

**CAPCOA Enforcement, Engineering and Toxics
Symposium 2017, Folsom**

**DTSC Overview &
Coordination with Air Districts**

Mohsen Nazemi, M.S., P.E., Deputy Director
Site Mitigation & Restoration Program



Department of
Toxic Substances
Control



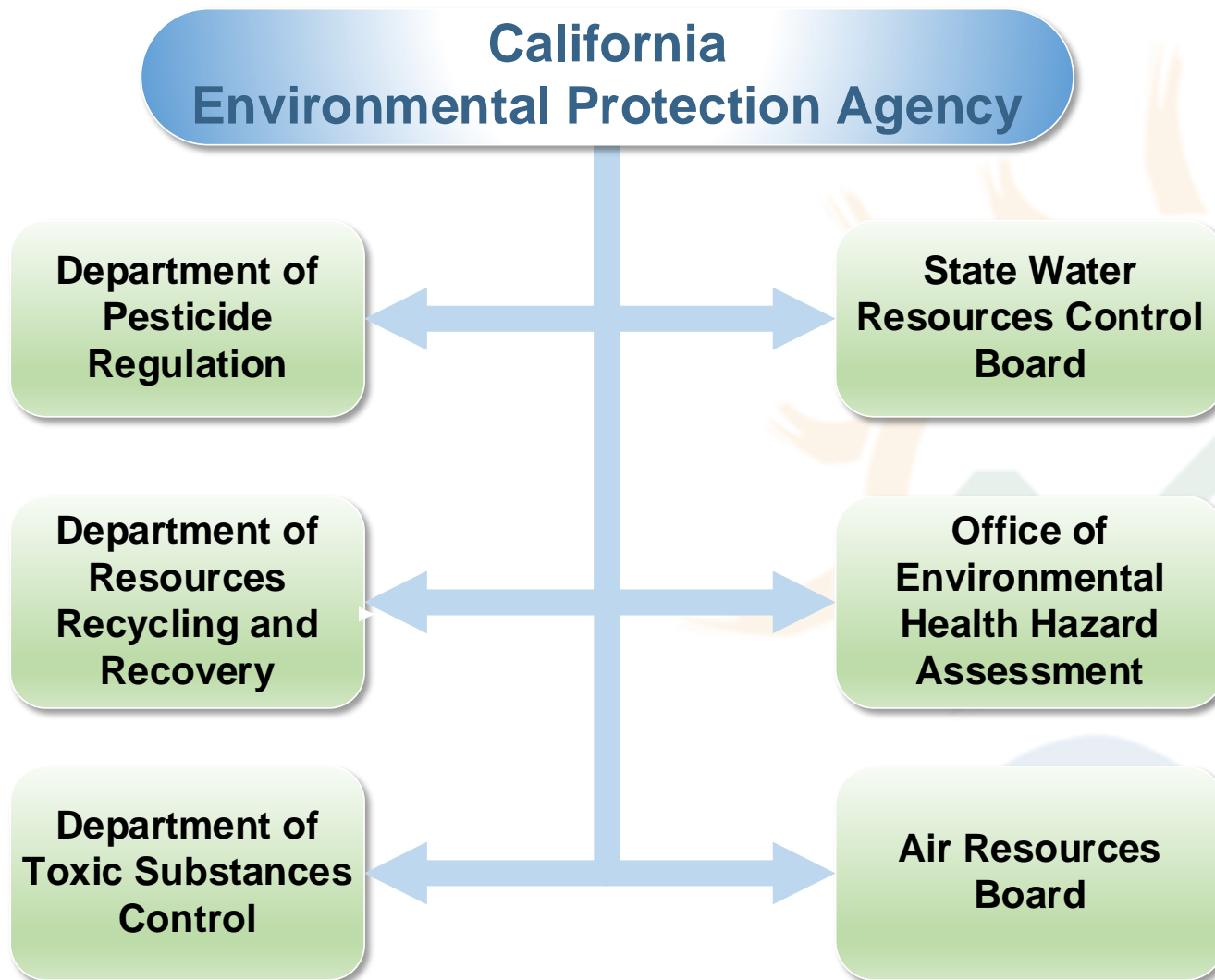
CalEPA
California Environmental
Protection Agency

Department of
Toxic Substances
Control

Topics

- **California Environmental Protection Agency's (CalEPA's) Organization**
- **DTSC's Core and Support Programs**
- **Discussion of Various Site Mitigation & Restoration Program Activities**
- **DTSC Coordination with Air Districts**
- **Case Examples**

CalEPA's Organization



DTSC's Core and Support Programs

Core Programs:

- **Hazardous Waste Management**
- **Safer Products and Workplaces**
- **Environmental Justice and Tribal Affairs**
- **Site Mitigation and Restoration**

DTSC's Core and Support Programs (continued)

Support Programs:

- **Communications**
- **Public Participation**
- **Legal Affairs**
- **Legislation**
- **Environmental Chemistry Lab**
- **Civil Rights**
- **Environmental Information Management**
- **Administrative Services**



Core Program: Hazardous Waste Management Program

- Enforcement & Emergency Response
- Permitting
- Office of Criminal Investigations
- **FY15/16 Accomplishments**
 - 12 completed permits
 - 5 closures
 - 49 emergency permits
 - Over 300 regulated facility inspections
 - 48 administrative or civil enforcements
 - Over 3,000 trucks inspected at border



Core Program: Hazardous Waste Management Program (continued)

- **Regulation Improvements**

- Hazardous Waste Facility Permitting Criteria Rulemaking per SB673

45 day comment period – 9/22/17 through 11/5/17

Public Hearing – 11/6/17, 9:30am, Cal/EPA Headquarters

www.calepa.ca.gov

Core Program: Hazardous Waste Management Program (continued)

Permit Decision Criteria – SB 673

HSC Section 25200.21 requires DTSC to create or update objective criteria for making permit decisions that may result in the denial or suspension of a permit. DTSC must consider all of the following criteria:

- (a) Number and types of past violations that will result in a denial.**
- (b) The vulnerability of, and existing health risks to, nearby populations.**
- (c) Minimum setback distances from sensitive receptors.**
- (d) Evidence of financial responsibility and qualifications of ownership.**
- (e) Provision of financial assurances.**
- (f) Training of personnel in the safety culture and plans, emergency plans, and maintenance of operations.**
- (g) Completion of a health risk assessment.**

Core Program: Safe Products and Workplaces

- Established in 2013
- Reduce toxic chemicals in consumer products
- New business opportunities for safer products
- Product awareness



Core Program: Safe Products and Workplaces (continued)

Regulatory Improvements

- **Children's foam padded sleeping products**
- **Paint and varnish removers**
- **Spray polyurethane foam systems**
- **Established criteria for the testing and making of brake pads so as to meet copper and other constituents restrictions**

Core Program: Safe Products and Workplaces (continued)

- **Priority Product Work Plan 2018-2020**
 - Identifies, describes product categories for DTSC evaluation
 - Category consideration currently under review
- **Lead-acid Battery and Alternatives Public Workshop**
 - November 6, 2017, 9am to 5pm
 - CalEPA Headquarters, 1001 I Street
 - Gather information on lead-acid batteries and alternatives as a potential Priority Product

Core Program: Environmental Justice and Tribal Affairs

- Newly established in 2016
- Enhances protections for vulnerable communities
- Facilitates equitable data collection and communication
- Improve public access to technical resources and decision-makers



Core Program: Environmental Justice and Tribal Affairs (continued)

Workforce for Environmental Restoration in Communities (WERC)

- **Supports public health, community engagement, and the local economy**
- **Training to Employment Program**
 - 40-hour hazwoper, lead sampling certification, XRF operator
 - Exide, Riverside County
 - 49 community members graduated from WERC in 2016
 - 45 hired by contractors

III. Site Mitigation & Restoration Program Overview and Discussion of Program Activities

DTSC Site Mitigation Program's Mission



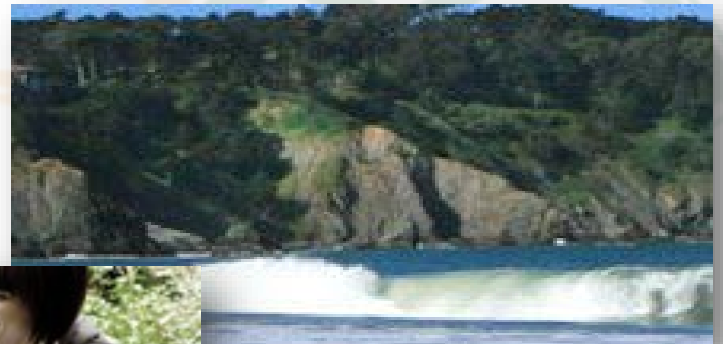
“To protect California’s people and environment from harmful effects of toxic substances by restoring contaminated resources”



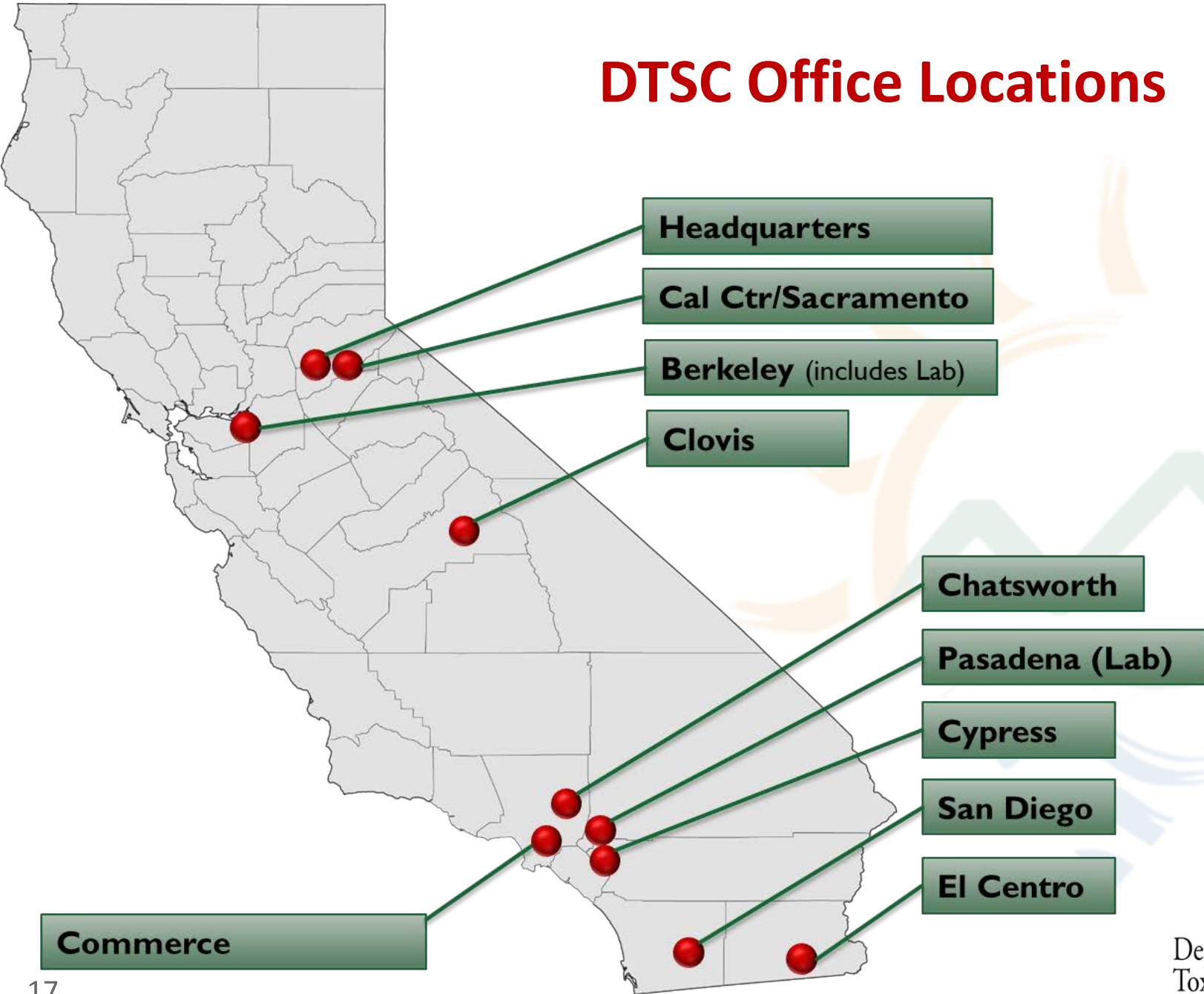
DTSC Site Mitigation Program's Vision

Californians enjoy a clean and healthy environment, and as a result of our efforts

- **Communities are confident that we protect them from toxic harm**
- **Businesses are confident that we engage them with consistency and integrity**



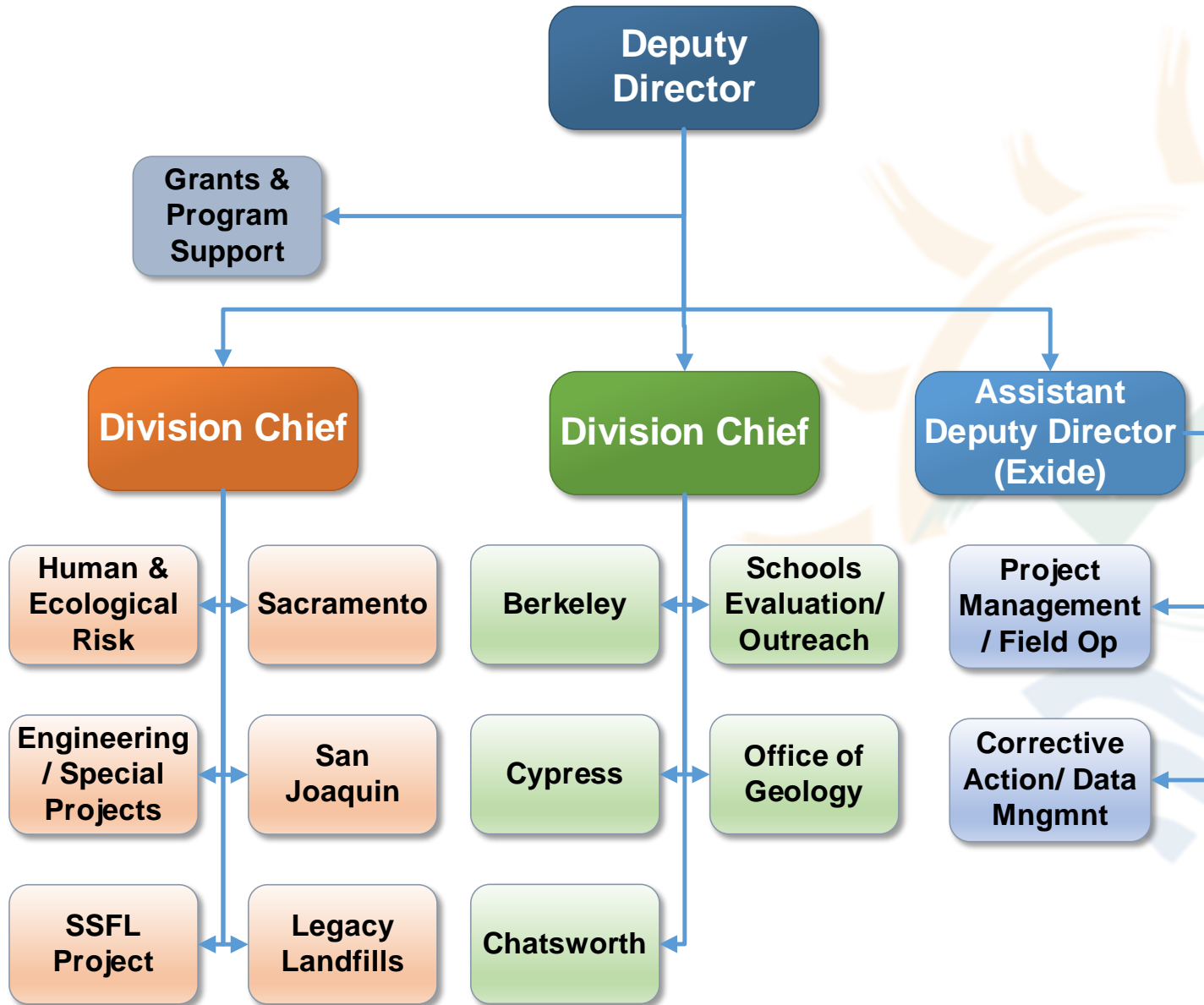
DTSC Office Locations



Site Mitigation Program Staff

- **Mohsen Nazemi** - Deputy Director
- Location – Based in Cypress Office
- Staffing – 362.75 Positions including limited-term positions
- in 6 offices:
 - 1 Assistant Deputy and 2 Division Chiefs
 - 14 Branch Chiefs
 - 44 Unit Chiefs
 - 272 Environmental Scientists, Hazardous Substances Engineers, Engineering Geologists, Toxicologists, Administrative Professionals

Site Mitigation Program Org Chart



Site Mitigation Program Authority

- **Hazardous Substance Account Act (Health & Safety Code, Division 20, Chapter 6.8)**
 - Require responsible parties to clean up sites
 - Pursue responsible parties at all sites
 - State funds for site actions where no responsible party
 - Compliant with National Contingency Plan (Federal regulation)
- **Hazardous Waste Control Law (Health & Safety Code, Division 20, Chapter 6.5)**
 - Regulates facilities that treat, store, and dispose of hazardous waste
 - Corrective action to address hazardous waste releases
 - Permits for treatment, disposal, > 90 day storage
 - Requirements for closing permitted units and post closure
 - Consistent with federal hazardous waste management requirements

Site Mitigation Authorities (continued)

- **California Land Reuse and Revitalization Act (CLRRRA)**
 - Prospective purchasers remediate contaminated properties
 - Purchasers receive immunities – protection from liability for existing contamination
- **California Education Code Sections 17078.54 or 17268, and 17213.1**
 - Requires assessment of school properties for hazardous substances
 - Remediation of hazardous substances on school sites

Site Mitigation Authorities (continued)

Regulation Improvements

- **Post-Closure Rule**

- SB1325 – Health and Safety Code Section 25247
- Restores authority to impose post-closure requirements via enforcement order or agreement

- **Toxicity Criteria**

- Title 22, Division 4.5, sections 68400.5, 69020, 69021, and 69022
- Cleanup performance standard
- Toxicity criteria list

Post-Closure Rule

- **SB 1325 (de León) requires DTSC to adopt by regulation the federal Post-Closure Rule by 2018.**
- **The rule provides flexibility for post closure oversight by using enforceable documents in lieu of permits.**
- **Currently the rule is noticed for public comment and scheduled for adoption in early 2018**

Toxicity Criteria Regulation

- **Specifies Use of Certain Uniformly Protective, Science-based Toxicity Criteria In Development of Risk Assessments, Screening Levels, and Remediation Goals**
- **Codifies Existing Practice. Applies to all Hazardous Waste and Hazardous Substance Cleanup Sites in California**
- **Necessary to Ensure Remediation Goals are Protective of California's Diverse Demographic and Are Applied Consistently Throughout the State**
- **Expect Adoption in Early 2018**

Sources of Site Mitigation & Restoration Program Funding

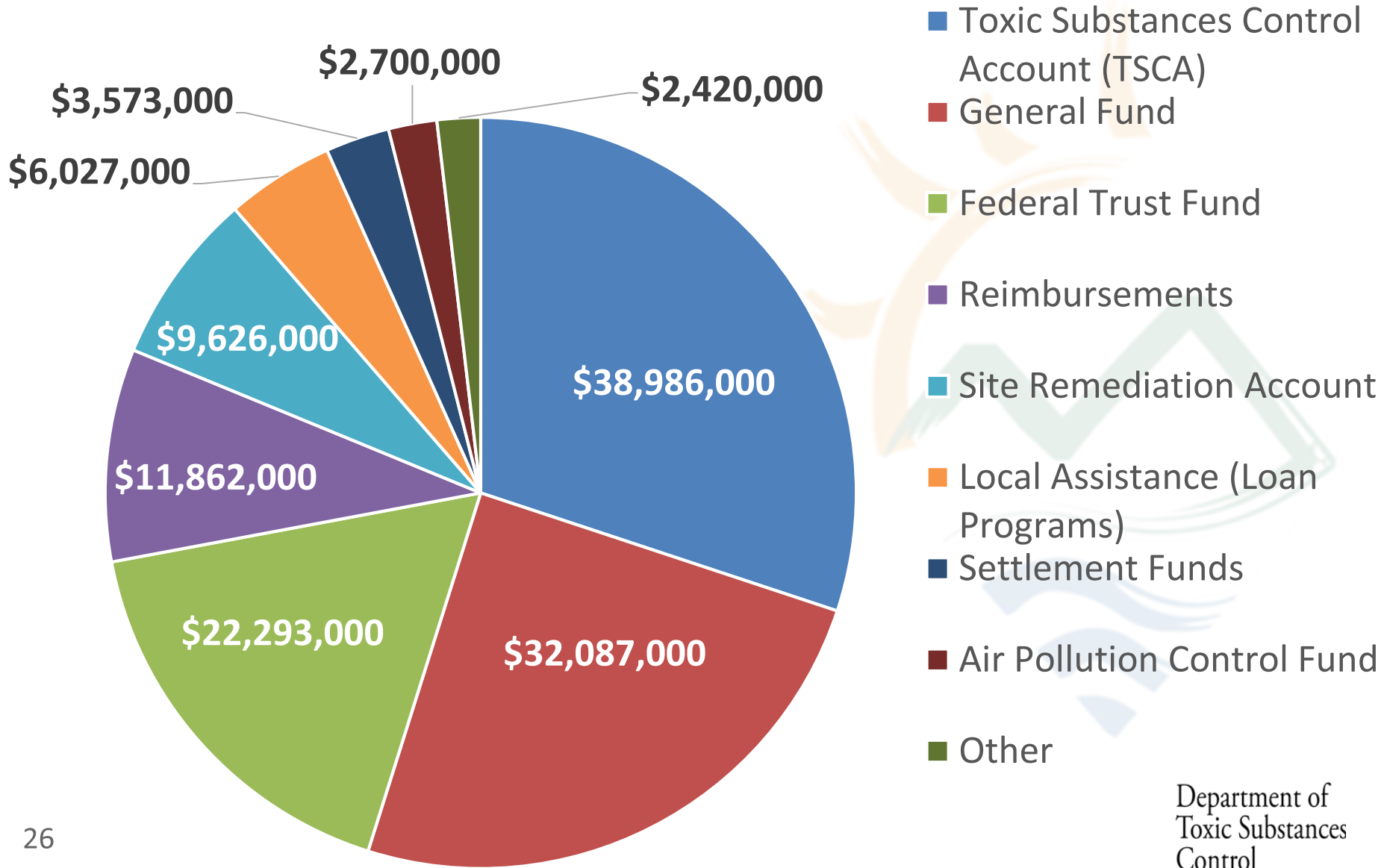
Major Funding Sources (>75% of Cleanup Expenditures)

- General Fund
- Toxic Substances Control Account
- Federal Trust Fund

Other Funding Sources

- Reimbursements
- Site Remediation Account
- Local Assistance (Federal and State Funding)
- Settlement Funds
- Other – Special Funds (Air Pollution Control, Waste Discharge Permit, Illegal Drug Lab Cleanup, and Lead-Acid Battery Funds)

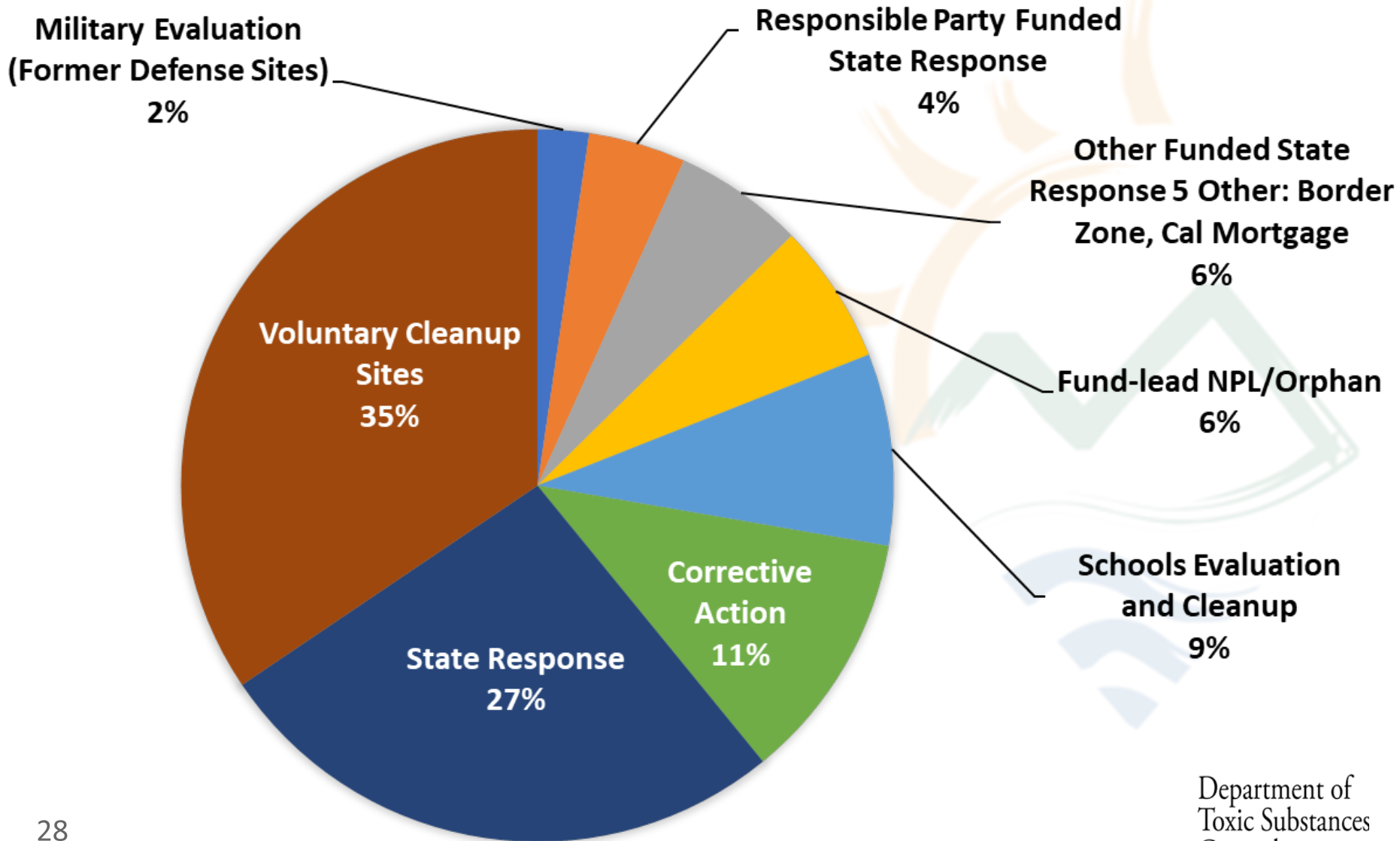
Site Mitigation & Restoration Authorized Expenditures (Dollars) – Budget Act of 2017



Site Mitigation & Restoration Program Activities

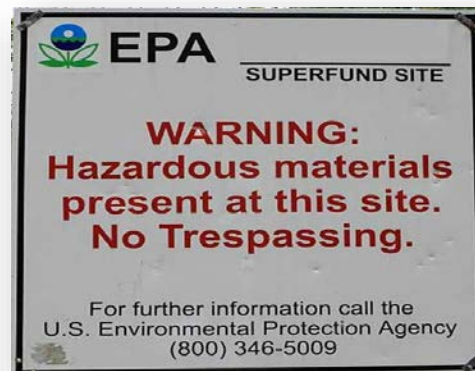
- **National Priorities List (U.S. EPA lead)**
- **State Response (State lead enforcement)**
- **Corrective Action/Hazardous Waste Releases (Hazardous Waste Control Law)**
- **Voluntary Cleanup Program (VCA)**
- **Schools Program**
- **Formerly Used Defense Sites**
- **Fund-lead National Priorities List / State Orphan**
- **Other**

Site Mitigation & Restoration Program Activities (continued)



Site Mitigation Federal Program

- **1970s - Concerns for health impacts from uncontrolled hazardous waste disposal sites**
- **1980 - Comprehensive Environmental Response, Compensation, and Liability Act (Federal Superfund Law) passed, gave United States Environmental Protection Agency (U.S. EPA) authority to:**
 - Order responsible parties to clean up sites
 - Use federal funds at sites with no responsible parties



Site Mitigation State Program

- **1981 - California Hazardous Substance Account Act (Health & Safety Code Division 20 Chapter 6.8)**
 - authority to order responsible parties to clean up sites
 - matching state funds for NPL sites
- **Established in 1981**
- **Under Department of Health Services Toxic Substances Control Division**
- **Expanded from Sacramento headquarters to other offices in Northern and Southern California**



Site Mitigation Program in 1980s

1981

< 10 staff in Sacramento

1983-1990 State site list grew from 60 to over 400

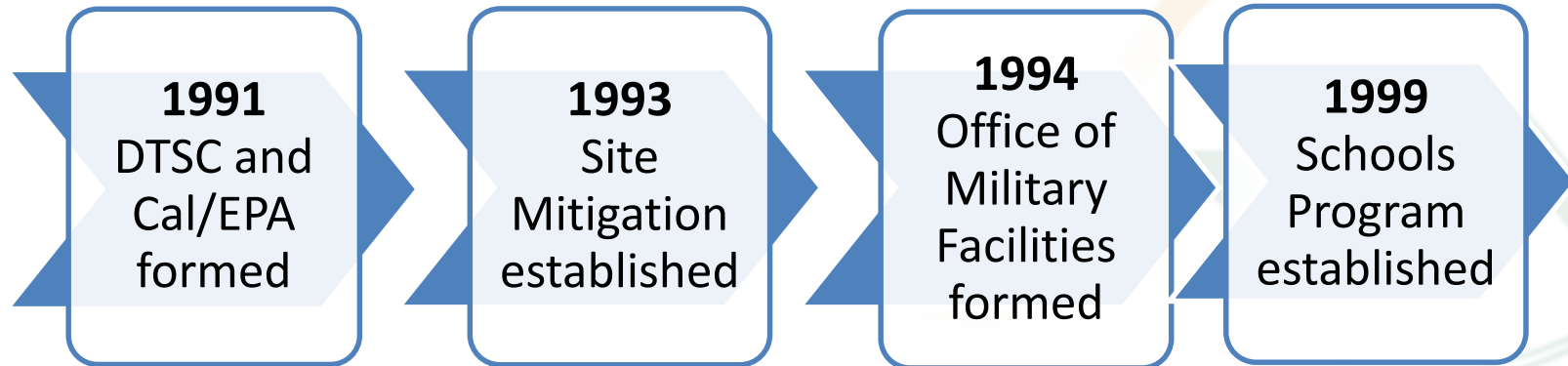
1984

Hazardous Substances Cleanup Bond – \$100 million fully expended

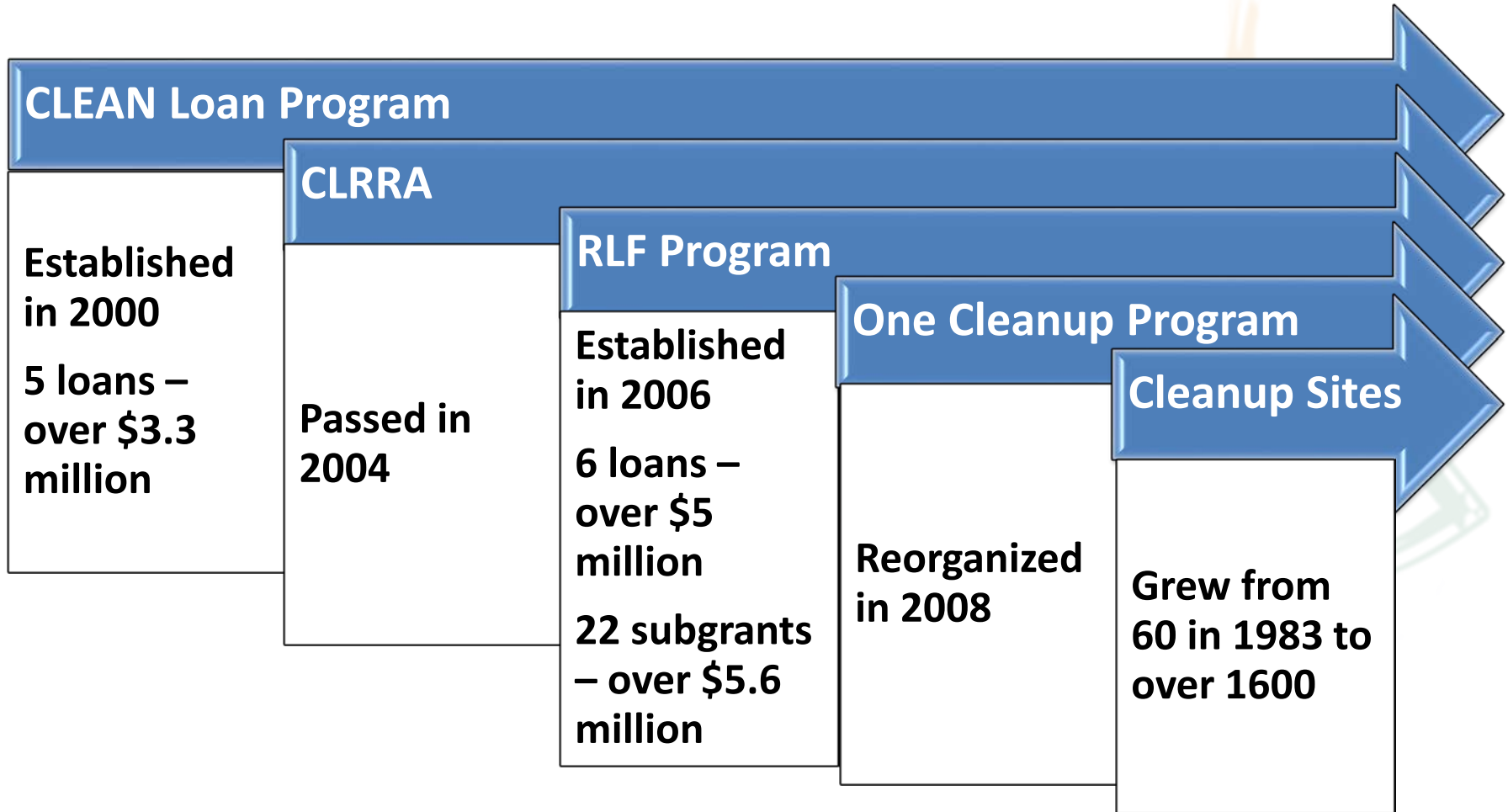
1990

Offices in Sacramento, Emeryville, Long Beach, and Burbank

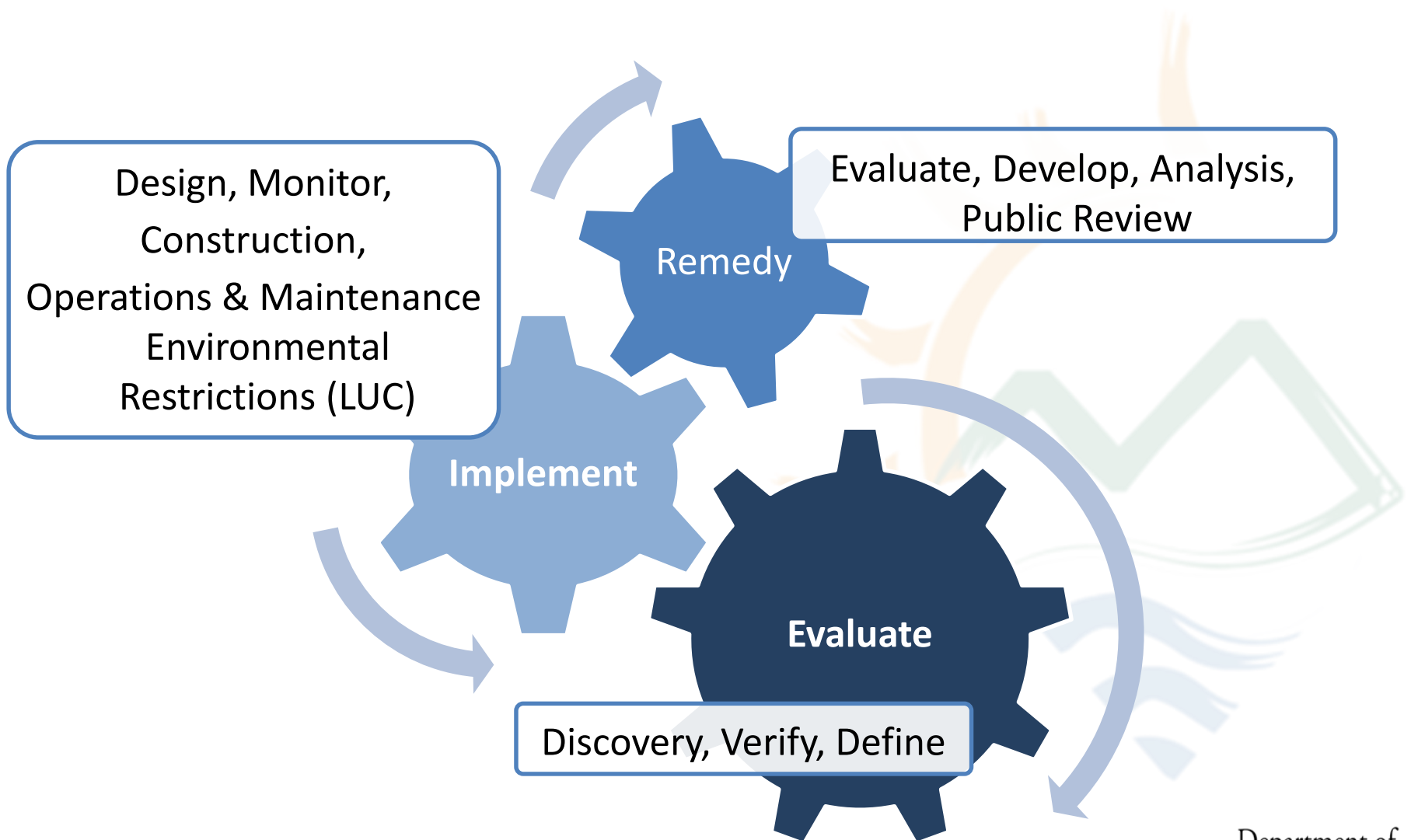
Site Mitigation Program in 1990s



Site Mitigation Program in 2000s



Site Remediation Process Summary



National Priorities List (U.S. EPA Lead)

- **98 in California (listed by U.S. EPA)**
- **Federal enforceable order or agreement**
- **Includes military bases, industrial, landfills, mines and Department of Energy sites**
- **74 sites responsible party funded**
- **2 sites state is responsible party (Stringfellow & Leviathan)**
- **22 sites (no responsible party)**

State Response (State Lead Enforcement)

- **444 sites (includes operation and maintenance and land use covenant sites)**
- **Enforcement order or agreement**
- **Non-National Priorities List**
- **Includes industrial, commercial, landfills, and military bases (example – Sacramento Railyard)**
- **Responsible party funded**

Corrective Action

- **191 facilities (includes operation and maintenance and land use covenant sites)**
- **Order or consent agreement**
- **Cleanup at permitted or non-permitted hazardous waste facilities**
- **Includes industrial and commercial property**
- **Owner/operator or other responsible party funded**

Voluntary Cleanup Program

- **578 sites (includes operation and maintenance and land use covenant sites)**
- **Voluntary Cleanup Agreement (VCA)**
 - Includes commercial and developments
 - Coordinate new applications with RWQCB
 - Proponent funded

Schools Sites

- **146 sites (includes operation and maintenance and land use covenant sites)**
- **K-12 public schools**
- **State funded new construction/additions**
- **Includes commercial/residential infill, agricultural property, and naturally occurring hazardous substances**
- **School district funded**

Formerly Used Defense Sites

- **39 Formerly Used Defense Sites**
- **253 properties – DTSC and/or Water Board either completed cleanup or made a No Further Action determination**
- **~900 additional properties need evaluation**
- **Includes airports; county property; county fair sites; and federal, state and private properties**
- **Former airfields, training bases, bombing ranges, artillery emplacements, missile bases, etc.**
- **Limited DOD funding**

National Priorities List/State Orphan

- 107 sites (includes operation and maintenance and land use covenant sites)
- 22 National Priorities List
- Includes industrial, commercial, and mines
- State contractors
- Time-critical/emergency removal action



Legacy Landfills

- **Stringfellow Acid Pits Superfund Site (Jurupa Valley/Glen Avon)**
- **BKK Landfill State Response Site (West Covina)**
- **International Technology Landfill Post Closure (various)**



DTSC Coordination with Air Districts

California Air Resources Board (ARB)/Local Air Districts

- **Air dispersion modeling/permitting**
- **Ambient monitoring**
- **Health Risk Assessments (Air Toxics Hot Spots)**

DTSC Coordination with Air Districts (continued)

Local Air District Rules:

- Fugitive Dust Emissions
- Volatile Organic Compound Emissions
- Soil Excavation, Stockpiling, and Transportation
(e.g., South Coast Air Quality Management District Rules 403 and 1166)

Action Levels/Monitoring

- **On-Site Worker Health and Safety**
- **Off-Site Resident Protection**
- **Perimeter Air Monitoring**



Field Oversight

Watering for Dust Control



Soil Sampling



Case Examples

Examples:

- **Mines**
- **Wood Treaters**
- **Pesticide Formulators**
- **Plating Shops**
- **Dry Cleaners**
- **Porsche**



Case Examples – Mine Sites

Argonaut Mine - Amador County

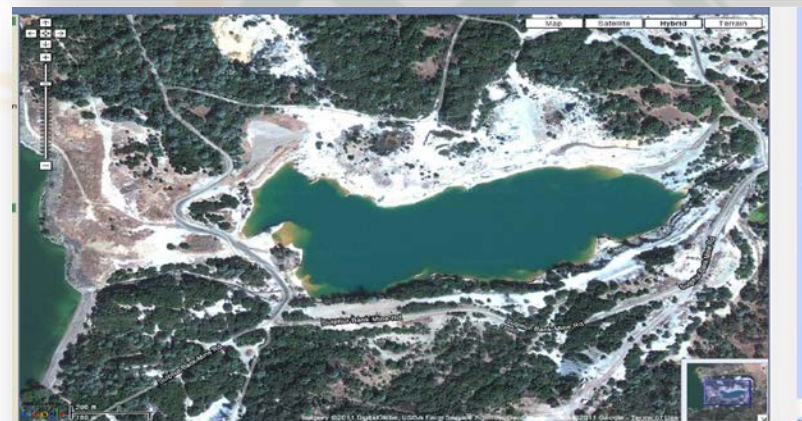
- Processed ore for gold between the 1850s to 1942
- Mine tailings –
 - sulfur, arsenic, lead, mercury
 - with rain, sulfuric acid is formed
 - Retained by a 100 year old dam above the City of Jackson
- finalizing design to retrofit the dam to prevent failure



Case Examples – Mine Sites

Sulphur Bank Mine – Lake County

- Mined for sulphur and mercury between 1865 to 1957
- One of California's largest mercury producers
- Clearlake fish consumption advisory due to mercury in fish
- Federal NPL Site – bankrupt responsible parties
- State cost share to exceed \$10 million



Case Examples: Wood Treaters

Wickes Forest Industries - Solano County

- Former wood treating facility – ceased operations in 1982
- 1995 declared bankruptcy
- Soil and groundwater contaminants – arsenic, chromium, and copper
- Soil cleanup was completed in 2012
- Currently conducting groundwater monitoring to evaluate the soil cleanup affects on the levels of groundwater contaminants



Case Examples: Wood Treaters

Selma Pressure Treating Company - Fresno County

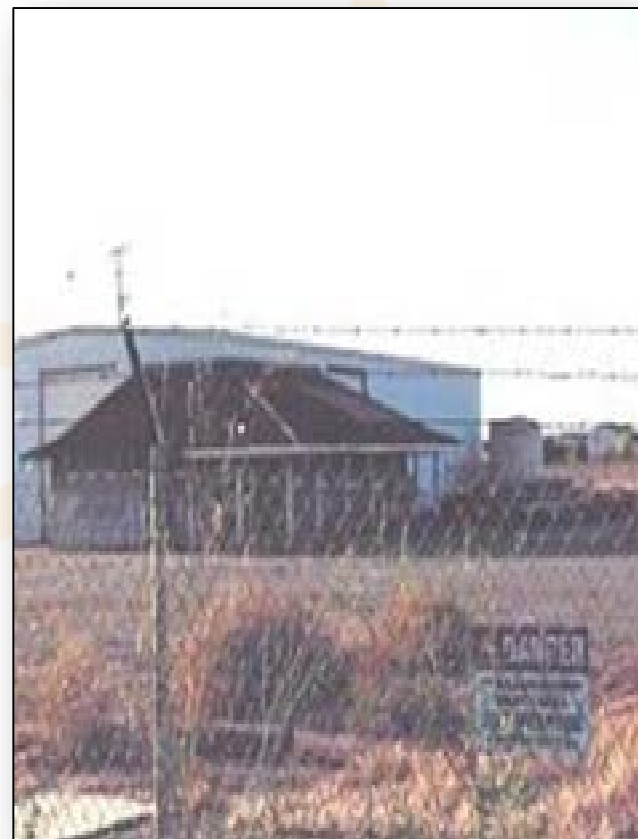
- Wood-preserving treatment facility between 1936 to 1981
- 2 domestic water wells – contaminated with hexavalent chromium
- US EPA funded and constructed treatment systems for both wells
- DTSC provided bottled water to the residents
- Groundwater extraction and treatment system operation and maintenance is conducted daily



Case Examples – Pesticide Formulators

Frontier Fertilizer - Yolo County

- Agricultural chemical supply and distribution facility through the late 1980s
- Soil and groundwater contamination – 1,2-dibromoethane, 1,2-dichloropropane, 1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane, and carbon tetrachloride
- Groundwater pump and treat for pesticides
- Costs \$800,000/year



Case Examples – Pesticide Formulators

Central Valley Fertilizer Company, Inc. - Merced County

- Pesticide formulation, storage and distribution facility that operated between 1950 to 1986
- Soil contamination – arsenic, toxaphene, and dieldrin
- Asphalt cap



Case Examples: Plating Shops

J&S Chrome Plating, Los Angeles County

- Chrome plating facility which operated between 1953 to 1999
- Soil and groundwater contaminants – hexavalent chromium, PCE, and TCE
- Groundwater plume migration
- Remediation reduced threat
- Groundwater cleanup operations and monitoring ongoing



Case Examples – Plating Shops

Sacramento Plating – Sacramento County

- Metal plating facility between 1952 to 1990
- Soil, soil gas and groundwater contamination – TCE, chromium
- Remediation for unrestricted land use
- Untreated groundwater still threat
- In-situ technology
- Natural Foods Co-op parking structure



Case Examples – Dry Cleaners

Peter Pan Cleaners - Sonoma County

- Dry cleaners since 1966
- Soil, soil gas, groundwater contamination – PCE, trichloroethylene, cis-1,2-dichloroethylene, and vinyl chloride
- PCE detected in the indoor air of the dry cleaner operation and several nearby residences
- Soil vapor extraction (SVE) system in 2010



Case Examples – Dry Cleaners

Harris Dry Cleaners - Alameda County

- Dry Cleaners between the early 1950s to 1983
- Soil and groundwater contamination – PCE, TCE, cis-1,2-dichloroethylene, and vinyl chloride
- Groundwater contamination – total petroleum hydrocarbons
- In-situ remediation pilot study



Case Examples – Porsche

Porsche Experience Center (Carson, CA)

- Originally part of BKK Main Street Dump
- Permitted to accept Class II wastes (liquid and solid)
- Landfill closed in 1959
- Remedial Action Plan approved in 2012
- Remedy completed 2016



Case Examples – Porsche (continued)

Redevelopment Facts

- Former landfill property transformed into productive re-use
- Redevelopment investment of more than \$35M in site development and improvements
- 290 jobs in the short and long term
- Facility is expected to generate \$22M in yearly economic activity
- Overall project costs, including remediation, are estimated at more than \$50M



Public Information

ENVIROSTOR

10000 S Western Ave, Los Angeles, CA 90047

Sites and Facilities

- Federal Superfund
- State Response
- Voluntary Cleanup
- School Cleanup
- Evaluation
- School Investigation
- Military Evaluation
- Tiered Permit
- Corrective Action

STATUS: All Statuses

Permitted Sites

- Operating

SITES CURRENTLY VISIBLE ON MAP 1334 SITES LISTED

PROJECT NAME	STATUS	PROJECT TYPE
1117 SOUTH LONG BEACH BOULEVARD	INACTIVE - NEEDS EVALUATION	EVALUATION
12210 1/2 NEBRASKA AVENUE PROPERTY	REFER: RWQCB	VOLUNTARY CLEANUP
1330 EAST FRANKLIN AVENUE	ACTIVE	VOLUNTARY CLEANUP
1609-11 RIPLEY LANE	REFER: 1248 LOCAL AGENCY	EVALUATION

Public Information

Mohsen Nazemi, Deputy Director
Site Mitigation and Restoration Program
Department of Toxic Substances Control
(714) 484-5446

Regulatory Assistance Officers
(800) 72TOXIC or (800) 728-6942
Return call within 2-3 business days

Emergency Response
Monday – Friday, 8am-5pm, (800) 260-3972
After Hours, Cal EMA Warning Control Center, (800) 852-7550