



State Water Resources Control Board Meeting

Item # 9

TMDLs for PCBs, OC Pesticides, and Sediment Toxicity in McGrath Lake



December 14, 2010





E.O Corrections & Public Comments

- E.O. Corrections

- 2 comments

- Responses



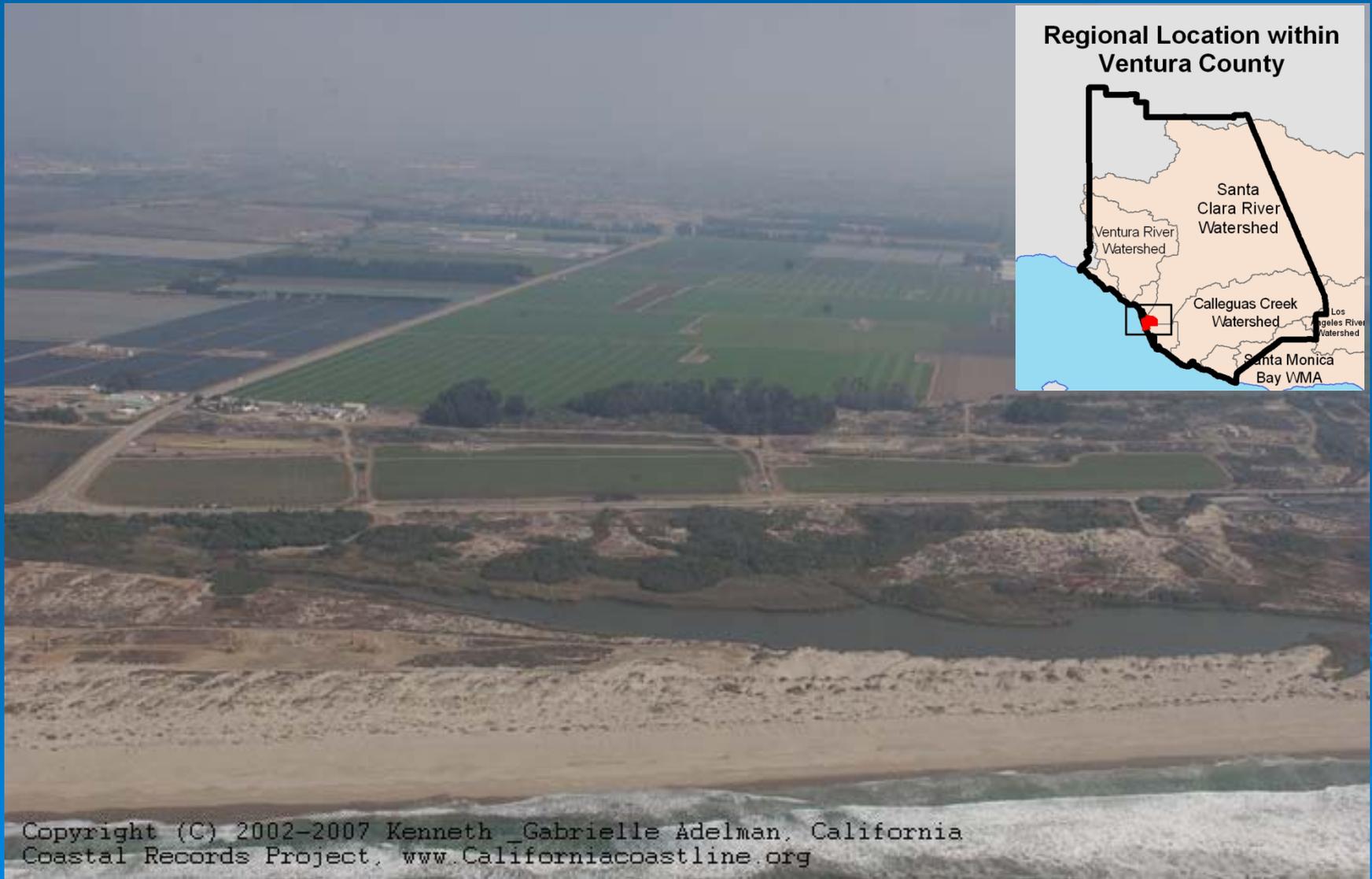


Recommendation

- Approval of the TMDL
- Questions



Environmental Setting



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Beneficial Uses

- EST
- WILD
- RARE
- WET
- REC 1
- REC 2
- COMM



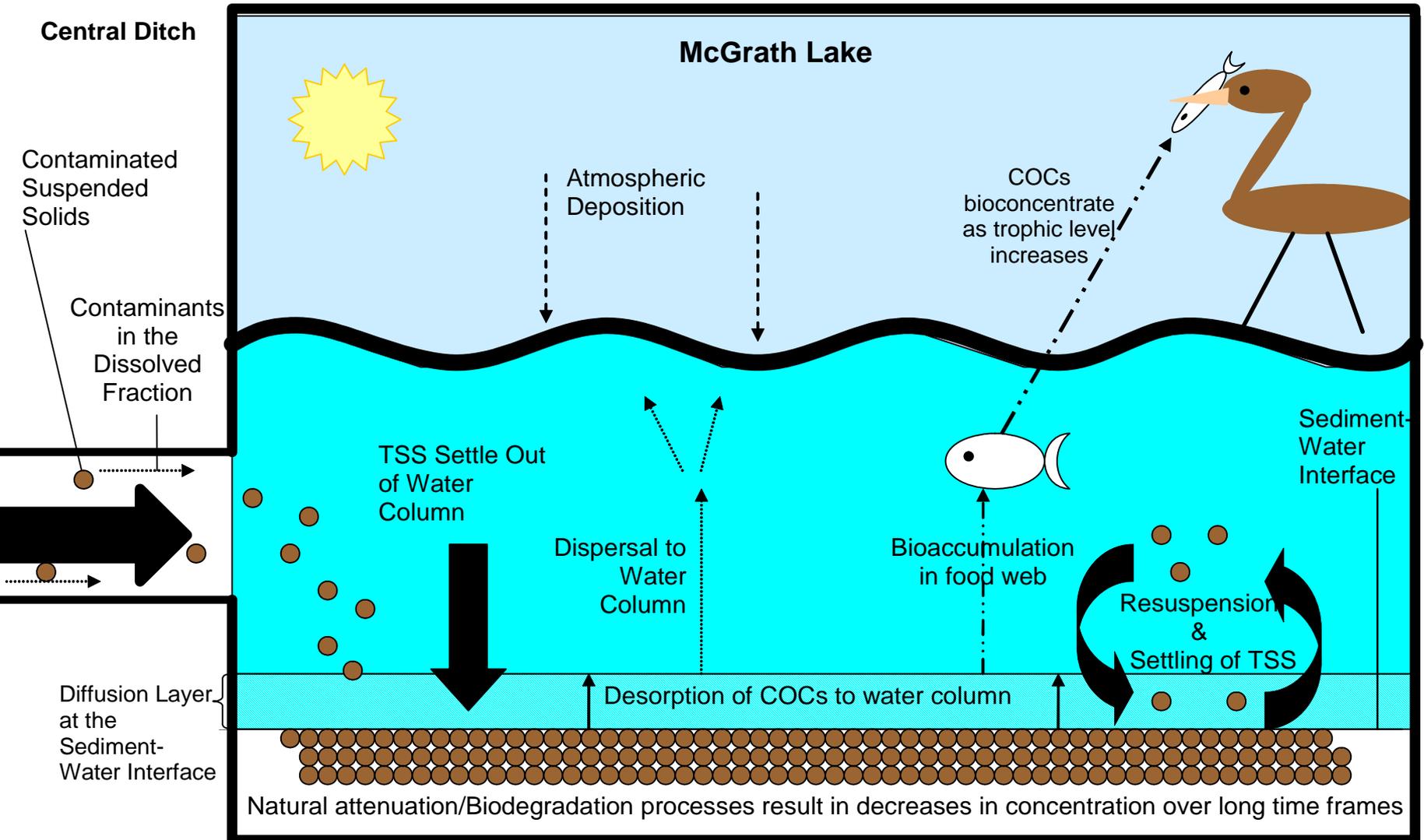
Impairments

➤ McGrath Lake 303(d) listings

- Chlordane (sediment)
 - DDT (sediment)
 - Dieldrin (sediment)
 - PCBs (sediment)
 - Sediment Toxicity
- BPTCP high priority toxic “hot spot”
 - Levels of PCBs & OC pesticides are some of the highest in state
 - Severely degraded sediment invertebrate community
 - Lake contamination is both a historical and current issue



Conceptual Model



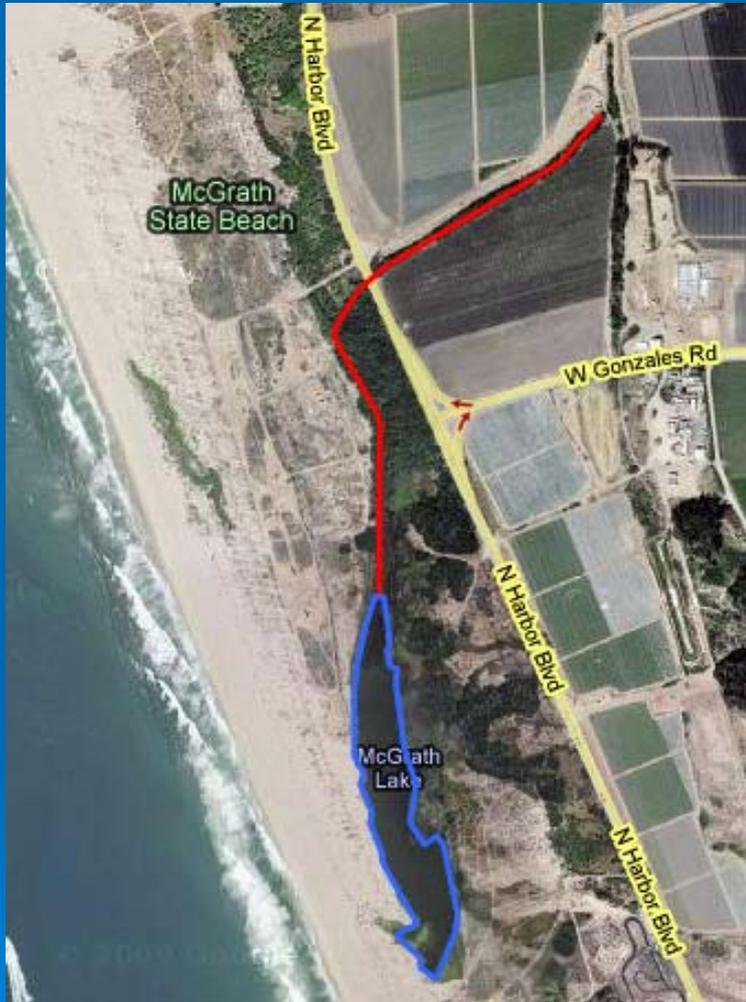
Numeric Targets

Pollutant	Water Column Targets ($\mu\text{g/L}$)	Sediment Targets ($\mu\text{g/dry kg}$)
Chlordane	0.00059	0.5
Dieldrin	0.00014	0.02
4,4'-DDT	0.00059	1
4,4'-DDE	0.00059	2.2
4,4'-DDD	0.00084	2
Total DDT	--	1.58
Total PCBs	0.00017	22.7

Allocations

- No waste load allocations for point sources
- Load Allocations for non-point sources equal to numeric targets:

Pollutant	Central Ditch		Lake
	Water Column ($\mu\text{g/L}$)	Suspended Sediment ($\mu\text{g/dry kg}$)	Sediment
Chlordane	0.00059	0.5	0.5
Dieldrin	0.00014	0.02	0.02
4,4'-DDT	0.00059	1	1
4,4'-DDE	0.00059	2.2	2.2
4,4'-DDD	0.00084	2	2
Total DDT	--	1.58	1.58
Total PCBs	0.00017	22.7	22.7



Implementation Plan

➤ Implementation will be divided into two phases

1. Implementation of Central Ditch
LAs for agricultural non-point
source discharges



2. Implementation of LAs
contaminated lake sediment





Phase 1 Implementation- Central Ditch LAs

- Implemented through the Conditional Waiver
- Implementation actions may include:
 - On-Farm BMPs
 - Regional sub-watershed BMPs
 - Regional Treatment System
 - Redirect Agricultural Drainage
- 10-year implementation schedule



Phase 2 Implementation- Lake Sediment LAs

- Implemented through a MOA which would:
 - Allow cooperative parties to jointly develop a work plan;
 - Secure funding;
 - Implement sediment remediation strategies; and
 - Achieve lake load allocations
- If MOA unsuccessful, other regulatory orders will be issued
- Lake Sediment LAs attained within 14 years





Monitoring Plan

Phase 1-Central Ditch LAs

- MRP subject to EO approval
- Monitoring will occur throughout implementation schedule
- Sample water & sediment

Phase 2-Lake LAs

- Plan developed as part of MLWP
 - Monitoring to begin after Central Ditch LAs are attained
 - Sediment Toxicity Monitoring
 - Implementation path may require additional monitoring
- 



Recommendation

- Approval of the TMDL
- Questions

