

Environmental Monitoring at City College of San Francisco: Leveraging Partners and Collaborators as co-educators

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Outline

- Environmental Monitoring Certificate (& courses)
- Partners/collaborators
- Challenges
- What does our future hold?

Environmental Monitoring Certificate

● Core Courses:

- BIO/SUST 31: Introduction to Environmental Science
- *EMSA 22: Foundations in Environmental Instrumentation, Sampling and Monitoring
- *EMSA 28: Environmental Microbiology Methods
- *GEOG 110: Introduction to GIS

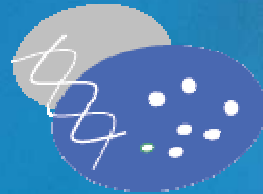
● Optional course work:

- *EMSA 30A: Water quality analysis by anion-based chromatography
- *SUST 5: Sustainability and the Environment Speaker Series
- GEOL 30: Environmental Geology
- GEOL 30L: Environmental Geology Lab
- CHEM 110: Chemistry and the Environment

*Courses were funded in part or whole by the c3bc grant.

Partners/Collaborators

- **Industry:** Training on methods and equipment; class tours; questions/expertise



cel analytical, inc.
water, wastewater, and soil laboratory services

- **Public Utilities:** Work-based learning opportunities – speakers, tours, internships, reagents



Governmental Agencies

- National Park Service (NPS): problem based learning – example Crissy Marsh

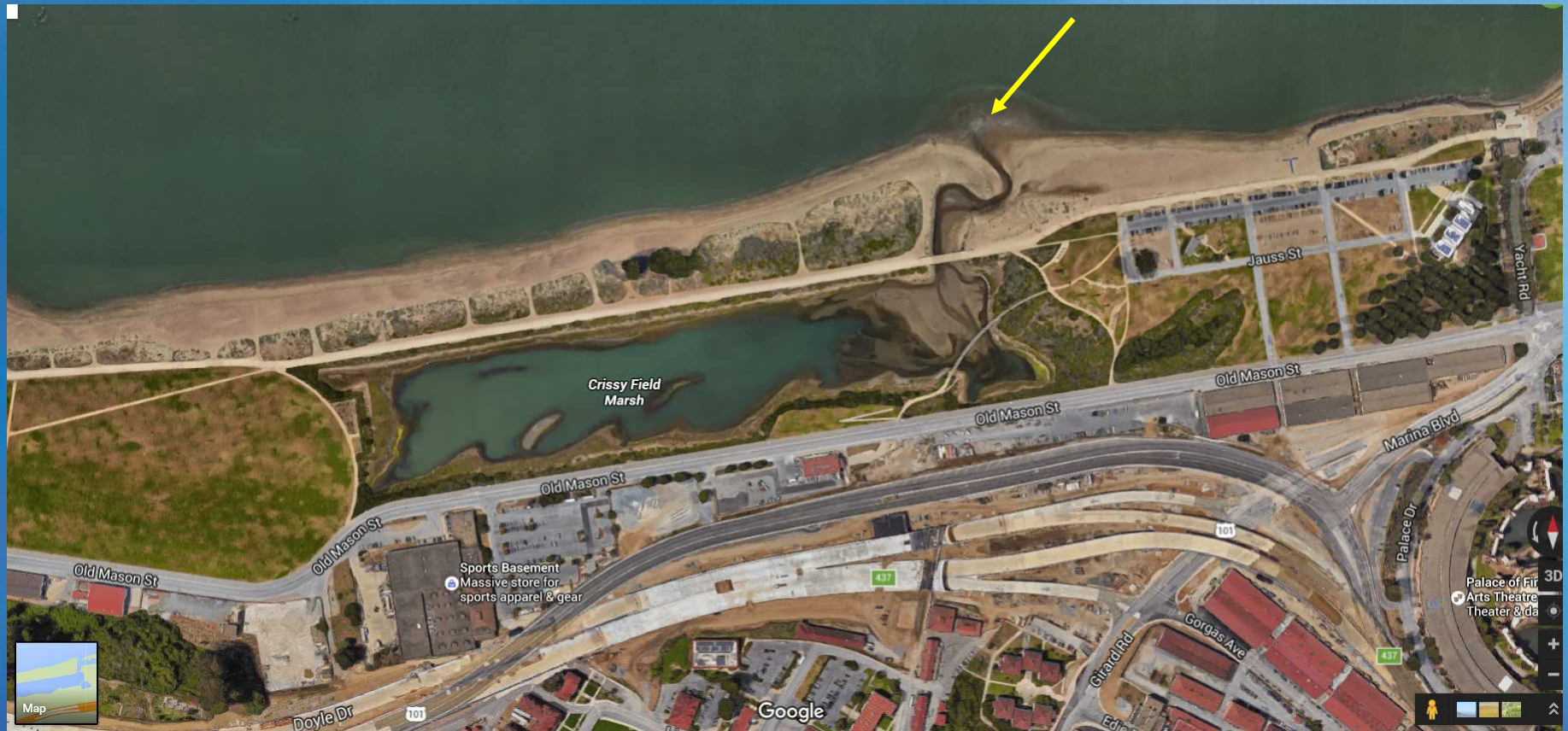


Crissy Marsh



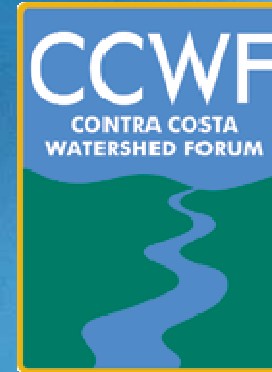
Crissy Marsh

Coliform counts
from the inlet

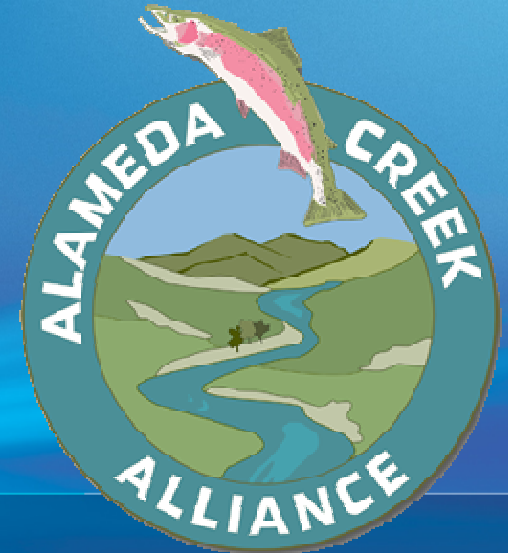


Google Map

Non-Profit Organizations



- Problem based learning; internships; help with sampling plans (objectives to monitoring and when/how to monitor); shared opportunities for training by students/for students



Challenges

- Enrollment – threat of cancellation
- Marketing – getting the word out
- Space for equipment – money for program, after grant sunsets
- Staffing (reliable instructors)

What does our future hold?

- Work with the different departments, earth science, biology, chemistry for marketing; incorporate monitoring curricula and equipment into their courses
- High school – dual enrollment?
- Community Based Organizations (Hunters Point Family – large EPA grant for environment work)
- Grants from EPA, CA Dept of Fish and Wildlife (environmental education, training, etc)
- *Entrepreneurship: Non-profit status to provide services to non-profits in analysis and field monitoring*

Students sharing their knowledge

- May 20 – Contra Costa Watershed Forum



Students Sharing their Knowledge

- June 4 Bioblitz – CalAcademy & SPAWNERS



Thank you!

