

Former Seabreeze Yacht Center  
Ecological (Aquatic) Risks  
February 23, 1999 Meeting  
10:00 A.M.  
Alameda County's Office in Alameda

Tentative Agenda

1. Contaminants of Potential Concern/Groundwater and Soil Concentrations  
- monitoring wells  
- concrete containment area  
*Diane Heinze, Port of Oakland*  
*Yane Nordhav, Baseline Environmental*

2. RWQCB Cleanup Levels for Soil and Groundwater at Similar Bayside Sites  
- San Francisco International Airport  
- Eastshore Park/Mission Bay  
*Steve Hill/Derek Lee, RWQCB*

3. Regulatory Concerns  
- January 25, 1999 letter from Alameda County  
*RWQCB and Alameda County representatives*

4. Proposed Scope of work  
*Everyone*

*Request same type & amt of info req by Port for PDD  
Have they analyzed for PAHs?  
What re toxicity of metals?*

Post-it® Fax Note	7671	Date	2/19	# of pages	1
To	<i>Barney Chan</i>	From	<i>Diane Howe</i>		
Co./Dept.		Co.	<i>Port</i>		
Phone #		Phone #			
Fax #	<i>337-9335</i>	Fax #			

Yave - FYI

Diane Heizer



Submerge gw and correct concentration 20.  
 concentrations 40 SFIA Tier 0 cleanup levels  
 and Site A, but not E. Basin Marina

## Regulatory Review of 1998 and Forecast for 1999

Groundwater Resources Association's  
 San Francisco Bay Branch Monthly Meeting - January 1999

### Regulatory Review of 1998 and Forecast for 1999

Stephen Morse  
 San Francisco Bay Regional Water Quality Control Board  
 January 13, 1999  
 www.swrcb.ca.gov/rwqcb2

### Topics to be Covered

- Review of last year's "predictions"
- What did happen in 1998?
  - some examples of items of special interest
- "Predictions" for 1999
- What should happen in 1999

2

### Review of my 1998 "predictions"

Grade

<input type="checkbox"/>	● Change/Update UST Policy
<input type="checkbox"/>	- Update of RWQCB Supplemental Instructions
<input type="checkbox"/>	● Bayside Cleanup requirements
<input type="checkbox"/>	- Site cleanups -- onshore
<input type="checkbox"/>	- BPTCP -- off-shore sediment remediation
<input type="checkbox"/>	● Evolving Risk Based Decision Making
<input type="checkbox"/>	● Remediation by Natural Attenuation
<input type="checkbox"/>	● Continuing emphasis on enforcement
<input type="checkbox"/>	● Special emphasis -- dioxin, mercury
<input type="checkbox"/>	● Basin Plan groundwater amendments

3

### What Happened in 1998?

- Year of MTBE
  - Discovery in Great Oaks #3 in south San Jose
    - "full circle"
    - significant efforts by SCVWD and MTBE forum
  - RWQCB guidance on MTBE analyses
  - Ongoing discoveries of MTBE
    - significant potential
    - minor impacts in Bay Area muni wells ..... so far
  - Quarterly reports to water purveyors
  - Ongoing dissatisfaction with MTBE
    - "politicians, legislature, press, public, technical groups..... but...."
  - OEHA proposes 14ppb as PHG ( for carcinogen)
  - SF Bay RWQCB staff proposes MTBE interim aquatic toxicity water quality objectives

4

### What Happened in 1998? (cont.)

- Year of MTBE (cont.)
  - RWQCB staff presentation/report to Regional Board
    - "middle course"
    - staff position paper
  - SWRCB cleanup and appeal decisions (ongoing...see WWW)
  - LLNL, UC, and Cal/Energy publish reports on MTBE
  - Prop 65 Scientific Committee says MTBE isn't a Prop 65 carcinogen or reproductive toxicant
  - US EPA appoints "Blue Ribbon" committee for review
  - DHS adopts secondary standard of 5 ppb (eff. 1/7/99)
  - RWQCB auditing sites for MTBE monitoring
  - Bureau of State Audit issues report on MTBE oversight critical of DHS and SWRCB, RWQCB, and LOPs

5

### What Else Happened in 1998? (cont.)

- Non-purge monitoring at UST sites (= non-problem???)
- ~~Containment Zones~~
  - no more adopted in Bay Area:
  - DTSC proposing a site north Richmond
  - another adopted in Northcoast
  - several candidates in region and around state
  - barely alive.....future?
- Adopted several PPAs and signed numerous "comfort letters" facilitating (re)development
- "Find a dry cleaner.... find a problem?" continues.....
- SWRCB (SB 562) appeals allow cleanups (for USTs) above MCLs via Res 92-49 "time factor"
- RWQCB adopted its first order for VOC site with natural attenuation (RP/Vantek)

6

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# Regulatory Review of 1998 and Forecast for 1999

## What Else Happened in 1998? (cont.)

- SF Bay RWQCB (internal/augmented) Groundwater Committee continues to review beneficial uses East Bay Plain for possible Basin Plan amendment
- CBE files Prop 65 notices on 4,000 USTs
  - Suits to follow??
- SF Bay RWQCB issues two sites its first "Certificate of Completion" under AB 2061
- State Superfund law sunsets
  - Emergency Corrective Action and AB 2061 reps adapted

7

## Mission Bay (1998)

- Early agreement on no useable (drinking water) groundwater resources within project
- Risk Based Decision Making
  - Levels protective human health and ecological receptors
- Site Conceptual Model was the "contract"
  - Drove investigation and remediation
  - Pathways of concern:
    - » Human Health @ surface
    - » Biological @ Bayside
- Accepted model of tidal dilution within groundwater before causing surface waters (ref. Yin and Mosher 1992)
  - conservative 10x dilution prior to discharge
- Prospective Purchaser Agreement for TPH chemicals only
- Awaiting Residual Risk Management Plan
- Certificate of Completion expected mid-1999

8

## Eastshore State Park (1998)

- Extrapolated "lessons learned" from Emeryville phase and the other Bayside cleanup projects
  - e.g. used for area tidal dilution model support process, etc.
- Risk Based Decision Making
  - Levels protective of human health and ecological receptors
  - Remediation or risk management for exceedances
- Site Conceptual Model
  - Developed risk model and table for ecological protection and public park use
- Found not all remediation is practical
  - Took an effort for density problem (extraordinary effort vs. minimal results expected)
- Issued Certificate of Completion Dec 18th...  
Land sold ... park exists December 24th...
- "Lessons Learned" ??

9

## 1998 Efforts of More Than Passing Interest (to me)

- SFIA tech reports from both Airport and tenants
- Three-dimensional investigation reports for Mohawk Chemical (Risk-Based Decisions et al)
- Recirculating Wells for VOC remediation for Mohawk Chemical (Risk-Based Decisions et al)
- Demonstration of plume stability for Phillips Petroleum at UST site in Concord (SECOR)
- On-site proposed VOC rapid oxidation for AMI in Cupertino (Fluor-Daniel/GTI)
- Shearwater Bayside Sediment Cleanup Proposal (Treadwell & Rollo)
- Use of Conceptual Site Model (Geomatrix)
- Silica Gel Cleanup (Geomatrix)
- Probabilistic risk analysis of site cleanup cost-benefits (Charlton International)

10

## 1998 Efforts of More Than Passing Interest (cont.)

- Brownfield (re)developments
- Charleston Business Park (Mountain View) investigation and remediation (Waterstone Environmental)
- Treatment of arsenic groundwater at Sherwin-Williams in Emeryville (Levine-Fricke-Recon et al)
- Risk Evaluation Model for Chevron USTs in Santa Clara County (PEG)
- Finalization of Investigation, Remediation, and Risk Management at Mission Bay for Catellus (Environ)
- Development of site cleanup Look-Up tables for Oakland's Land Renewal Program (L. Spence, Env Engr)
- Management of Investigation and Remediation at Eastshore State Park for Catellus (EKI)
- Any efforts by RWQCB staff that go beyond "normal"

11

## San Francisco International Airport #1(1999)

- In March 1999 RWQCB will consider revisions
- Propose revised TPH Tiered Cleanup Levels
  - Tier 0 - "walk away" finished, NFAR
  - Tier 1 Cleanup Standards
    - » default standards for each zone
  - Tier 2 Cleanup Standards
    - » unique site conditions
    - » individual site calculations for cleanup with review and comments of SFIA (and tenants) and approval of RWQCB
  - Tier 3 - Special Study

12

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## Regulatory Review of 1998 and Forecast for 1999

### San Francisco International Airport #2

- Proposed amendments (March 1999)
  - Update Tier 0 cleanup levels (technology: LTTD)

Pollutant	Soil (mg/kg)		Groundwater (mg/l)	
	1998	1999	1998	1999
TPH-g	10	100	.050	.6
TPH-j,d	50	200	.050	.2
BTEX (tot)	5	5	MCLs	.1
Benzene		0.5		.02

13

### San Francisco International Airport #3

- Proposed amendments (March 1999)
  - Update Tier 1 cleanup levels for SEPZ

Pollutant	Soil (mg/kg)		Groundwater (mg/l)	
	1998	1999	1998	1999
TPH-g	16	614	.050	3.7
TPH-j,d	68/68	339/360*	.050	.314/.314*

- Revise RMZ concept
- Amend application of the DAF
  - DAF = (Distance from Bay)/100 behind SEPZ

\* awaiting report submittal - most likely to be revised upward

14

### Forecast for 1999?

- Significant legislative action
  - Reauthorizing Federal and State Superfund (SB 47)
  - MTBE
  - Brownfields
  - Impacts to RWQCB:
    - risk and community involvement
    - administrative burdens w/o funding
- Significant changes in CalEPA, DTSC, SWRCB (Board members), and RWQCB (Board members)
  - probable impacts on policies and requirements
- Development of State UST cleanup policy
  - MTBE strategy and cleanups
- LLNL Releases Study on VOC plumes

15

### Forecast for 1999? (cont.)

- SF Bay RWQCB Basin Plan amendments for groundwater
  - Revision of Beneficial Uses
    - San Francisco, East Bay Plain, bayside areas
    - Competition for designating beneficial uses
    - Potential outcomes: different protection and cleanup strategies for designated areas
  - Pilot projects
  - others (e.g. NA of VOCs)???
- Brownfields projects
  - Emeryville implementation via MOU
  - Oakland ULRP
  - CCLR and others??
- More Natural Attenuation
  - via MNA or RNA or NA or ???

16

### Forecast for 1999? (cont.)

- SF Bay RWQCB (Toxics Cleanup Division) guidance for TPH analyses utilizing silica gel cleanup
- RWQCB updates NPDES general permit for treated VOC groundwater
  - potential for citizen suits and environmental advocacy "reports"
- Better use of Residual Risk Management Plans
  - Includes Deed Restrictions, Health & Safety Plans, etc.
- Further consolidation of Board groundwater staff to enhance consistency

17

### What Should Happen in 1999?

- We need a comprehensive groundwater management strategy.
  - Resource protective
  - Risk (i.e., science) and economics driven
  - Leads to rational site cleanup strategies
    - Persistent vs. non-persistent
  - Allows for rational prioritization
- Not in 1999 though.....
  - not a "hot" topic
  - but forums are available
  - maybe some "baby" steps

18