

# State Water Project

## Monthly Water Quality Summary

November 11 to December 7, 2009

**Electrical Conductivity:** EC increased at Harvey O. Banks Pumping Plant (HBP), and Check 41, but decreased at, Devil Canyon, Barker Slough and Vellecitos from November 11 to December 07, 2009. Concentrations ranged from 251  $\mu\text{S}/\text{cm}$  to 517  $\mu\text{S}/\text{cm}$  (148mg/L to 310mg/L), below the Article 19 Monthly Average Objective of 440 mg/L (733  $\mu\text{S}/\text{cm}$ ). Daily average concentrations varied at all the locations. As of December 07, 2009, the lowest and highest concentrations of 251  $\mu\text{S}/\text{cm}$  and 495  $\mu\text{S}/\text{cm}$  occurred at Barker Slough and HBP, respectively. Concentrations increased this month at HBP from 426  $\mu\text{S}/\text{cm}$  to 495  $\mu\text{S}/\text{cm}$ .

**Bromide:** Concentrations exceeded the California Bay Delta Authority (CBDA) Objective of 0.05 mg/L at all locations and ranged from 0.09 mg/L to 0.25 mg/L. As of December 07, Vellecitos had the lowest concentration of 0.17 mg/L, followed by Check 41 with 0.18 mg/L, while the highest concentration of 0.23 mg/L occurred at HBP. Concentrations at HBP increased this month, from 0.18 to 0.23 mg/L as of December 07, 2009. Bromide concentrations are calculated values using linear regression equations using EC concentrations and are not as accurate as bromide concentrations from laboratory analysis.

**Turbidity:** Turbidity levels decreased at all locations this month. Turbidity levels ranged from 1.1 NTU to 61.1 NTU. On December 07, 2009, the lowest level of 1.1 NTU occurred at Devil Canyon, while the highest level of 37.8 NTU occurred at Barker Slough. HBP mean daily turbidity levels decreased from 6.2 NTU on November 11 to 5.6 NTU as of December 07, 2009.

**Dissolved Organic Carbon (DOC):** Average daily concentrations decreased from 2.4 to 2.2 mg/L at HBP, from 2.9 to 2.5 mg/L at Check 13 and from 4.3 to 1.8 mg/L at Edmonston Pumping Plant.

**Taste and Odor Compounds:** MIB and geosmin concentrations in the SWP remained low project-wide, ranging from non-detect to 4 ng/L. Several readings were taken this month at Clifton Court inlet, HBP, Del Valle Check 7, O'Neill Forebay Outlet at Check 13 and Pacheco Pumping Plant as of November 16, 2009.

**Pump-ins:** Pump-ins to the State Water Project (SWP) totaled 56,545 acre-feet (AF). The break down of the total volume was:

- Arvin Edison Water Storage District = 8,815 AF
- Kern Water Bank Authority (who operate the Kern Water Bank Canal) = 15,961 AF
- Kern County Water Agency (who operate the Cross Valley Canal) = 21,072 AF
- Semitropic Water Storage District = 10,697 AF.
- Wheeler Ridge Water Storage District (WRM) = 0 AF.

**Note:** The intent of the monthly water quality summary is to acquaint contractors, scientists, and interested parties with the status of water quality in the State Water Project (SWP). Your comments, questions, and suggestions are welcome and can be directed to Cindy Garcia at 916-653-7213, or Austine Eke at 916-653-7227. To view water quality data from the automated stations along the SWP, visit:

[http://www.water.ca.gov/swp/waterquality/AutostationData/Autostation\\_map.cfm](http://www.water.ca.gov/swp/waterquality/AutostationData/Autostation_map.cfm) and click on a station name on the map to link to the station's data on the California Data Exchange Center (CDEC) website.

To view the Edmonston's daily AF pumping data, visit [www.water.ca.gov](http://www.water.ca.gov). Click on the "State Water Project" tab, and click on the "Operations Control" link. Look under the "Project-Wide Operations" header for the "Dispatcher's Daily Water Report."

## SWP Monthly Water Quality Report

### DWR Operations & Maintenance Water Quality Automated Station Data from November 11 to December 7, 2009

Automated sampling stations provide real time data by continuously measuring water quality conditions in the California Aqueduct.

Water Quality Parameters	Objective	Range	Harvey O. Banks PP KA000331	Check 29 KA024454	Check 41 KA030341	Devil Canyon KA041288	NBA at Barker Slough KG000000	Vallecitos KB002250	Check 13 O'Neill Forebay Outlet KA007089	Edmonston PP Milepost 293.45
EC (µS/cm)	733*	average	415		392	491	252	417		
		11/11/09	426	***	401	517	277	434		
		12/07/09	495		426	453	251	416		
Bromide (mg/L)	0.05**	average	0.17		0.16	0.23	0.07	0.17		
		11/11/09	0.18		0.16	0.25	0.09	0.19		
		12/07/09	0.23	***	0.18	0.20	-	0.17		
Turbidity (NTU)		average	6.9		3.6	1.4	51.6	4.1		
		11/11/09	6.2		4.9	1.3	61.1	8.4		
		12/07/09	5.6	***	2.9	1.1	37.8	3.3		
DOC (mg/L)	3.0**	average	2.4						2.4	2.4
		11/11/09	2.4						2.9	4.3
		12/07/09	2.2						2.5	1.8
<b>Taste &amp; Odor Parameters</b>	<b>Range</b>	<b>Clifton Court KA000000</b>	<b>Harvey O. Banks PP KA000331</b>	<b>Lake Del Valle, Check 7 KB001632</b>	<b>Check 13 O'Neill Forebay Outlet KA007089</b>	<b>Check 41 KA030341</b>	<b>Check 66 KA040341</b>	<b>Castaic Lake</b>	<b>Pacheco PP</b>	<b>Silverwood Lake</b>
MIB (ng/L)	11/16/09	2	2	ND	2	No data	No data	No data	ND	No data
Geosmin (ng/L)	11/16/09	4	2	ND	3	No data	No data	No data	ND	No data

\* Article 19 Monthly Average (converted from 440 mg/L to 733µS/cm)

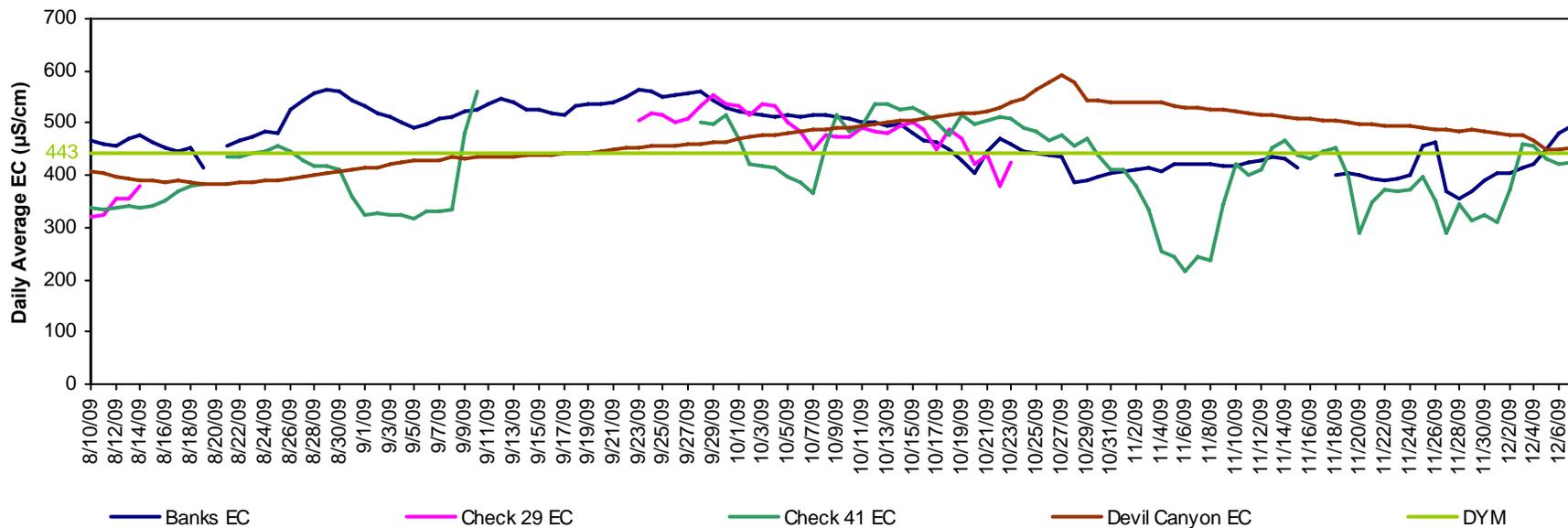
\*\* CBDA Objective

\*\*\* Datalogger equipment failed but is being replaced.

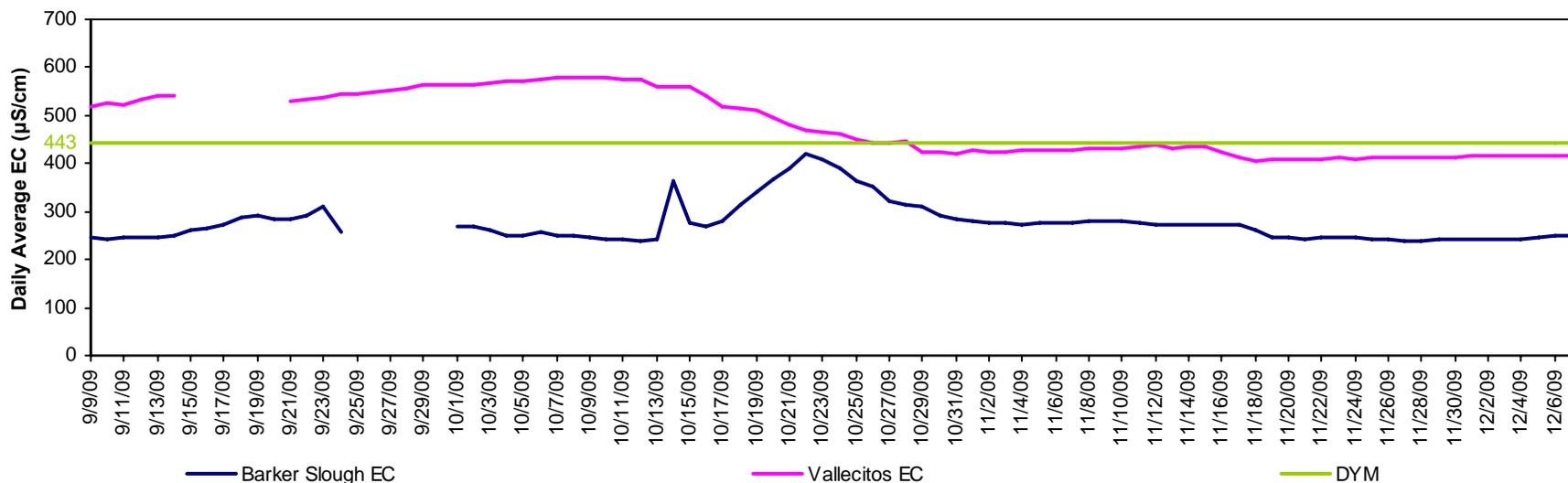
ND = Non-detect

\*\*\*Datalogger equipment failed but is being replaced.

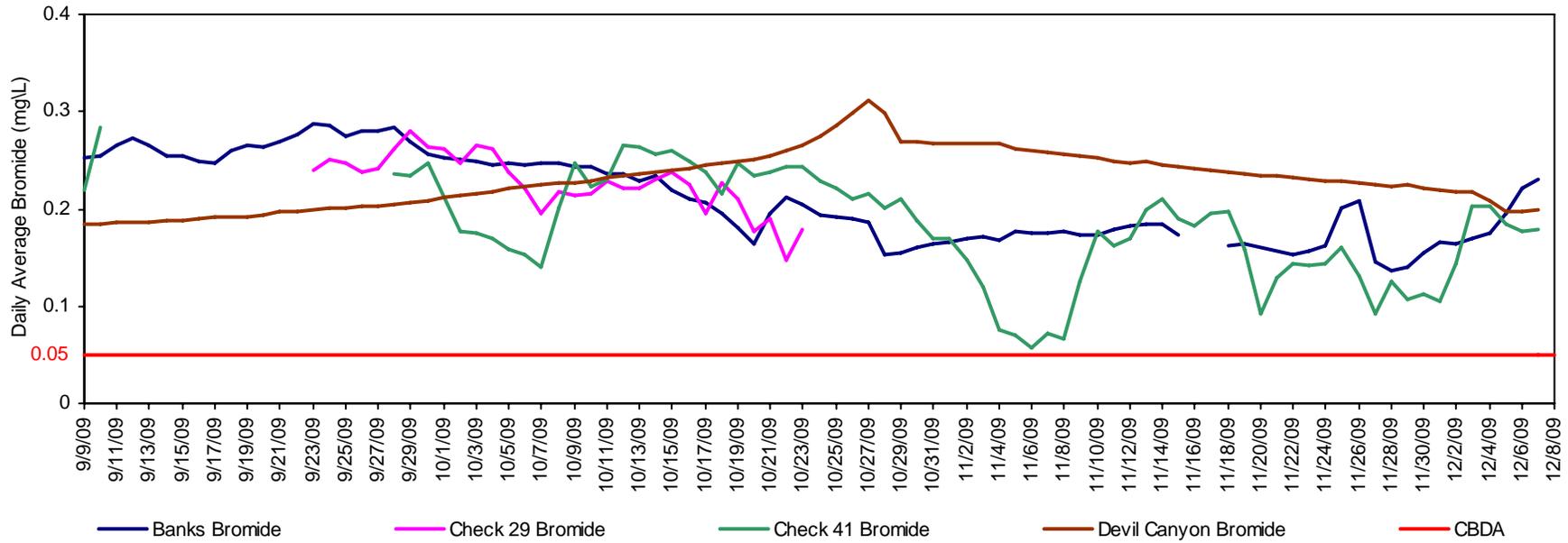
### California Aqueduct - Electrical Conductivity



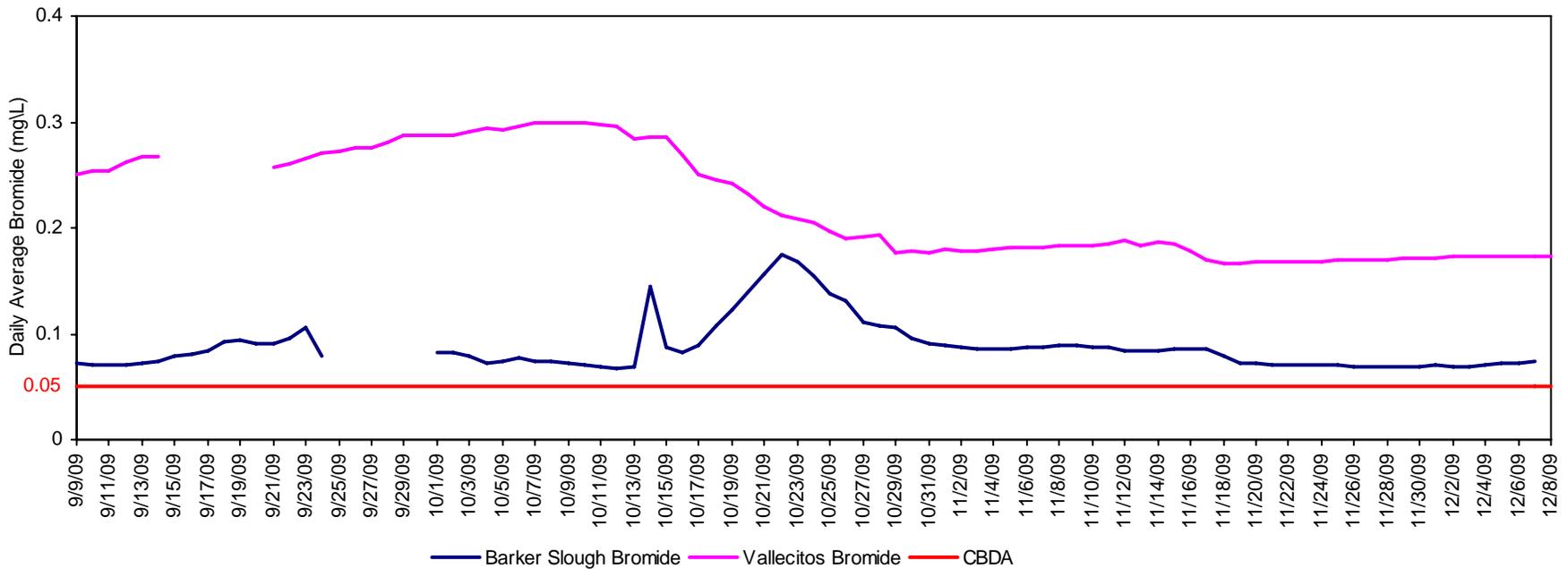
### North and South Bay Aqueduct - Electrical Conductivity



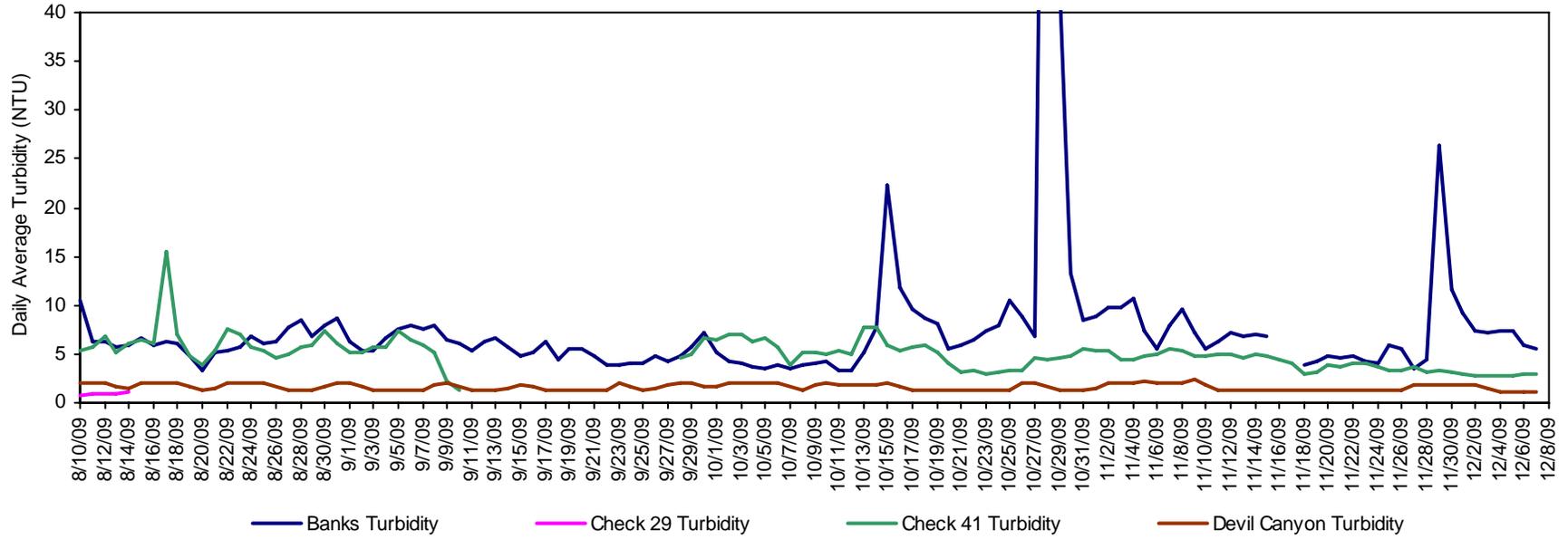
### California Aqueduct - Calculated Bromide



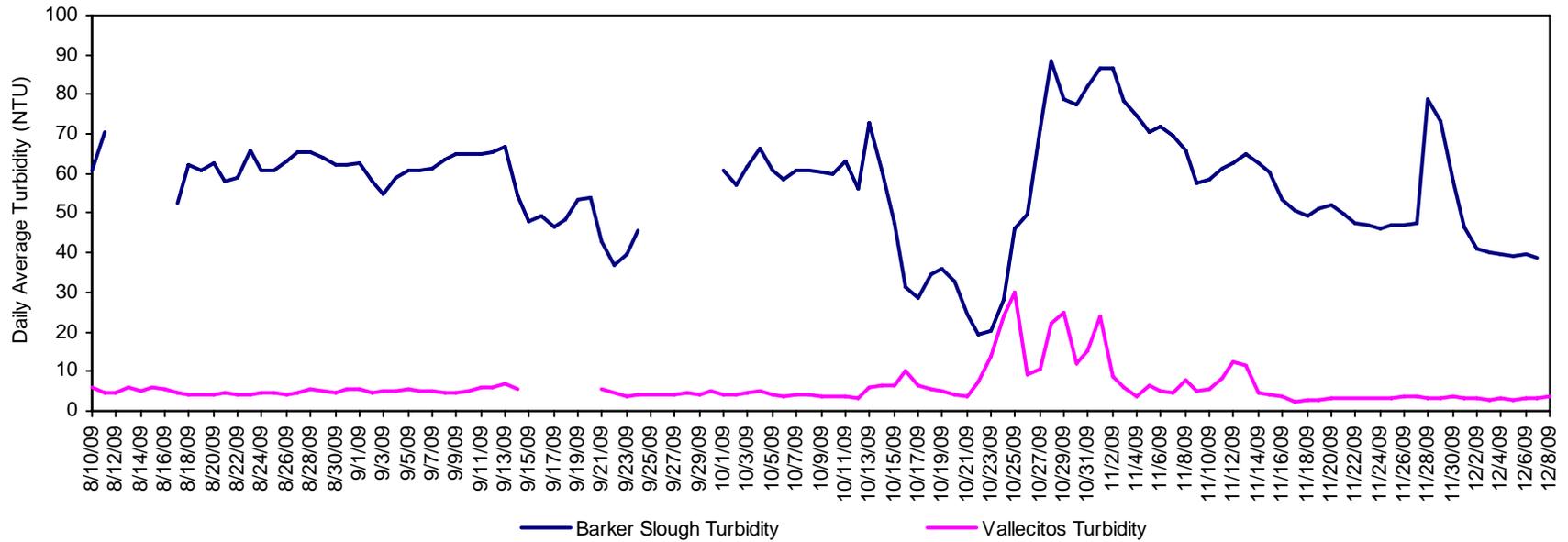
### North and South Bay Aqueduct - Calculated Bromide



### California Aqueduct - Turbidity



### North and South Bay Aqueduct - Turbidity



# California Aqueduct Calculated Dissolved Organic Carbon

