

Austin Creek Summary Report 2004

Community Clean Water Institute

6741 Sebastopol Ave. Ste. 140

Sebastopol, CA 95472

(707) 824-4370 www.ccwi.org

Thank you for your interest in the health of your watershed!

The data in this report was collected by: Dennis Beall and CCWI staff as part of Community Clean Water Institute's Citizen Monitoring Program. For more information, contact Community Clean Water Institute at (707) 824-4370, or info@ccwi.org

About Citizen Monitoring:

Citizen monitoring is monitoring of the environment by community volunteers interested in watershed protection. By monitoring local creeks and rivers, citizen monitors learn about their watershed, help pinpoint pollution sources, and identify widespread problems. The data can provide the information needed to develop restoration projects or pollution prevention measures.

Community Clean Water Institute (CCWI) is dedicated to promoting and protecting clean water and public health by identifying water pollution, advocating for sound water policies, and providing information to the public. CCWI works with citizen groups to develop and support citizen monitoring programs.

CCWI Permissions to Use Data:

The data in this report is intended to be used for informational and educational purposes. According to CCWI's Data Permissions Policy, Watershed Groups, Regulatory Agencies, and others interested in the protection of clean water are permitted to use data collected by CCWI under the following conditions:

- 1) All public use of data must be accompanied by the words, "This data was collected by Community Clean Water Institute. For more information, check www.ccwi.org."
- 2) Data may not be used for the purpose of litigation or lawsuits.

Site Descriptions:

Austin Creek Watershed		
Site Name	GPS	Site Description
AUS010	38°29.024" N 123°03.213" W	First bridge, confluence with Russian River
AUS020	38°29.373" N 123°03.679" W	1180 Austin Creek Rd.
AUS030	38°31.500"N 123°05.328" W	Cazadero Bakery, just upstream of large culvert

AUS030: East side of bank approximately 50 yards from the 4th bridge off Cazadero Highway, near bakery. Access from a minor road along creek off the Highway. During the summer, it was a large pool with many small fish under the bridge on the west side. Winter flows found it a wide, shallow riffle run with numerous pockets and gravel bars.

AUS020: Here the channel is much narrower, although the gravel bed extends much farther to the east of the wetted width. Access is through an adjacent property. The stream meanders here and is cutting into the west bank. The vegetation overhangs much of the channel, and the habitat appears to be shallow, fast riffle run.

AUS010: Downstream of Green Bridge, the first bridge accessible from Old Cazadero Hwy. The west side of stream can be reached by a gravel trail in drier times, wetter weather requires sampling from bridge. During summer, this site becomes isolated stagnant pools all the way to the mouth. The channel is more narrow, and the water deeper during high flows than the other sites. This site is skimmed for gravel throughout the summer.

Sampling Conditions:

Date	Time	Air Temp(C)	Weather
2/20/2004	12:41 PM	9	Overcast recent rain
3/13/2004	12:39 PM	20	Sunny
4/27/2004	12:09 PM	21	Sunny
5/25/2004	12:15 PM	23	Overcast
6/22/2004	3:10 PM	26	Sunny
7/21/2004	4:30 PM	37	Sunny
8/31/2004	11:39 AM	17	Sunny
9/28/2004	11:57 AM	17.5	Overcast
10/26/2004	11:43 AM	16.5	Cloudy recent rain
11/24/2004	1:48 PM	18	Sunny

Statistical Analysis Definitions:

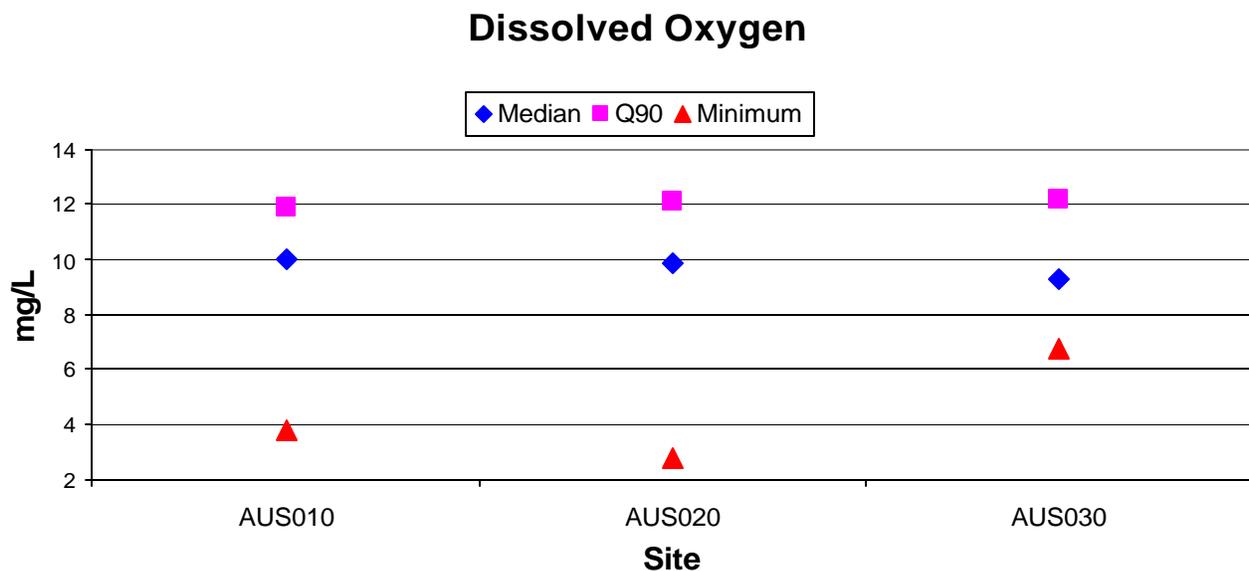
Outliers: anomalous values in the data, the unusually high or low numbers in a data set

Median: the middle of a distribution, half the data is above the median and half below. The median is used instead of the mean or average because it is less sensitive to outliers

Q90: the 90th percentile, means that 90% of the data falls below this number. The Q90 is used to eliminate the higher outliers

Minimum: the lowest number in the data set

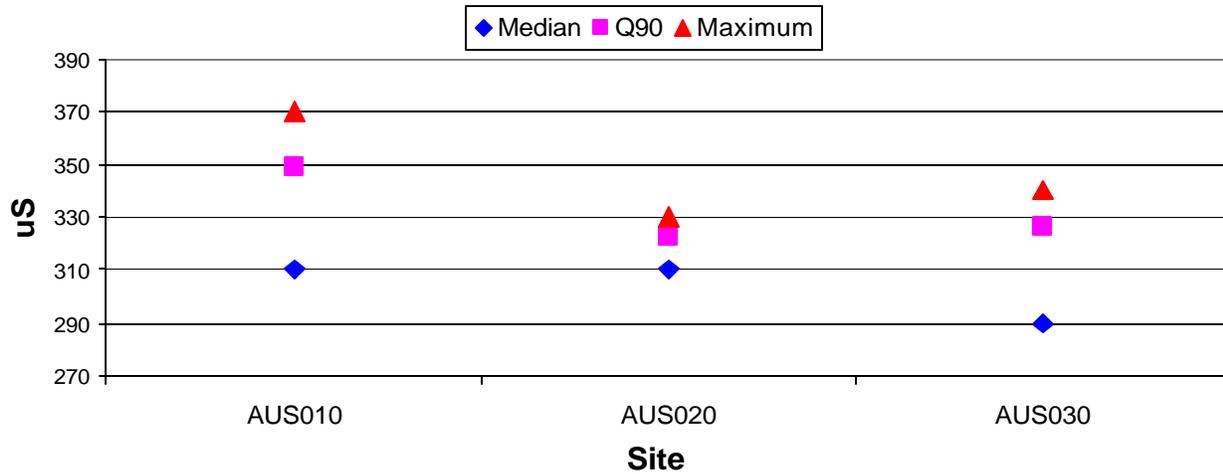
Maximum: the highest number in the data set



Instrument: ICM Portable Dissolved Oxygen Meter

The highest concentrations of dissolved oxygen were found at AUS010 with a median of 10.0 mg/L. The lowest concentrations were at AUS030 with a median of 9.3 mg/L. Although AUS030 had the lowest median dissolved oxygen levels, it also had the highest Q90 of 12.2 mg/L and the highest minimum value of 6.7 mg/L.

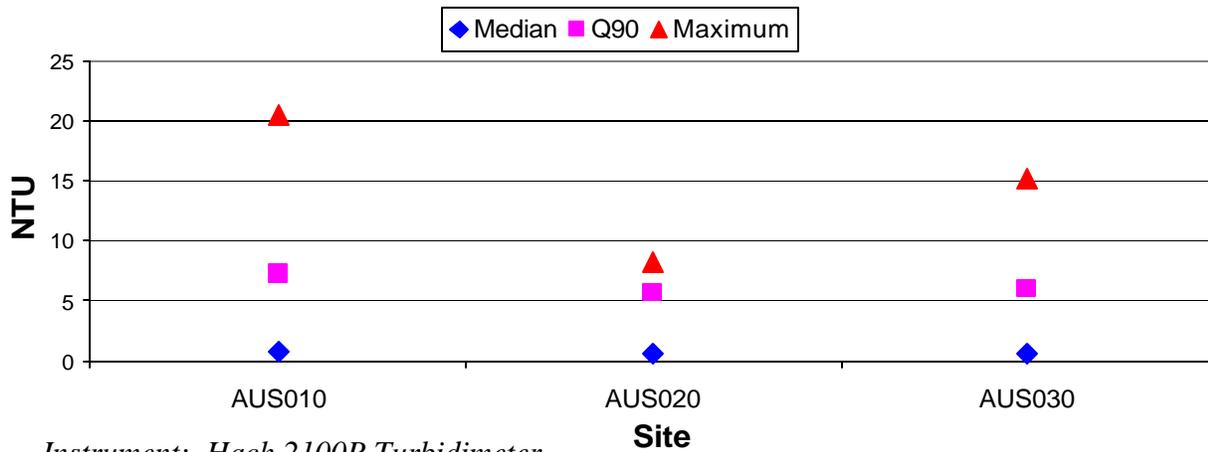
Conductivity



Instrument: Oakton ECTestr

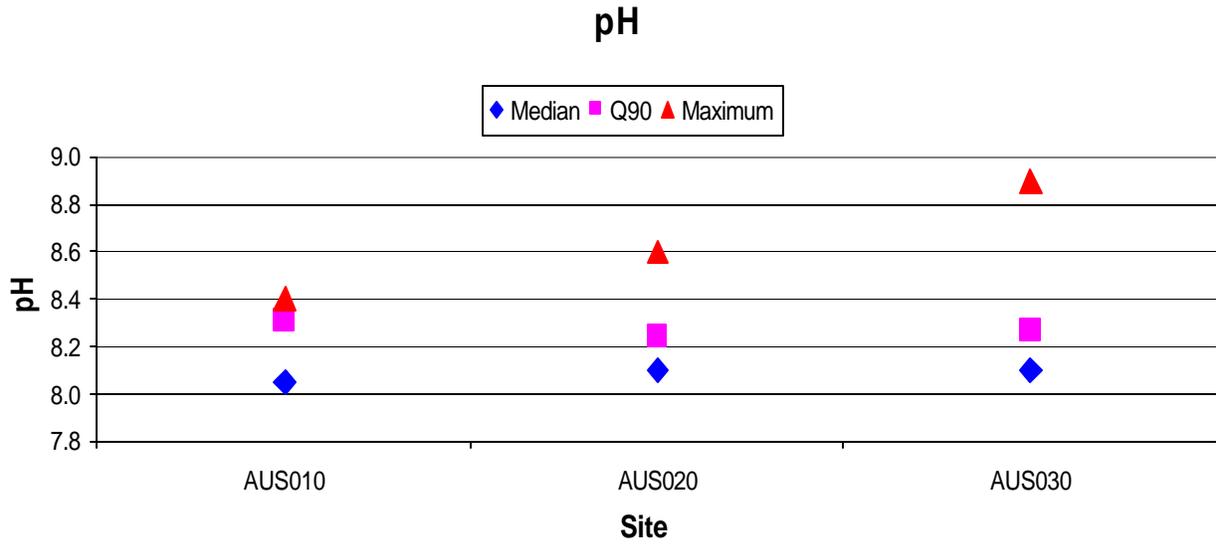
Both AUS010 and AUS020 had the highest conductivity. They both had a median of 310 uS but AUS010 had a higher Q90 value of 349 uS. The lowest measurements were at AUS030 with a median of 290 uS.

Turbidity



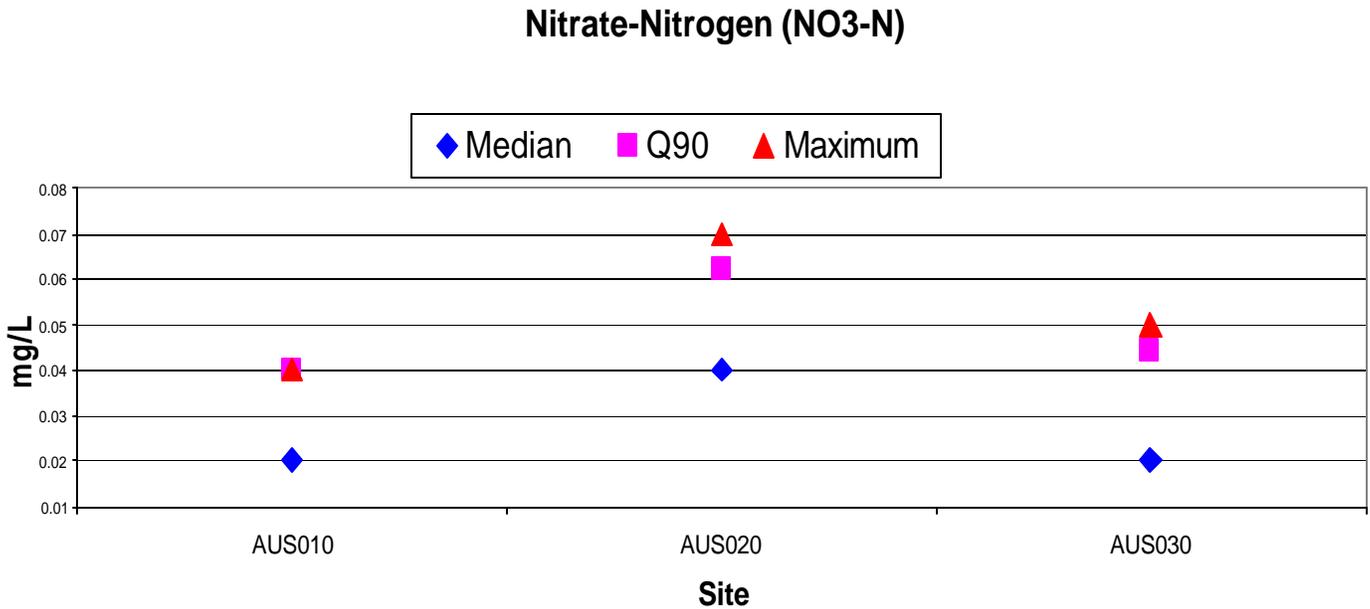
Instrument: Hach 2100P Turbidimeter

All three sites of Austin Creek had fairly close turbidity readings. The highest turbidity measurements were at AUS010 with a median of 0.75 NTU and a Q90 of 7.22. The lowest turbidity was found at AUS020 with a median of 0.63 NTU and a Q90 of 5.59.



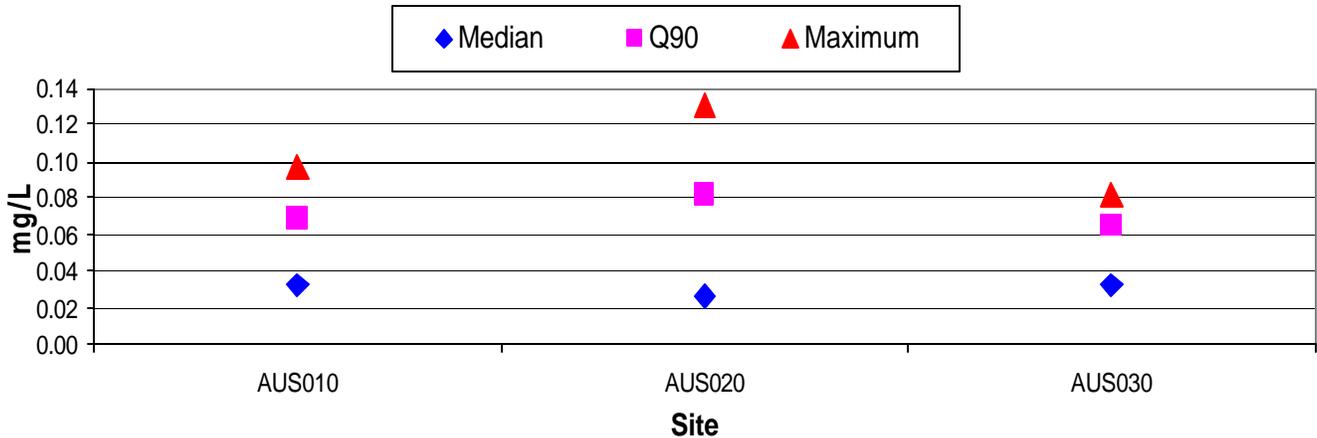
Instrument: Oakton double-junction PHTestr

The pH was fairly constant over the three sites. Although they all had a median pH of 8.1 AUS030 had a higher maximum of 8.9 and AUS01 had a lower maximum of 8.4.



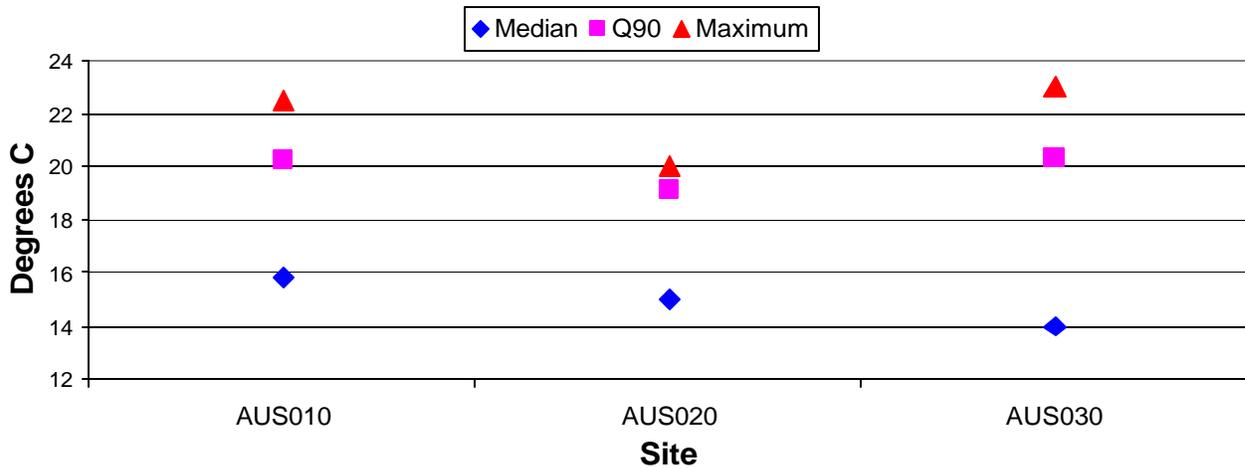
AUS020 had the highest concentration of Nitrate with a median of 0.04 mg/L and a maximum value of 0.07. AUS010 had the lowest nitrate concentration with a median of 0.02 mg/L and a maximum value of 0.04.

Phosphate-Phosphorus (PO₄-P)



Both AUS010 and AUS030 had the highest phosphate concentrations with a median of 0.0326 mg/L. AUS020 had the lowest median level of 0.0261 mg/L but the highest Q90 of 0.0815 and a maximum value of 0.1305 mg/L.

Water Temperature



Instrument: Bulb Thermometer

Water temperature showed a decrease as you moved up stream. AUS010 had the highest median measurement of 15.8 degrees, AUS020 was 15.0 degrees, and AUS030 was only 14.0 degrees Celsius.