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
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)

• ARFCD 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 recompress 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