

Web-based Data Sharing for Small Watersheds

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MOTIVATION:

- **Mechanism to share data among volunteers and employees at**
 - **City of Palo Alto**
 - **San Francisquito Watershed Council**
- **Public Outreach and Education**

PROJECT SCOPE:

GOALS

- **Address data-sharing needs among employee and volunteer creek monitors**
- **Provide educational tool for public**

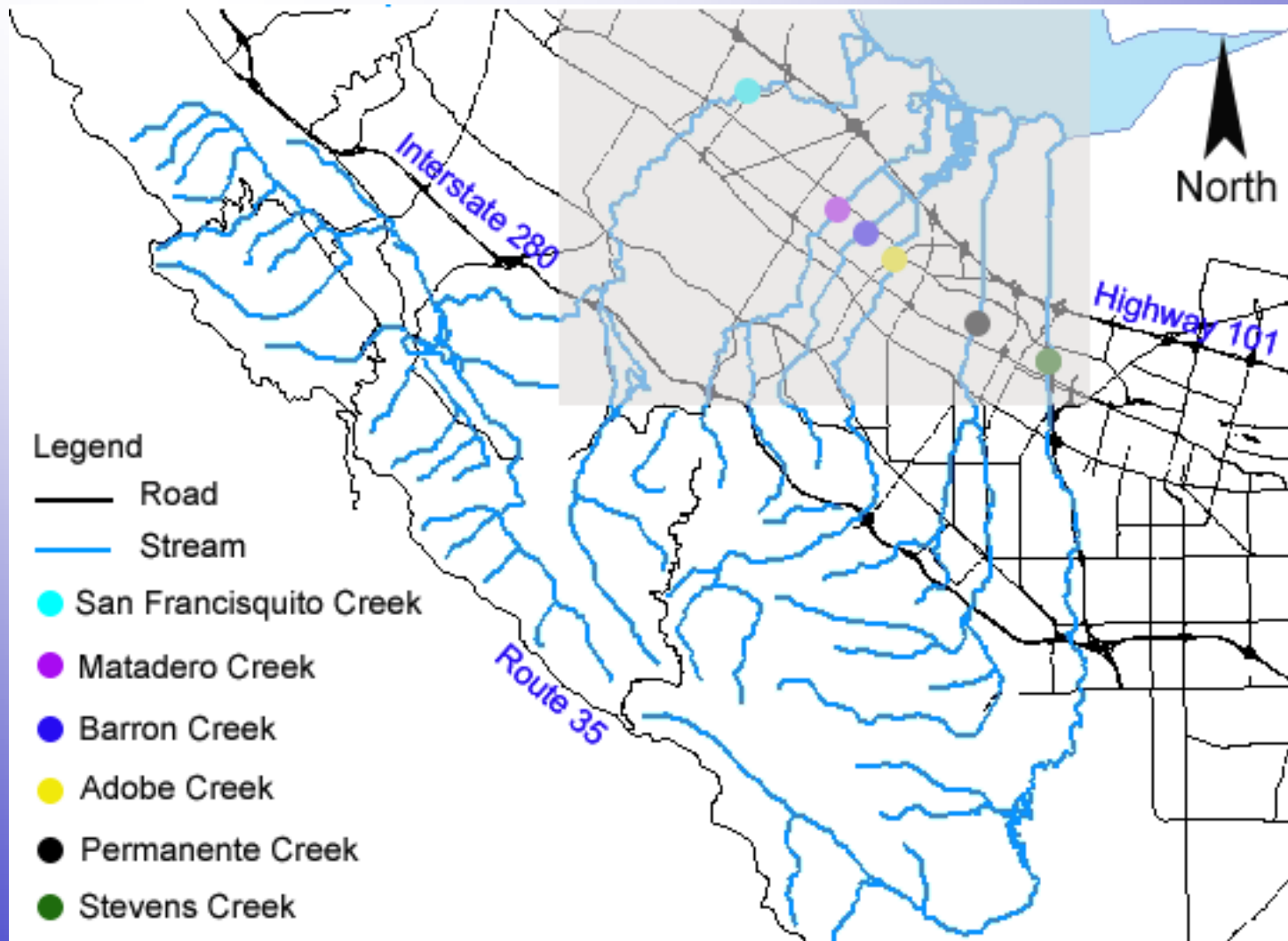
CONSTRAINTS

- **Completed in ten weeks**
- **Not GIS-based**

OVERVIEW OF PRODUCT:

- **Interactive map of creek monitoring locations**
- **Photographs and 360° views**
- **Data for downloads**
- **Graphs and tables of data to view online**

HOMEPAGE MAP:



Close-up of Downtown Palo Alto Creeks:



Long-Term Monitoring and Assessment Project (LTMAP) Site at Newell Road:



- [Key Pollutant Summary](#)
- [View Data and Graphs of All Pollutants](#)
- [View Data and Graphs by Storm Event](#)
- [Analytical Reports](#)
- [Virtual Tour](#)
- [Google Satellite Map](#)

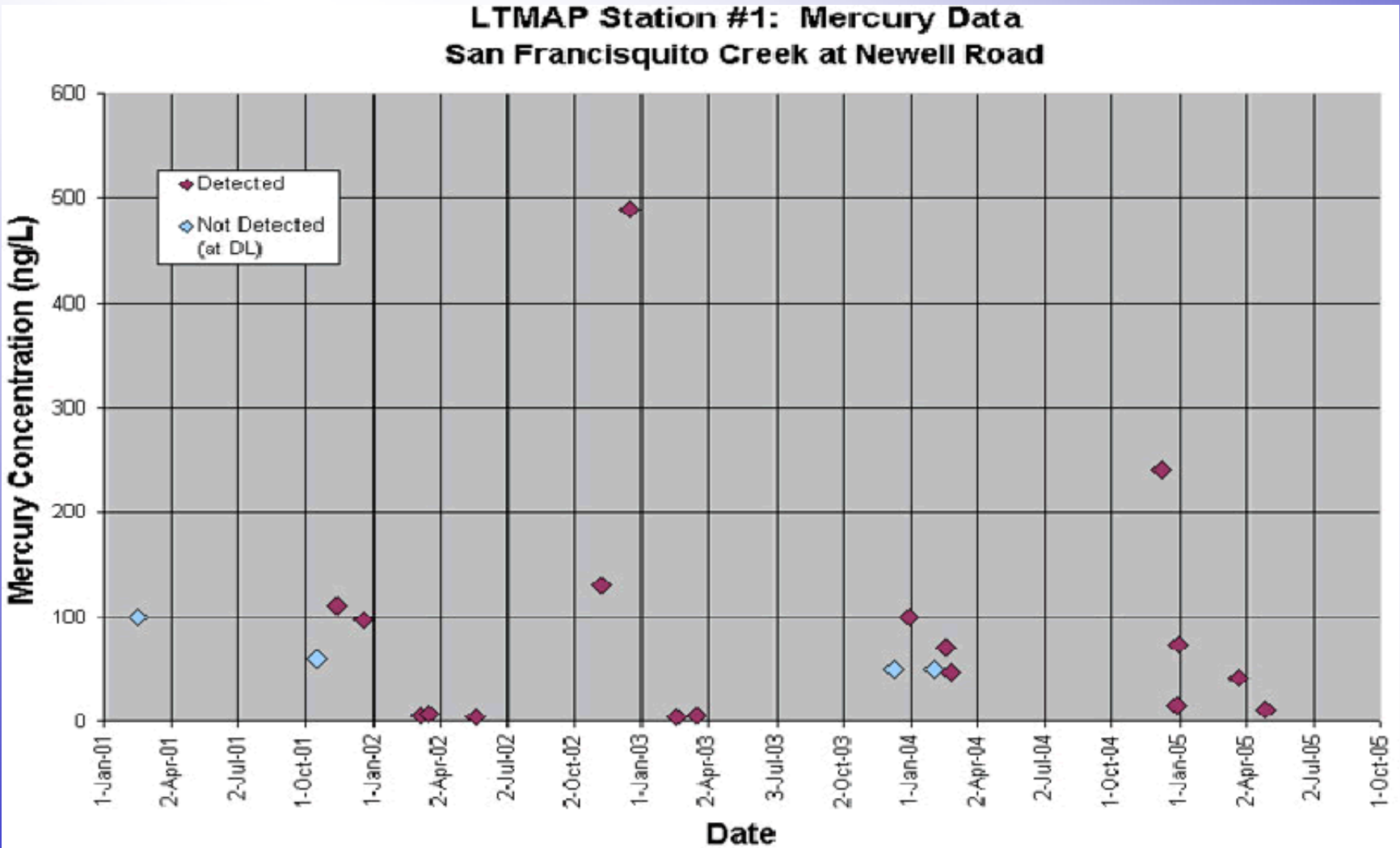
EXAMPLE DATA TABLE

MERCURY CONCENTRATIONS OVER TIME:

Sample Date	Grab/Composite	Parameter	Result	Units	Detection Limit	Laboratory
15-Feb-01	Grab	Mercury	ND	ng/L	100	RWQCP
17-Oct-01	Grab	Mercury	ND	ng/L	60	RWQCP
12-Nov-01	Grab	Mercury	110	ng/L	60	RWQCP
20-Dec-01	Grab	Mercury	97	ng/L	60	RWQCP
6-Mar-02	Grab	Mercury	5.1	ng/L	0.5	Caltest
18-Mar-02	Grab	Mercury	6.8	ng/L	0.5	Caltest
21-May-02	Grab	Mercury	4.6	ng/L	0.5	Caltest
8-Nov-02	Grab	Mercury	130	ng/L	50	Caltest
16-Dec-02	Grab	Mercury	490	ng/L	2.4	Caltest
18-Feb-03	Grab	Mercury	4.6	ng/L	0.5	Caltest
16-Mar-03	Grab	Mercury	4.9	ng/L	0.5	Caltest
11-Dec-03	Grab	Mercury	ND	ng/L	50	Caltest
31-Dec-03	Grab	Mercury	100	ng/L	50	Caltest
3-Feb-04	Grab	Mercury	ND	ng/L	50	Caltest
18-Feb-04	Grab	Mercury	70	ng/L	50	Caltest

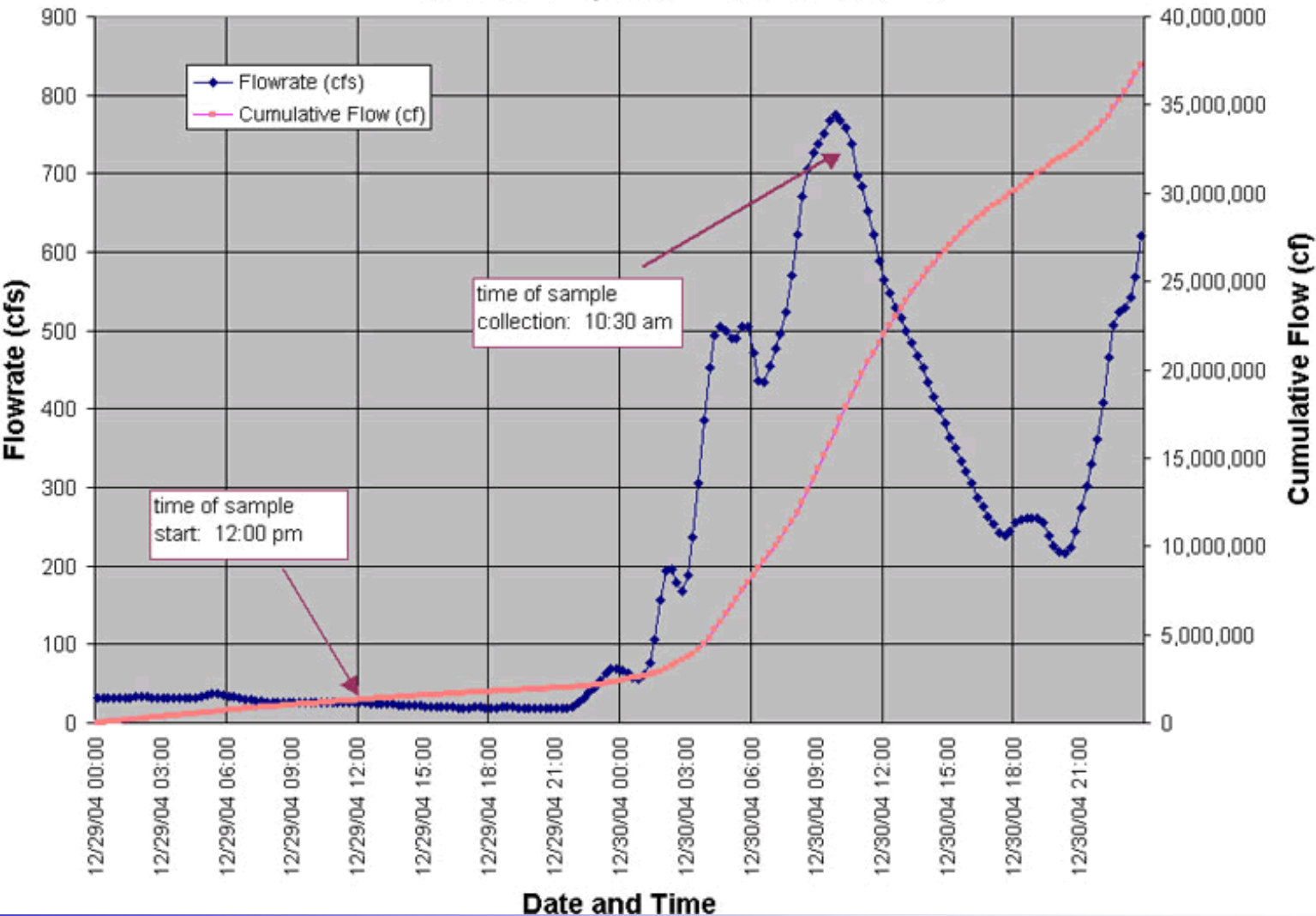
EXAMPLE GRAPH

MERCURY CONCENTRATION OVER TIME:



EXAMPLE HYDROGRAPH:

LTMAP Station #1: December 29-30, 2004 Composite Sample
San Francisquito Creek at Newell Road

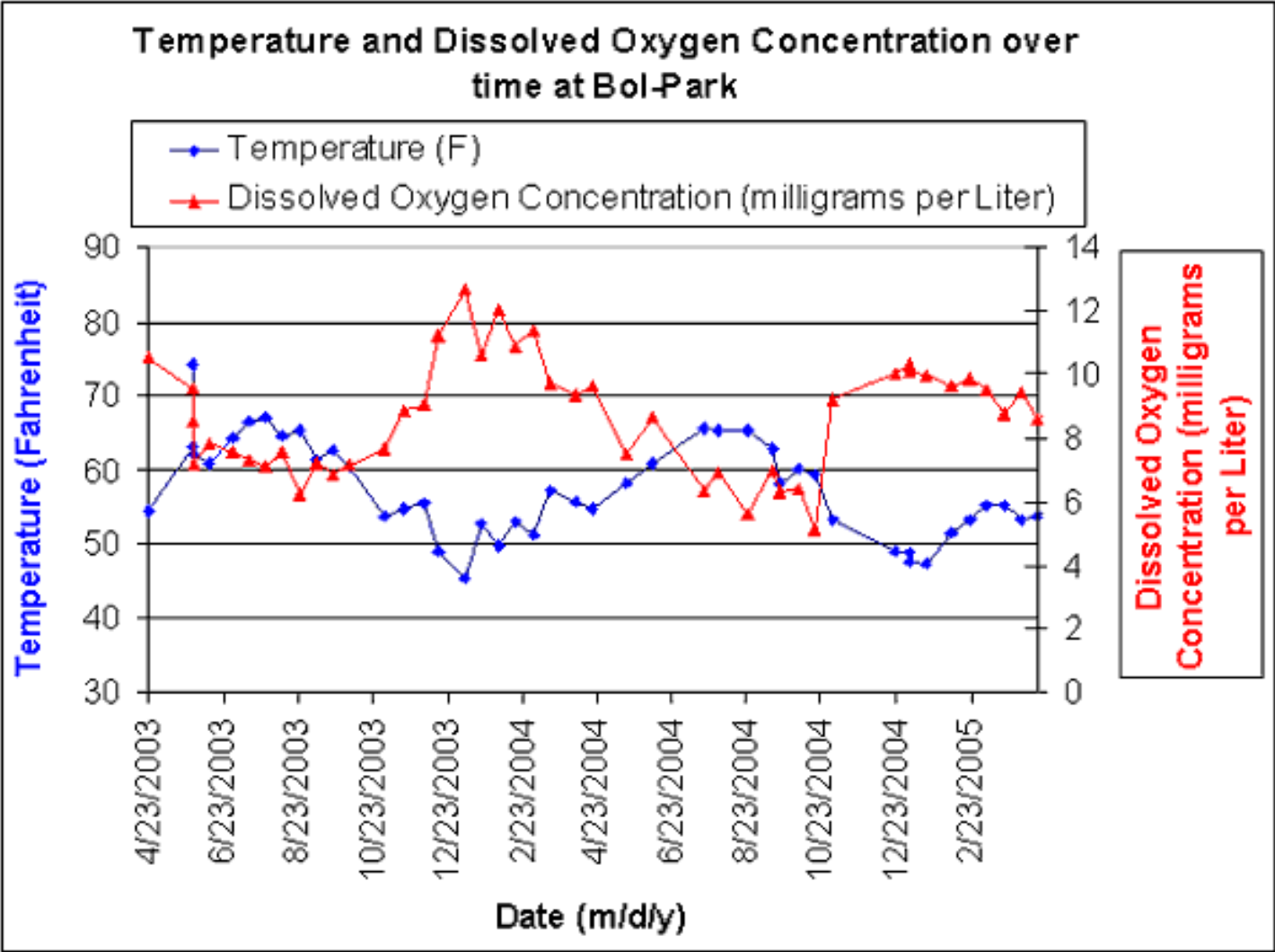


Matadero Creek at Bol Park:

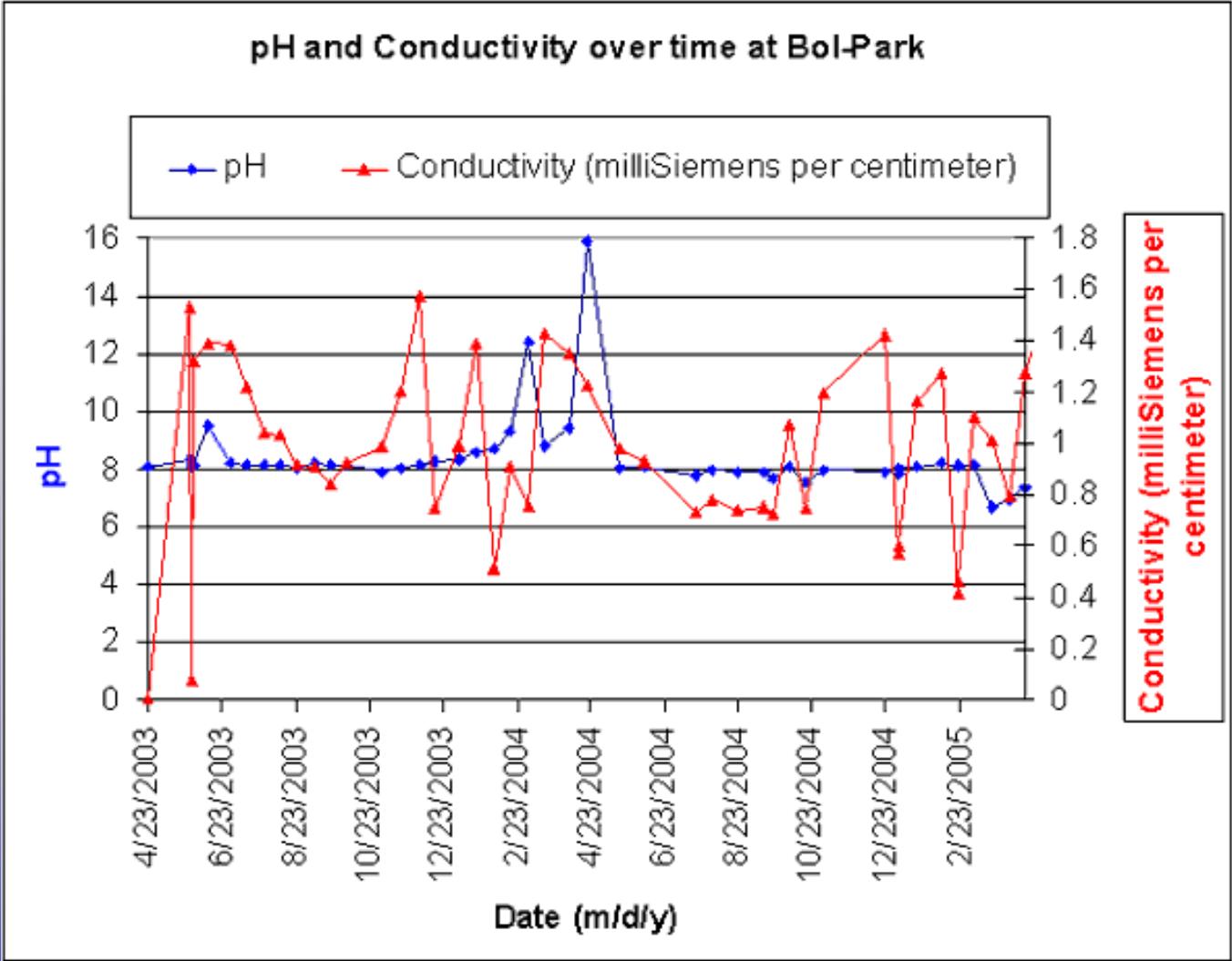


- [Graph of Dissolved Oxygen and Temperature](#)
- [Graph of pH and Conductivity](#)
- [Data Tables](#)
- [Virtual Tour](#)
- [Google Satellite Map](#)

Graph of Dissolved Oxygen and Temperature on Matadero Creek at Bol Park:



Graph of pH and Conductivity on Matadero Creek at Bol Park:



ISSUES:

- **Small watersheds with limited resources**
- **Absence of quality control**
- **Perceived need to interpret the data before making it publicly available**

FURTHER DEVELOPMENT:

- **Respond to public concerns about data quality**
- **Expand functionality to include dynamic graphing and data querying**
- **Provide regular updates of publicly available data**
- **Expand geographic area as volunteers collect more data**

ACKNOWLEDGEMENTS:

- **City of Palo Alto: Brad Eggleston, Phil Bobel, Environmental Compliance Division Employees and Volunteers**
Photography Credits: Jesse Smith
- **San Francisquito Watershed Council: Pam Sturner, Volunteers**
- **USGS: Alicia Torregrosa, Jennifer Shanks**

WEBSITE LOCATION:

<http://www.cityofpaloalto.org/cleanbay/creeks>