

**Stockton DWSC
Demonstration Dissolved Oxygen
Aeration Facility
2008 Experimental Testing
Overview**

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DWR Bay-Delta Office
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Overview of 2008 Experimental Testing

- Aeration Facility
- Experimental area
- Monitoring locations at NA 40, 42, 43, 48, and RRI (Upper 3 Miles)
- Experimental dates
- Mode of operation during experimental testing
- Historical and recent DO in the DWSC
- Monitoring results



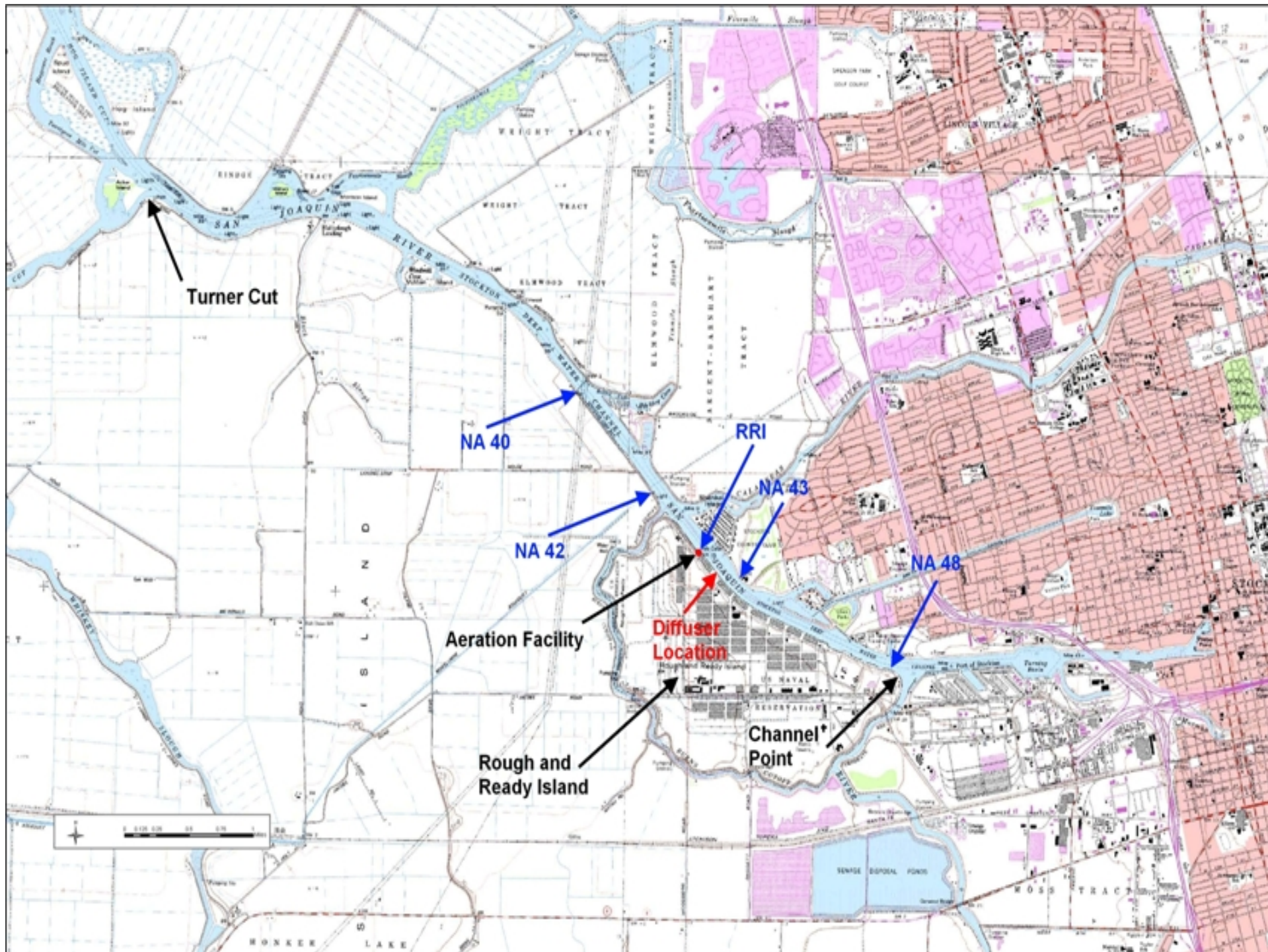


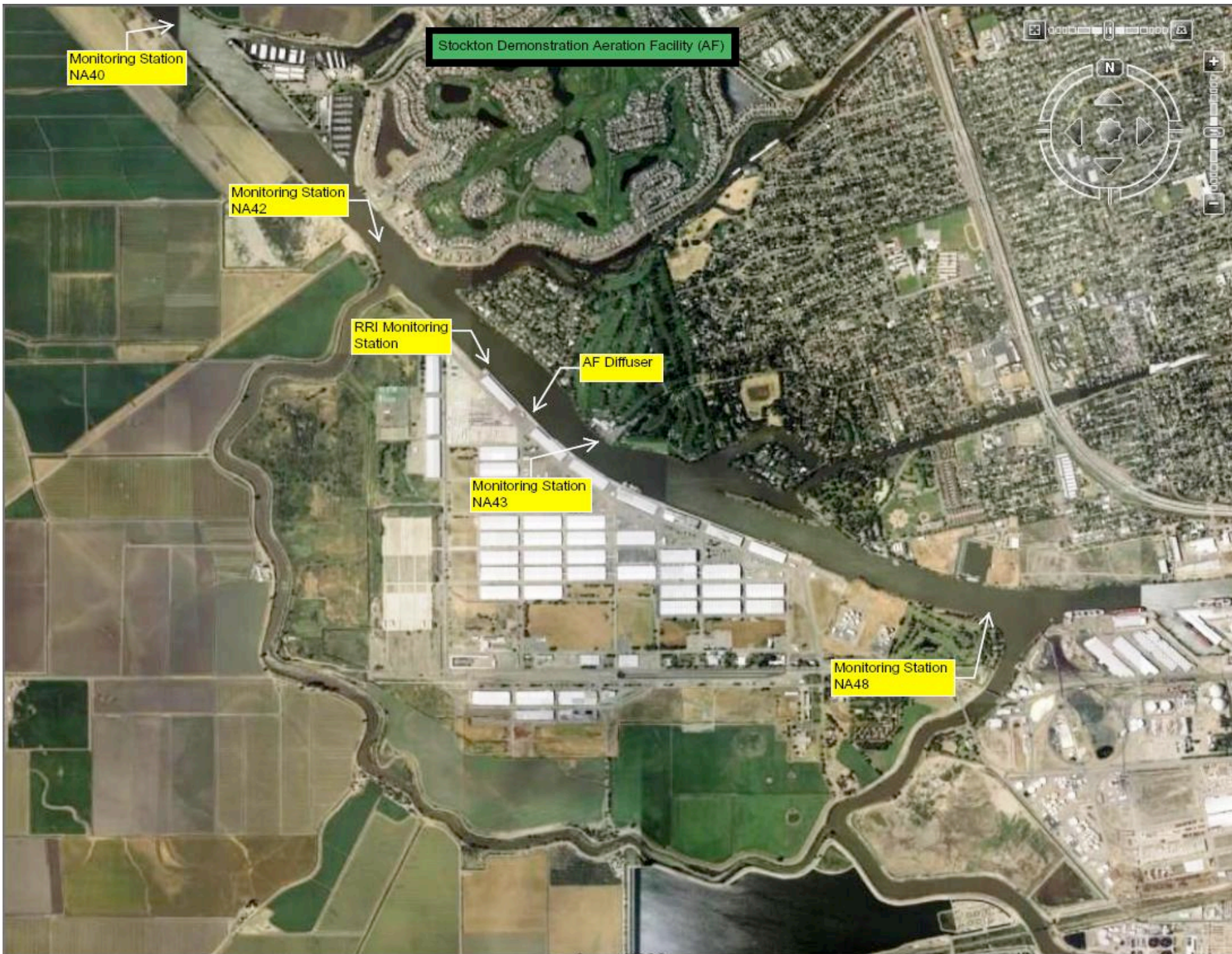
Looking Upstream



Looking Downstream







Monitoring Station NA40

Stockton Demonstration Aeration Facility (AF)

Monitoring Station NA42

RRI Monitoring Station

AF Diffuser

Monitoring Station NA43

Monitoring Station NA48

Stockton DWSC Demonstration Dissolved Oxygen Aeration Facility

Operational Testing Days in 2008

58 days (24 hour period) over a 69 day period

June						
<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

2008

July						
<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

2008

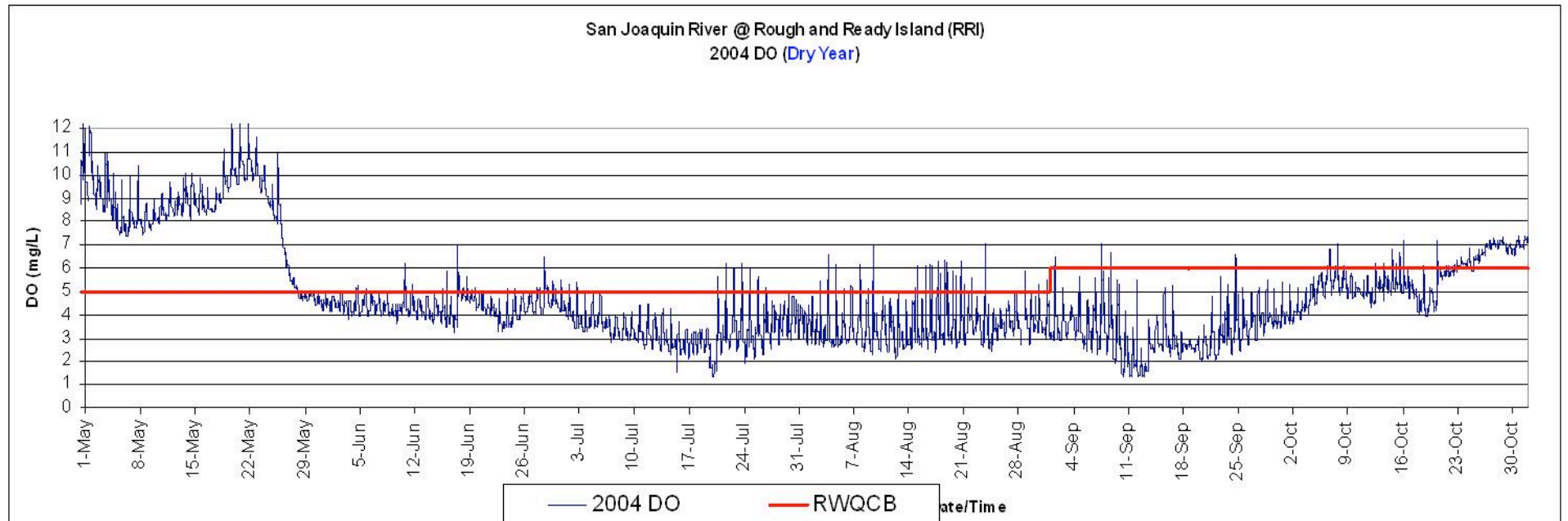
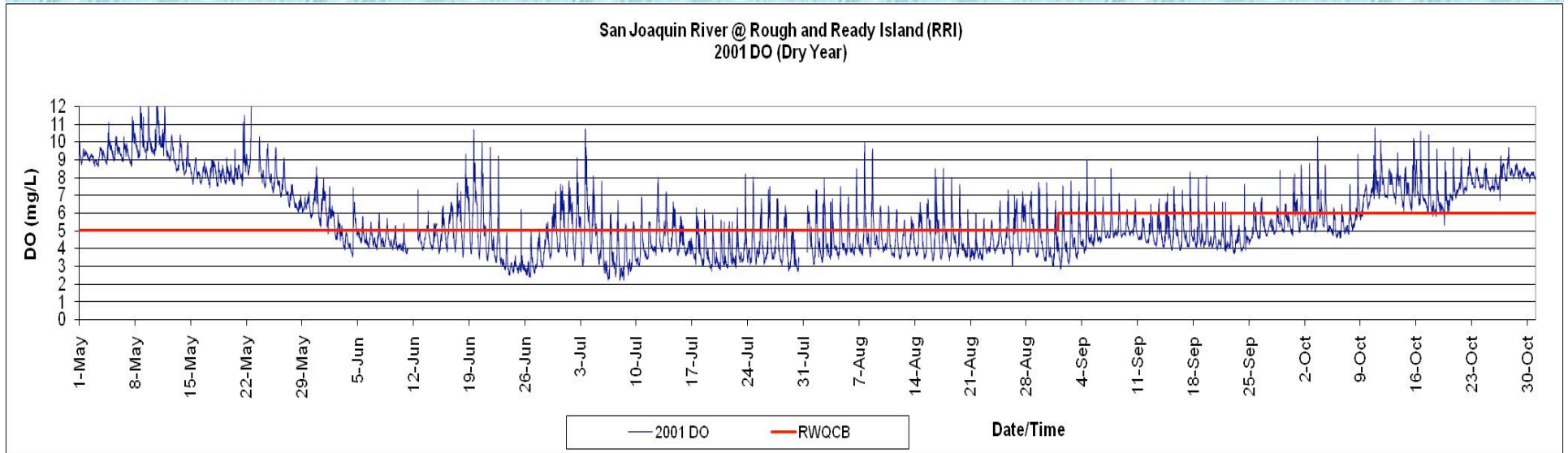
August						
<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

2008

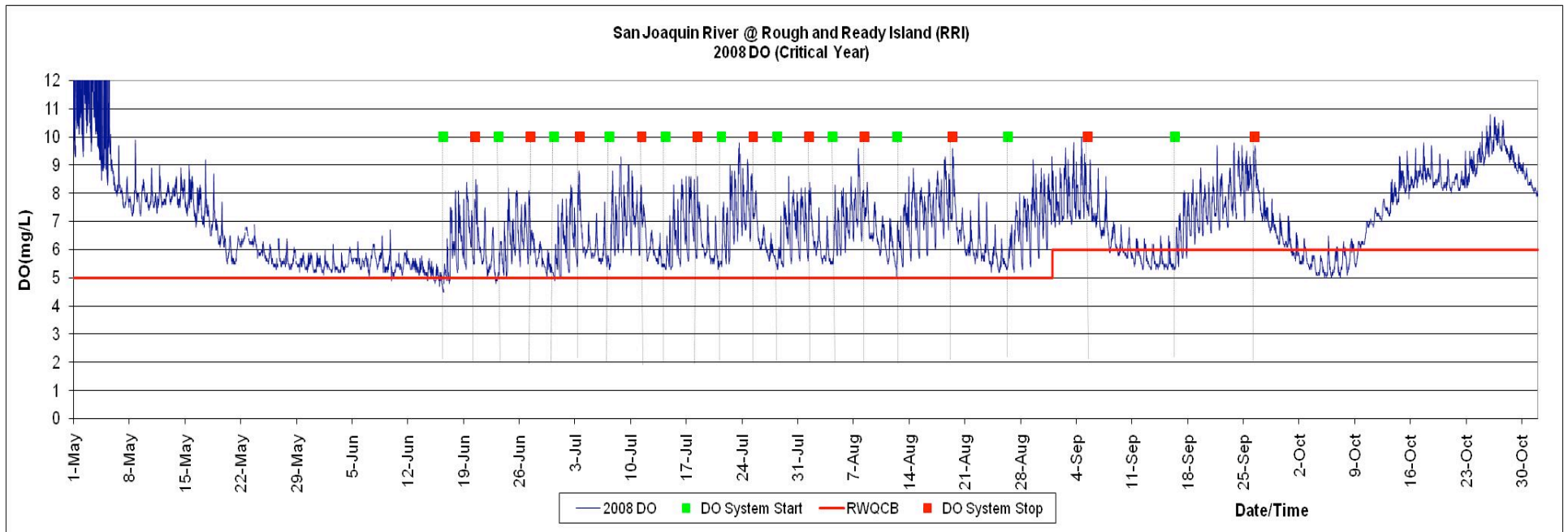
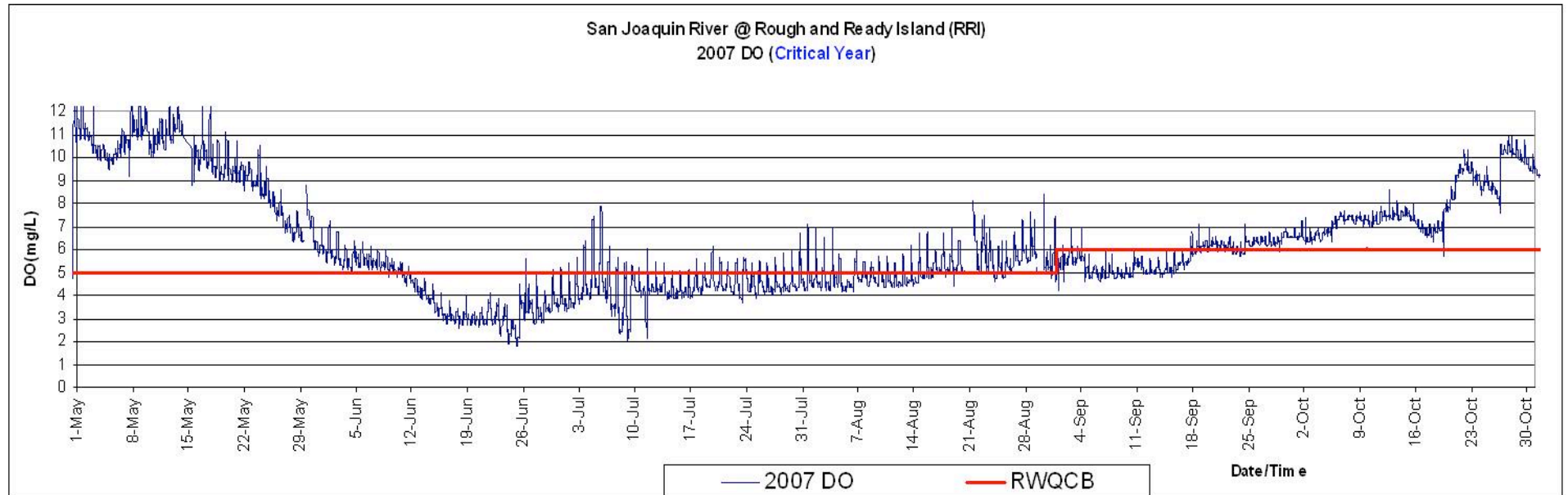
September						
<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

2008

Rough and Ready Island Dissolved Oxygen Levels May to October 2001 & 2004

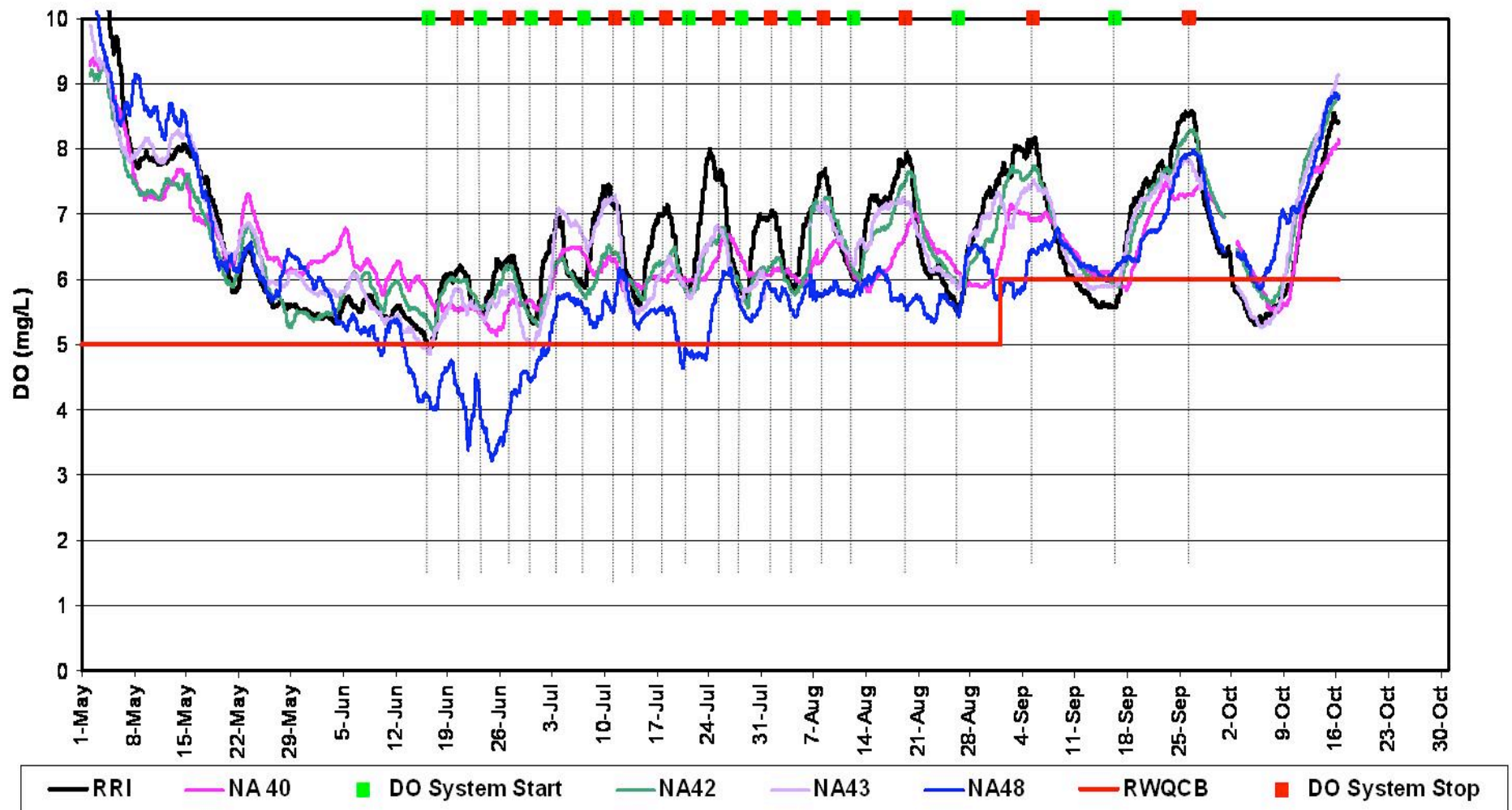


Rough and Ready Island Dissolved Oxygen Levels May to October 2007 & 2008



Rough & Ready Island and NA 40, 42, 43, and 48 25 hour averages (Full Tide Cycle)

DWSC Monitoring Stations & RRI DO Comparison (25 hr Averages) May - October 2008



Other Items

Experimental operations costs

- ~ \$1,200/day for liquid oxygen
- ~ \$1,200/day for power

Fishery Study – UC Davis Bodega Marine Laboratory

- Draft and final reports this summer

Reports

- “Initial Testing of Aeration Facility Capacity and Efficiency, August 2008”
- “Effects of the Head of Old River Barrier on Flow and Water Quality in the San Joaquin River and Deep Water Ship Channel – March 2010”
- Monthly monitoring data reports from 2008 - present

http://baydeltaoffice.water.ca.gov/sdb/af/index_af.cfm

2010 Plan To Complete The Study

- Additional operational tests
 - 2008 Operations Testing report in April 2010
- Additional efficiency tests
- Fishery study final report
 - Summer/Fall 2010
- Demonstration study final report
 - Fall 2010
- Long term operational agreement

An aerial photograph of a water treatment facility. The facility is situated on a concrete pier or island in a body of water. It features several large white cylindrical tanks, a complex network of white pipes, and a small white building with a blue roof. A small boat is visible in the water to the left. The text "Questions?" is overlaid in the upper center. Contact information for Bill McLaughlin is overlaid in the center, including a phone number, an email address, and a website URL. The word "STOP" is painted on the concrete in the lower right.

Questions?

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http://baydeltaoffice.water.ca.gov/sdb/af/index_af.cfm