



U.S. EPA - Region 9

SUPERFUND

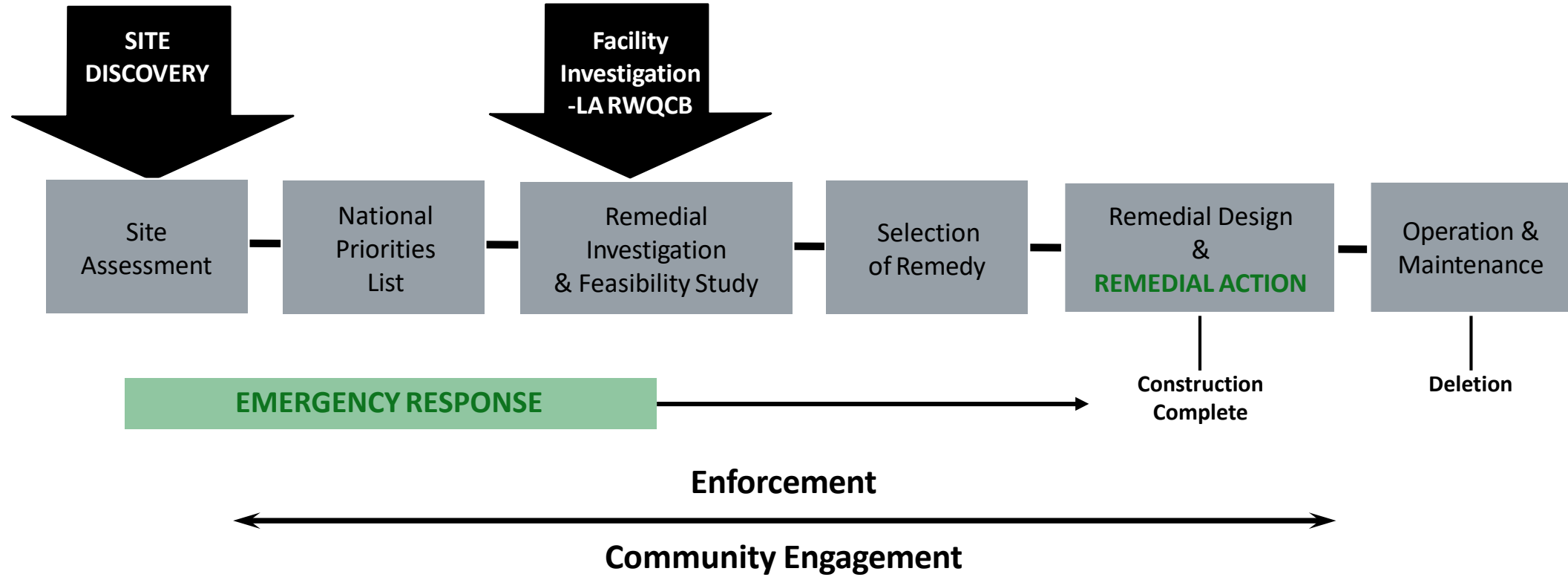
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Remedial Response

Superfund Process





Remedial Response

- Long term cleanup for sites on National Priorities List.
- 18% of US population lives within 3 miles of a Superfund site.
- Most sites are in Environmental Justice communities.
- Nation: 1746 sites; Deleted: 399 sites
- Region 9: 133 sites; Deleted: 20 sites

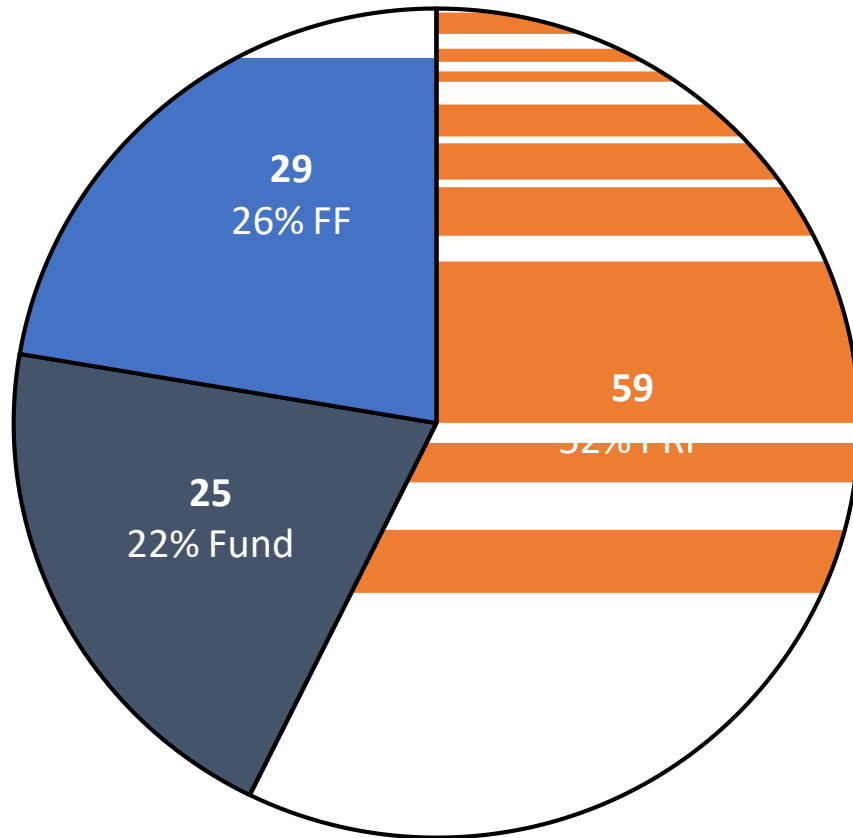
About the Pacific SouthWest Region

- More Megsites than any other region.
- More Federal Facilities.
- Large groundwater contamination sites.
- Treat contaminated groundwater for drinking water end-use.





Site Cleanup: Who Pays?



- **PRP-Lead: EPA Orders PRPs to Do Cleanup**
- **Fund-Lead: EPA Does Cleanup Using "Superfund"**
- **FF-Lead: FF Does Cleanup under EPA Oversight**



SUPERFUND SITES WITHIN REGION 4





KEY FACTS FOR SUPERFUND REMEDIES IN REGION 4

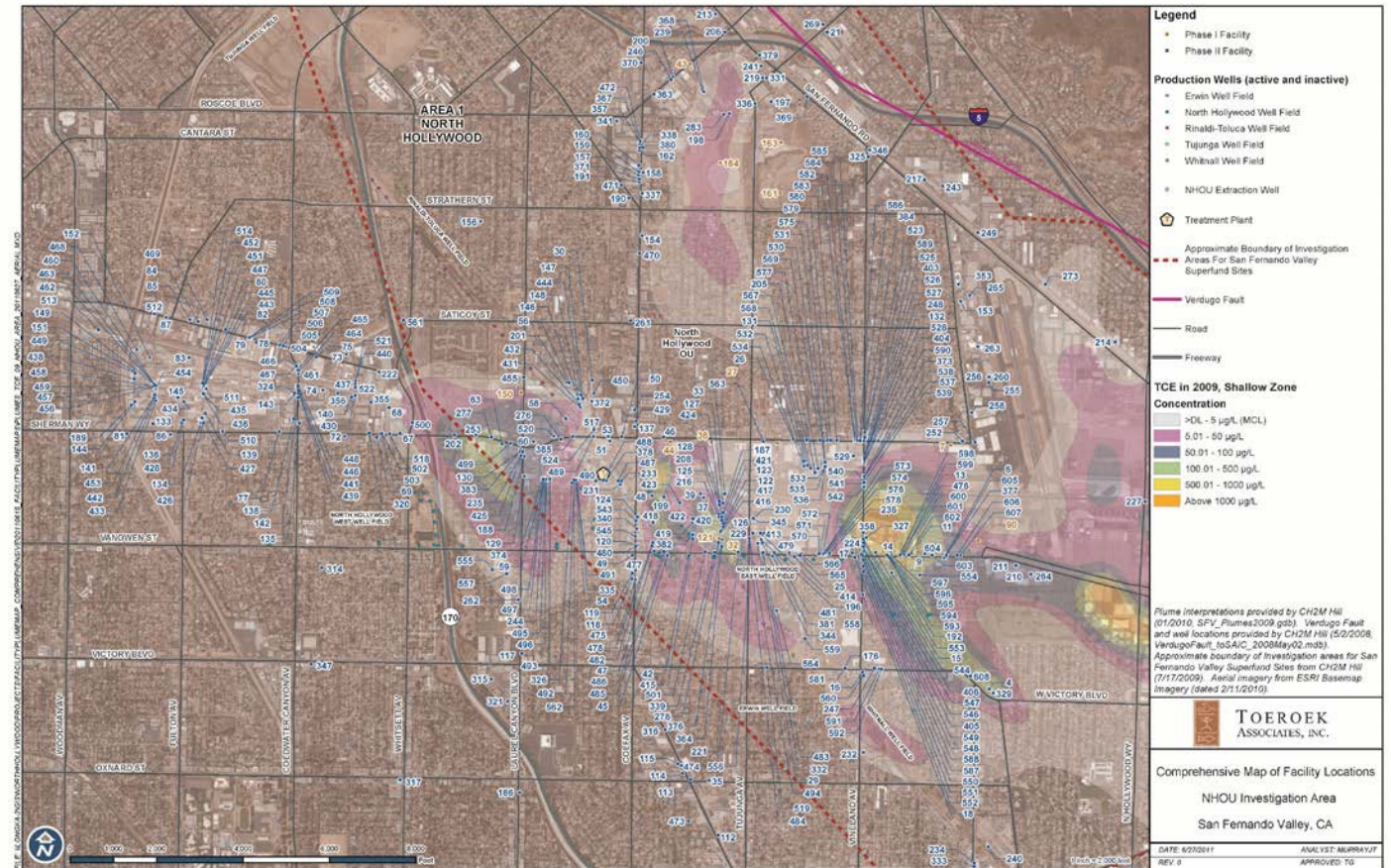
- 89.5 mgd of contaminated groundwater treated and re-used in drinking water systems for San Gabriel and San Fernando Valley sites
- Over \$35 million paid by polluters per year for operation and maintenance on Region 4 Superfund sites
- 1989 -2017 San Fernando remedies removed over 175,000 pounds of VOCs and produced 90 billion gallons of clean drinking water



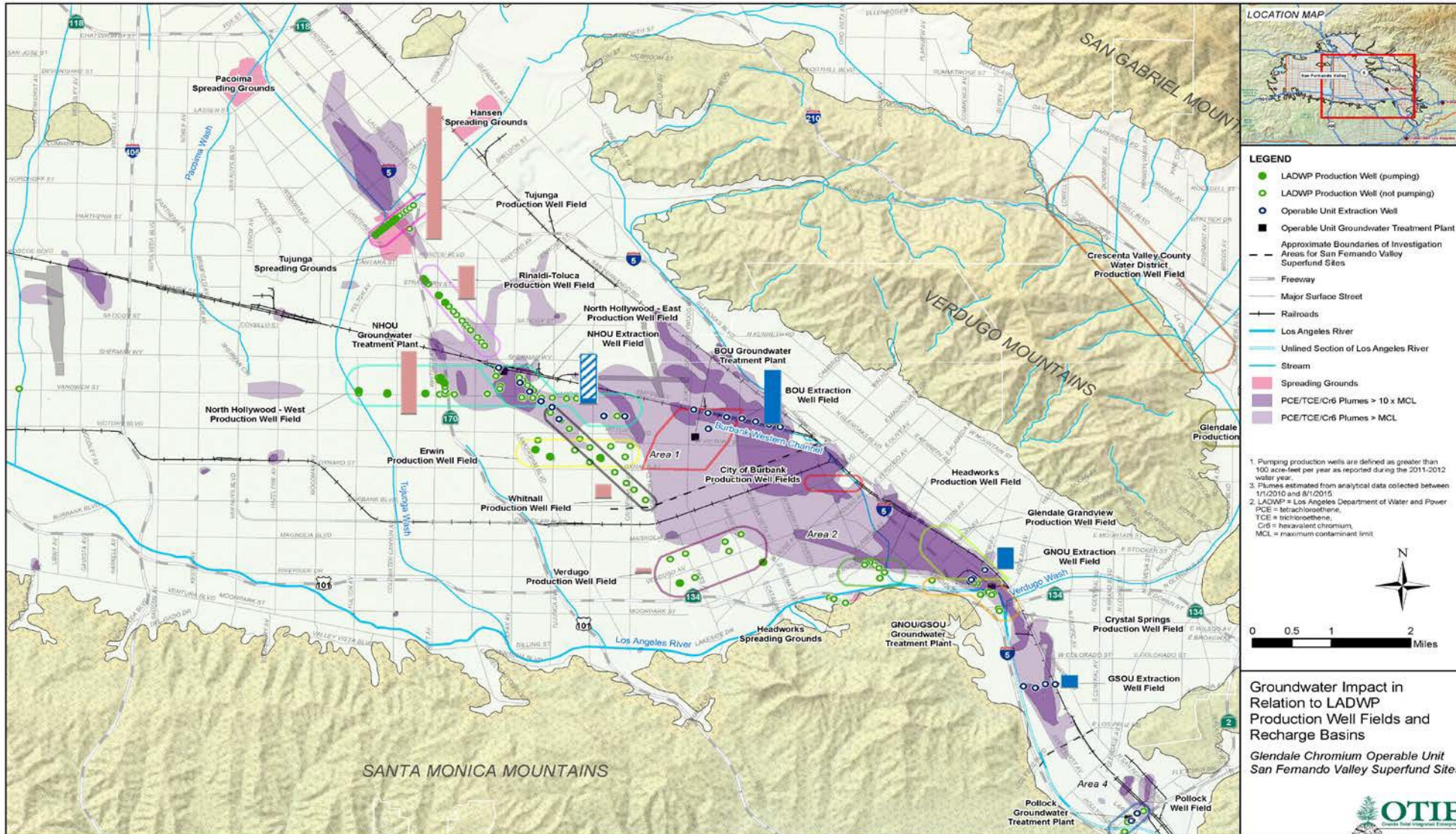
SFV SOURCE INVESTIGATION - EPA AND LARWQCB COOPERATION

RESULTS:

- >1000 of facilities investigated
- >\$4 MM in grants to LA RWQCB
- > 500 NFA letters issued



Enforcement Confidential Deliberative Process Do Not Release Under FOIA





DROUGHT CONDITIONS

Colorado River Basin (includes Arizona, California and Nevada in Region 9):

- Drought conditions have continued over the past 14 years
- Impacting 7 states
- Lake Mead at historic low and water allocations may be rationed for downstream users

Drought elements:

- Lower precipitation rates
- Higher temperatures
- Decreased snowpack

California:

- Fourth year of drought conditions
- 2014/2015 driest year in recorded California history
- 2014 was another record year of warm temperatures
- 2015 snowpack at record lows (9% of April average)
- State imposing mandatory water restrictions
- Cost of imported water is increasing significantly



IMPACTS ON SUPERFUND CLEANUPS

- Drought is increasing focus on the end-use of treated groundwater, and faster cleanups
- Emerging Contaminants (e.g., PFAS, PFOA, perchlorate, hexavalent chromium, 1,4 dioxane) continue to complicate groundwater cleanups.
- Impact on Environmental Justice Communities
- EPA resources have been declining since 2011; both in terms of funds and people
 - In 2012 - the budget for remedial action was \$231 million; in 2018 - \$187 million
 - In 2017 - there were 18 new construction projects that were not able to be started due to lack of funding
 - Declining staff FTE - EPA has lost 13 project managers over the last year.
 - And yet, there is increasing demand to respond to emergencies (ie, fires, mudslides, volcanoes, etc.)



SUMMARY

- Drought is making groundwater cleanups even more challenging
- Improved creative problem-solving to achieve win-win solutions
- Continued focus on cooperation and coordination will be critical