



# Mitigation in Perpetuity

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## Presentation Topics

- **DTSC School Property Evaluation & Cleanup Division**
- **DTSC “Hot Button” Chemicals of Concern**
- **Three-Step Process**
- **Environmental Oversight Agreement**
- **O&M Plan/Monitoring Implementation**
- **Strategies/Costs**

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# California Environmental Protection Agency

**Department of Toxic Substances Control (DTSC)**

**School Property Evaluation and Cleanup Division**

**[www.dtsc.ca.gov/SiteCleanup/Schools](http://www.dtsc.ca.gov/SiteCleanup/Schools)**

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## “Hot Button” Chemicals of Concern

- **Naturally-Occurring Asbestos (NOA)**
- **Methane/Hydrogen Sulfide**
- **Lead-Based Paint (LBP)**
- **Organochlorine Pesticides (OCPs)**
- **Polychlorinated Biphenyls (PCBs)**
- **Arsenic/Heavy Metals**

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## Three-Step Process

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## Three-Step Process

- **Phase I Environmental Site Assessment (ESA)**

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## Three-Step Process

- **Phase I Environmental Site Assessment (ESA)**
- **Preliminary Endangerment Assessment (PEA)**

## Three-Step Process

- **Phase I Environmental Site Assessment (ESA)**
- **Preliminary Endangerment Assessment (PEA)**
- **Response Action**

# Environmental Oversight Agreement

- **Eligibility**

- Fact Sheet #1 New Environmental Regulations for Proposed School Sites (AB 387/SB 162)
- Fact Sheet #3 Update on School Site Environmental Review Process (AB 972)

# Environmental Oversight Agreement

- **Services**

- Project Scoping/Consultation
- Workplan Review
- PEA Review
- Risk Assessment
- Public Participation Support
- **Cost Estimate/Cost Recovery**

## Voluntary Cleanup Agreement (VCA)/ School Cleanup Agreement (SCA)

- **Supplemental Site Investigation (SSI)**
- **RAW/FS-RAP**
  - Mitigation and Monitoring Plan

## Operation & Maintenance (O&M) Plan

- **Enforceable Agreement with DTSC**
  - Management Memo #EO-93-036-MM
- **Implementation**
- **Monitoring**
- **Reporting**
- **Five-Year Review**
- **Emergency Response Action/Notification**

## O&M Plan Components

- **Maps**
- **Inspection Program**
  - “Trigger Events”
- **Response Procedures**
- **Soil Management (new construction/expansion)**
- **Maintenance/Monitoring Activities**
  - Air Monitoring
- **Reporting**
- **Restrictions on Future Invasive Activities**

## O&M Plan Implementation

- **Project Coordinator**
  - School District/Consultant
- **O&M Professional**
  - Consultant
- **School Site Designee**
  - School District

## Naturally-Occurring Asbestos

- **Hazards**
- **Common Remedies/Engineering Controls**
- **O&M Requirements**

## Methane

- **Hazards**
- **Common Remedies/Engineering Controls**
- **Monitoring Program**
  - Subsurface Gas Probes
  - Combustible Gas Evaluation along Ground Surface
- **O&M Requirements**

## O&M Plan Implementation Considerations

- **Requirements Should Fit Situation**
- **Understand/Standardize Reporting**
- **Exit Strategies**

## O&M Plan Implementation Considerations

- **Plan Preparation**
  - Registered Professional (P.G., P.E., C.I.H., etc.)
- **Plan Implementation**
  - Consultant – registration/experience
- **School District – site knowledge**
- **Analytical Laboratory**

## Budget Considerations

- **O&M Plan Preparation**
  - Consultant with school District Review/Participation (\$10-15K)
- **O&M Plan Implementation (Consultant/District)**
  - Inspections (\$3-5K annually)
  - Monitoring/Sampling (\$5-10K annually)
  - Reporting (\$5-10K annually)
- **DTSC Oversight (\$3-5K annually)**

› Thank You!