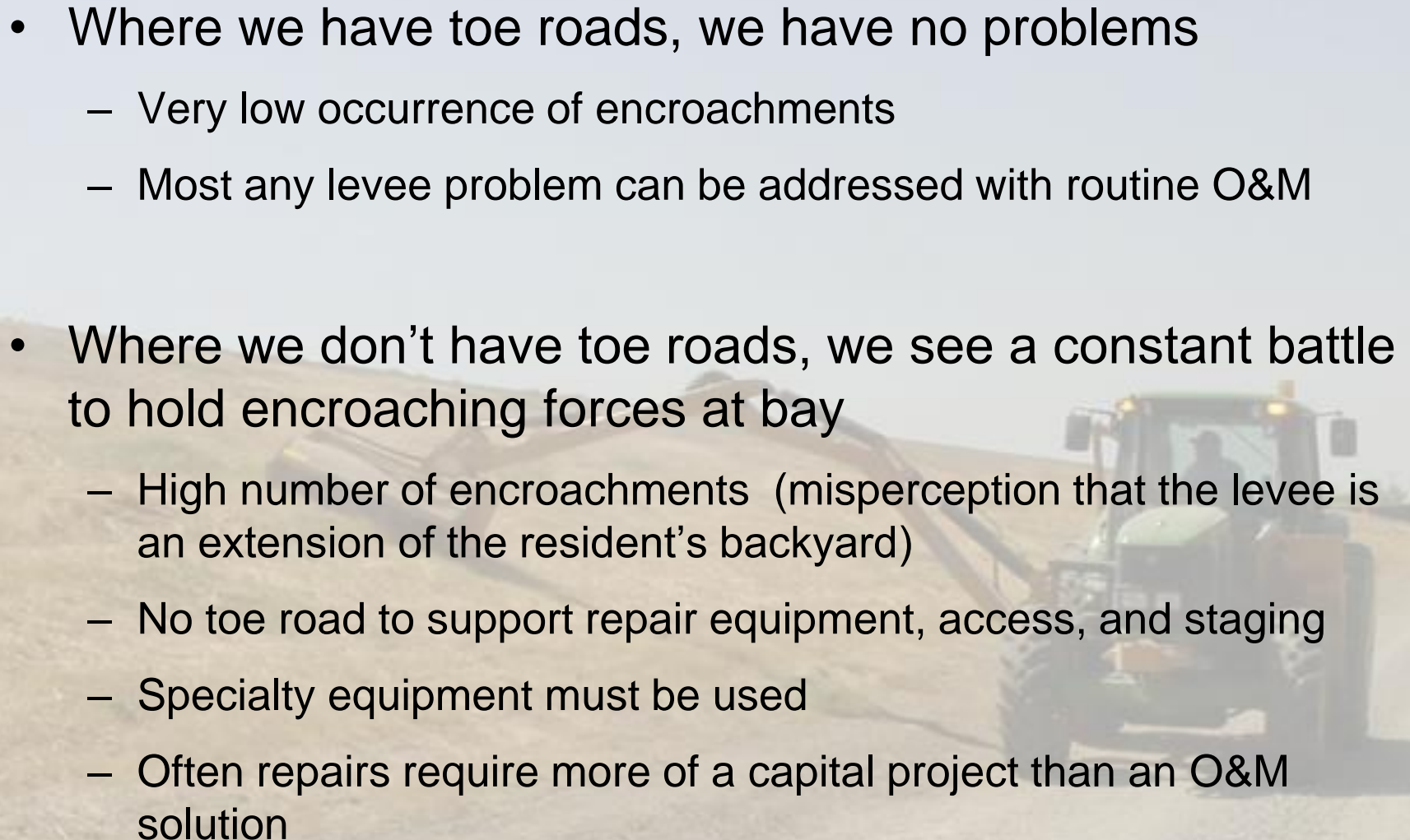
- Active rodent abatement program that complies with the USACE O&M Manual
 - Smoke Bombs in early spring
 - Pesticide bait stations throughout summer
 - Live trapping throughout summer
 - Repair all burrowing damage prior to start of flood season
 - Remove food supply where possible
- Despite repeating this practice every year, no noticeable change in rodent population or burrowing damage



Hazardous Vegetation

- ARFCD removes trees that show signs of disease or declining health
 - Dead branches
 - Falling limbs
 - Fungus
 - Rot
 - Safety of workers and public
 - Prevent toppling and displacement of soil from root ball
 - Remove hazardous trees during time of convenience not during a flood event
 - Remove roots and recompact levee soil
- 

Encroachments, Easement, Access

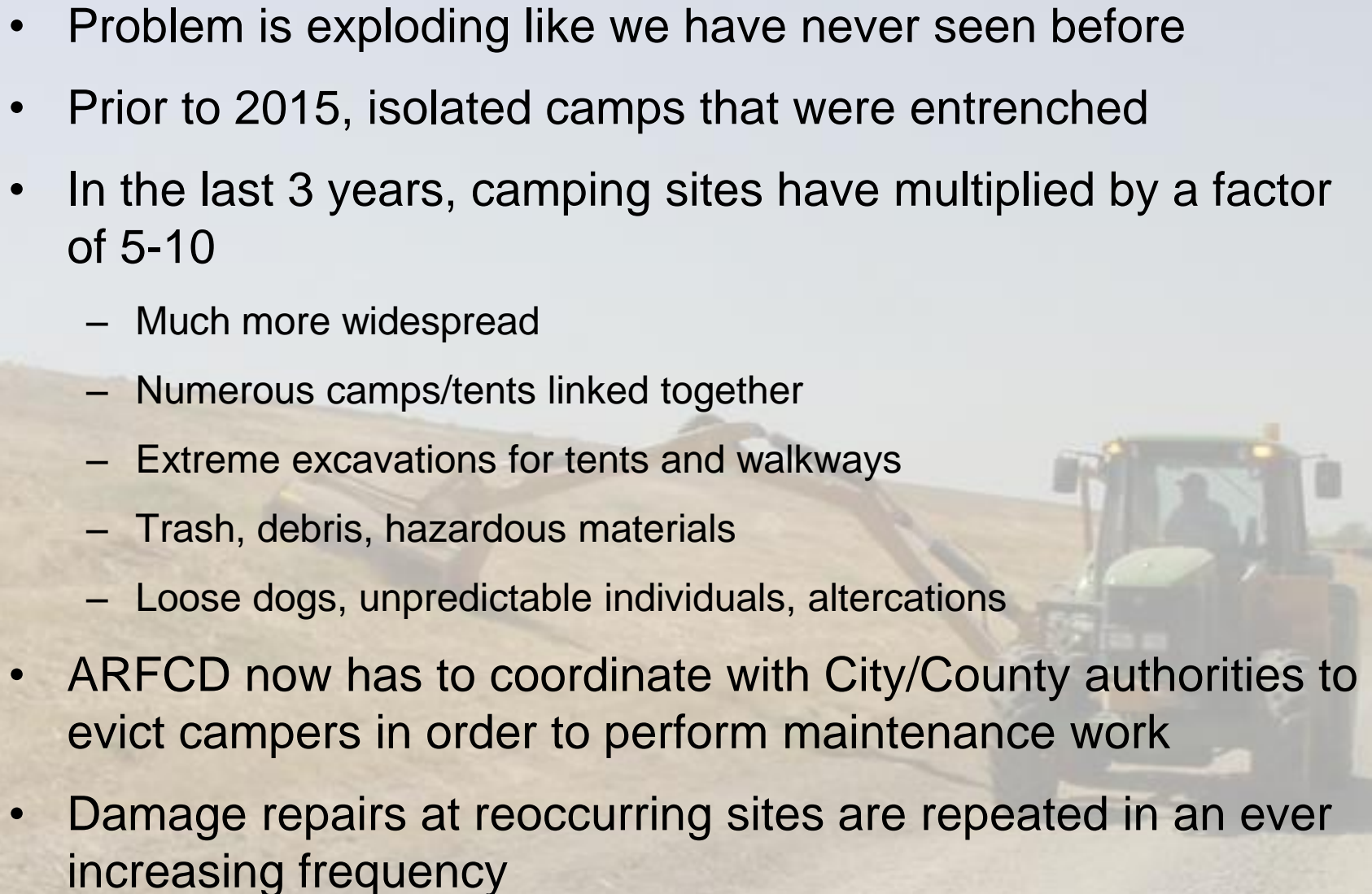
- Where we have toe roads, we have no problems
 - Very low occurrence of encroachments
 - Most any levee problem can be addressed with routine O&M
 - Where we don't have toe roads, we see a constant battle to hold encroaching forces at bay
 - High number of encroachments (misperception that the levee is an extension of the resident's backyard)
 - No toe road to support repair equipment, access, and staging
 - Specialty equipment must be used
 - Often repairs require more of a capital project than an O&M solution
- 

Landside Encroachments

- Decorative vegetation
- Landscaping and pavers
- Irrigation
- Vegetable gardens
- Terracing and retaining walls
- Fences outside the property line
- Stairs



Homeless Camps

- Problem is exploding like we have never seen before
 - Prior to 2015, isolated camps that were entrenched
 - In the last 3 years, camping sites have multiplied by a factor of 5-10
 - Much more widespread
 - Numerous camps/tents linked together
 - Extreme excavations for tents and walkways
 - Trash, debris, hazardous materials
 - Loose dogs, unpredictable individuals, altercations
 - ARFCD now has to coordinate with City/County authorities to evict campers in order to perform maintenance work
 - Damage repairs at reoccurring sites are repeated in an ever increasing frequency
- 

Questions

