

**Table F-1**  
**Water Quality Monitoring Results During Dredging - September 1 through 30, 2014**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
9/23/2014	13:42:20	Reference	D-BG-140923	32.69147	-117.15087	6.9	8.0	1.2	No	No	No
9/23/2014	13:58:21	Early Warning	D-EWN-140923	32.69232	-117.14767	6.1 <sup>2</sup>	7.9	6.7 <sup>3</sup>	No	No	No
9/23/2014	14:04:51	Compliance	D-CNN-140923	32.69249	-117.14814	6.1 <sup>2</sup>	8.0	4.2 <sup>3</sup>	No	No	No
9/23/2014	14:18:51	Reference	D-BG-140923	32.69153	-117.15077	6.9	8.0	1.9	No	No	No
9/23/2014	14:23:27	Compliance	D-CNN-140923	32.69228	-117.14822	6.1 <sup>2</sup>	8.0	4.5 <sup>3</sup>	No	No	No
9/23/2014	14:28:47	Compliance	D-CON-140923	32.69145	-117.14805	6.3	8.0	2.5 <sup>4</sup>	No	No	No
9/23/2014	14:43:11	Reference	D-BG-140923	32.69145	-117.14805	6.9	8.1	2.3	No	No	No
9/23/2014	14:47:38	Compliance	D-CON-140923	32.69145	-117.14805	6.4	8.0	2.4	No	No	No
9/23/2014	14:52:27	Compliance	D-COS-140923	32.69145	-117.14805	6.5	8.0	1.8	No	No	No
9/23/2014	15:15:00	Compliance	D-CNS-140923	32.69136	-117.14438	6.2	8.0	1.9	No	No	No
9/23/2014	15:28:10	Compliance	D-CNN-140923	32.69254	-117.14809	6.2	8.0	3.6 <sup>3</sup>	No	No	No
9/23/2014	15:35:31	Early Warning	D-EWS-140923	32.69098	-117.14607	6.3	8.0	2.1	No	No	No
9/24/2014	10:16:00	Reference	D-BG-140924	NR	NR	6.2	7.8	1.7	No	No	No
9/24/2014	10:26:00	Early Warning	D-EWN-140924	NR	NR	5.9	7.8	3.0 <sup>3</sup>	No	No	No
9/24/2014	10:28:00	Compliance	D-CNN-140924	NR	NR	6.0	7.8	3.5 <sup>3</sup>	No	No	No
9/24/2014	10:33:00	Reference	D-BG-140924	NR	NR	6.1	7.8	2.2	No	No	No
9/24/2014	10:37:00	Compliance	D-CNN-140924	NR	NR	5.9	7.8	2.9 <sup>3</sup>	No	No	No
9/24/2014	10:42:00	Compliance	D-CON-140924	NR	NR	6.1	7.8	2.3	No	No	No
9/24/2014	10:48:00	Compliance	D-COS-140924	NR	NR	6.3	7.8	2.5	No	No	No
9/24/2014	10:53:00	Compliance	D-CNS-140924	NR	NR	5.9	7.8	2.5	No	No	No
9/24/2014	10:58:00	Early Warning	D-EWS-140924	NR	NR	5.9	7.8	2.4	No	No	No
9/25/2014	10:35:53	Reference	D-BG-140925	32.69163	-117.15071	6.6	7.7	0.0 <sup>5</sup>	No	No	No
9/25/2014	12:12:05	Reference	D-BG-140925	32.69161	-117.15065	6.5	7.6	1.3	No	No	No
9/25/2014	12:19:15	Early Warning	D-EWN-140925	32.69159	-117.14801	6.3	7.7	2.2 <sup>3</sup>	No	No	No
9/25/2014	12:23:44	Compliance	D-CNN-140925	32.69255	-117.14817	6.1	7.6	4.7 <sup>3</sup>	No	No	No
9/25/2014	12:29:06	Reference	D-BG-140925	32.69163	-117.15071	6.6	7.7	2.2	No	No	No
9/25/2014	12:33:52	Compliance	D-CNN-140925	32.69230	-117.14834	6.2	7.7	3.7 <sup>3</sup>	No	No	No
9/25/2014	12:41:07	Compliance	D-CON-140925	32.69043	-117.14840	6.6	7.7	1.8	No	No	No
9/25/2014	12:44:59	Compliance	D-COS-140925	32.68964	-117.14671	6.6	7.7	1.9	No	No	No
9/25/2014	12:50:09	Compliance	D-CNS-140925	32.69072	-117.14482	6.2	7.6	2.1	No	No	No
9/25/2014	12:55:22	Early Warning	D-EWS-140925	32.69094	-117.14582	6.2	7.7	2.1	No	No	No
9/29/2014	13:10:31	Reference	D-BG-140929	32.69143	-117.15039	6.8	7.9	-0.8 <sup>6</sup>	No	No	No

**Table F-1  
Water Quality Monitoring Results During Dredging - September 1 through 30, 2014**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
9/29/2014	14:12:07	Reference	D-BG-140929	32.69168	-117.15068	6.9	7.9	0.8	No	No	No
9/29/2014	14:30:08	Early Warning	D-EWN-140929	32.69153	-117.14797	6.8	7.9	1.0	No	No	No
9/29/2014	14:36:04	Compliance	D-CNN-140929	32.69272	-117.14815	6.7	7.9	4.7 <sup>7</sup>	No	No	No
9/29/2014	14:57:29	Compliance	D-CON-140929	32.69021	-117.14787	7.0	8.0	0.3	No	No	No
9/29/2014	15:01:52	Compliance	D-COS-140929	32.68963	-117.14675	7.0	8.0	0.4	No	No	No
9/29/2014	15:06:48	Compliance	D-CNS-140929	32.69077	-117.14505	6.8	7.9	0.8	No	No	No
9/29/2014	15:12:58	Early Warning	D-EWS-140929	32.69100	-117.14602	6.8	7.9	0.7	No	No	No

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference (BG); pH shall not be changed more than 0.2 unit from reference (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of reference (BG; if natural turbidity from 0 to 50 NTU).

1 Latitude and longitude coordinates in decimal degrees, NAD83.

2 Early warning and compliance station results for DO were depressed more than 10 percent from the reference (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. The DO concentration was depressed more than 10 percent of the second reference measurement; therefore, initial results were confirmed. Dredging best management practices were evaluated and found to be working properly. Concentrations were determined to be consistent with reference conditions based on automated buoy monitoring. Visual observations indicate that potential exceedances were likely not a result of construction-related activities and are consistent with the natural variation within the project area and that area of San Diego Bay.

3 Early warning and compliance station results for turbidity exceeded 20 percent of the reference (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. Turbidity concentrations were greater than 20 percent of the subsequent reference measurement; therefore, the initial results were confirmed. Dredging best management practices were evaluated and found to be working properly. Concentrations were determined to be consistent with reference conditions based on automated buoy monitoring. Visual observations indicate that potential exceedances were likely not a result of construction-related activities and are consistent with the natural variation within the project area and that area of San Diego Bay.

4 Compliance station results for turbidity exceeded 20 percent of the reference (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. Turbidity concentrations were within 20 percent of the reference; therefore, compliance criteria were not exceeded.

5 Recalibrated turbidity meter following measurement of 0.0 NTU.

6 Recalibrated turbidity meter following measurement of -0.8 NTU.

7 Compliance station results for turbidity exceeded 20 percent of the reference (BG). Dredging best management practices were evaluated and found to be working properly. Concentrations were determined to be consistent with reference conditions based on automated buoy monitoring. Visual observations indicate that potential exceedances were likely not a result of construction-related activities and are consistent with the natural variation within the project area and that area of San Diego Bay.

DO = dissolved oxygen

mg/L = milligrams per liter

NAD83 = North American Datum of 1983

NTU = Nephelometric Turbidity Units

NR = not recorded

**Table F-2**  
**Water Quality Monitoring Results During Dredging or Debris Removal - October 1 through 31, 2014**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
10/9/2014 <sup>2</sup>	11:39:09	Reference	R-BG-141009	32.69173	-117.15084	5.8	8.0	3.2	No	No	No
10/9/2014 <sup>2</sup>	11:53:41	Early Warning	R-EWN-141009	32.68998	-117.14452	5.5	8.0	3.3	No	No	No
10/9/2014 <sup>2</sup>	11:57:59	Early Warning	R-EWS-141009	32.68921	-117.14373	5.6	7.9	3.0	No	No	No
10/29/2014	14:17:57	Reference	D-BG-141029	32.69165	-117.15052	6.8	7.9	2.5	No	No	No
10/29/2014	14:25:55	Early Warning	D-EWN-141029	32.69199	-117.14738	6.6	7.9	2.3	No	No	No
10/29/2014	14:34:15	Early Warning	D-EWS-141029	32.69158	-117.14542	6.5	7.9	2.2	No	No	No
10/29/2014	14:40:04	Compliance	D-CNS-141029	32.69045	-117.14511	6.7	7.9	2.2	No	No	No
10/29/2014	14:44:34	Compliance	D-COS-141029	32.69016	-117.14629	6.8	7.9	2.6	No	No	No
10/29/2014	14:49:27	Compliance	D-CON-141029	32.69064	-117.14728	6.7	7.9	2.8	No	No	No
10/29/2014	14:54:44	Compliance	D-CNN-141029	32.69202	-117.14840	6.9	7.9	2.2	No	No	No

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference (BG); pH shall not be changed more than 0.2 unit from reference (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of reference (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

NR = not recorded

<sup>1</sup> Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

<sup>2</sup> YSI connectivity disruption. No data collected at compliance stations on October 9.

**Table F-3**  
**Water Quality Monitoring Results During Dredging - November 1 through 30, 2014**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
11/5/2014	15:07:05	Reference	D-BG-141105	32.69158	-117.15034	6.5	7.9	0.3	No	No	No
11/5/2014	15:16:50	Early Warning	D-EWN-20141105	32.69210	-117.14691	5.8	7.9	1.0	No	No	No
11/5/2014	15:24:56	Compliance	D-CNN-141105	32.69182	-117.14767	5.6 <sup>2</sup>	7.9	0.5 <sup>3</sup>	No	No	No
11/5/2014	15:31:42	Reference	D-BG-141105	32.69159	-117.15035	5.6	7.9	0.5	No	No	No
11/5/2014	15:35:52	Compliance	D-CNN-141105	32.69176	-117.14776	5.3	7.9	0.5	No	No	No
11/5/2014	15:45:30	Compliance	D-CON-141105	32.69146	-117.14718	5.2	8	0.9 <sup>4</sup>	No	No	No
11/5/2014	15:51:54	Reference	D-BG-141105	32.69156	-117.15039	5.6	8	0.2	No	No	No
11/5/2014	15:57:17	Compliance	D-CON-141105	32.69142	-117.14723	5.2	7.9	0.5 <sup>4</sup>	No	No	No
11/5/2014	16:23:00	Early Warning	D-EWS-141105	32.69201	-117.14524	5.4	7.9	1.3	No	No	No
11/5/2014	16:26:00	Compliance	D-CNS-141105	32.69161	-117.14587	5.4	7.9	0.8 <sup>3</sup>	No	No	No
11/5/2014	16:41:00	Reference	D-BG-141105	32.69158	-117.15034	5.4	8	0.7	No	Yes <sup>5</sup>	No
11/5/2014	16:52:00	Compliance	D-CNS-141105	32.69161	-117.14587	5.3	8	0.7	No	No	No
11/5/2014	16:57:00	Compliance	D-COS-141105	32.69120	-117.14702	5.3	8	0.8	No	No	No
11/12/2014	14:05:05	Reference	D-BG-141112	32.69166	-117.15042	7.2	7.9	1.8	No	No	No
11/12/2014	14:20:38	Early Warning	D-EWS-141112	32.69122	-117.14720	6.9	7.9	1.7	No	No	No
11/12/2014	14:25:05	Compliance	D-COS-141112	32.69037	-117.14738	6.2 <sup>6</sup>	7.9	1.1	No	No	No
11/12/2014	14:29:32	Compliance	D-CNS-141112	32.69096	-117.14592	7.1	7.9	1.7	No	No	No
11/12/2014	14:40:42	Early Warning	D-EWN-141112	32.69174	-117.14780	6.8	7.9	1.7	No	No	No
11/12/2014	14:45:05	Compliance	D-CNN-141112	32.69156	-117.14875	7.0	7.9	1.8	No	No	No
11/12/2014	14:51:56	Compliance	D-CON-141112	32.69094	-117.14839	7.3	7.9	1.1	No	No	No
11/18/2014	11:44:06	Reference	D-BG-141118	32.69159	-117.15077	7.2	8.0	1.1	No	No	No
11/18/2014	14:19:59	Early Warning	D-EWN-141118	32.68938	-117.14417	7.0	8.1	0.0	No	No	No
11/18/2014	14:25:15	Early Warning	D-EWS-141118	32.68877	-117.14296	7.1	8.1	0.0	No	No	No
11/18/2014	14:29:03	Compliance	D-CNS-141118	32.68843	-117.14264	7.1	8.1	0.2	No	No	No
11/18/2014	14:33:12	Compliance	D-COS-141118	32.68832	-117.14337	7.1	8.1	0.1	No	No	No
11/18/2014	14:40:18	Compliance	D-CON-141118	32.68877	-117.14463	7.0	8.1	0.1	No	No	No
11/18/2014	14:43:32	Compliance	D-CNN-141118	32.68921	-117.14477	7.0	8.1	0.4	No	No	No
11/24/2014	14:59:35	Reference	D-BG-141124	32.69199	-117.15085	9.3	7.7	2.4	No	No	No
11/24/2014	15:15:03	Early Warning	D-EWS-141124	32.68877	-117.14361	8.3	7.7	2.9	No	No	No
11/24/2014	15:22:43	Early Warning	D-EWN-141124	32.68891	-117.14453	8.4	7.7	2.3	No	No	No
11/24/2014	15:29:07	Compliance	D-CNS-141124	32.68832	-117.14264	8.4	7.7	2.3	No	No	No

**Table F-3  
Water Quality Monitoring Results During Dredging - November 1 through 30, 2014**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
11/24/2014	15:37:10	Compliance	D-COS-141124	32.68803	-117.14429	8.6	7.7	2.0	No	No	No
11/24/2014	15:44:36	Compliance	D-CON-141124	32.68848	-117.14507	8.6	7.5	2.9 <sup>3</sup>	No	No	No
11/24/2014	15:51:25	Compliance	D-CNN-141124	32.68950	-117.14547	8.4	7.8	2.0	No	No	No
11/24/2014	16:01:20	Reference	D-BG-141124	32.69199	-117.15085	8.6	7.8	2.0 <sup>3</sup>	No	No	No
11/24/2014	16:09:27	Compliance	D-CON-141124	32.68848	-117.14507	8.4	7.8	2.3 <sup>3</sup>	No	No	No

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference (BG); pH shall not be changed more than 0.2 unit from reference (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of reference (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Compliance station results for DO were depressed more than 10 percent from the reference (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. The DO concentration was not depressed more than 10 percent of the subsequent reference measurement; therefore, compliance criteria were not exceeded.

3 Compliance station results for turbidity exceeded 20 percent of the reference (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. Turbidity concentrations were not greater than 20 percent of the subsequent reference measurement; therefore, compliance criteria were not

4 Compliance station results for turbidity exceeded 20 percent of the reference (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. Turbidity concentrations were greater than 20 percent of the subsequent reference measurement; therefore, the initial results were confirmed.

However, the confirmatory measurement was within 20 percent of a subsequent measurement at the reference station, indicating that the potential exceedance was likely not a result of construction-related activities and is consistent with the natural variation with the project area and that area of San Diego Bay.

5 Organics (i.e., leaves) and anthropogenic debris

6 Compliance station results for DO were depressed more than 10 percent from the reference (BG). Dredging best management practices were evaluated and found to be working properly. Visual observations and turbidity measurements indicate the potential exceedance was likely not a result of construction-related activities.

**Table F-4**  
**Water Quality Monitoring Results During Dredging - December 1 through December 31, 2014**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
12/1/2014	14:05:00	Reference	D-BG-141201	32.69160	-117.15040	9.9	7.4	2.2	No	No	No
12/1/2014	14:20:00	Early Warning	D-EWS-141201	32.68878	-117.14295	9.1	7.5	2.3	No	No	No
12/1/2014	14:28:00	Early Warning	D-EWN-141201	32.68950	-117.14443	8.8	7.6	1.9	No	No	No
12/1/2014	14:37:00	Compliance	D-CNS-141201	32.68847	-117.14253	8.9	7.7 <sup>2</sup>	3.5 <sup>3</sup>	No	No	No
12/1/2014	14:50:00	Reference	D-BG-141201	32.69160	-117.15040	9.1	7.6	1.6	No	No	No
12/1/2014	15:00:00	Compliance	D-CNS-141201	32.68847	-117.14253	8.7	7.8	3.9 <sup>3</sup>	No	No	No
12/1/2014	15:15:00	Compliance	D-COS-141201	32.68800	-117.14377	9.0	7.8	3.1 <sup>3</sup>	No	No	No
12/1/2014	15:25:00	Reference	D-BG-141201	32.69160	-117.15040	8.9	7.6	1.6	No	No	No
12/1/2014	15:35:00	Compliance	D-COS-141201	32.68800	-117.14377	9.4	7.8	3.4 <sup>3</sup>	No	No	No
12/1/2014	15:41:00	Compliance	D-CON-141201	32.68852	-117.14452	8.7	7.8	3.1 <sup>3</sup>	No	No	No
12/1/2014	15:52:00	Reference	D-BG-141201	32.69160	-117.15040	9.1	7.8	2.6	No	No	No
12/1/2014	16:00:00	Compliance	D-CON-141201	32.68852	-117.14452	9.1	7.7	1.7	No	No	No
12/1/2014	16:05:00	Compliance	D-CNN-141201	32.68940	-117.14522	9.3	7.7	2.1	No	No	No
12/1/2014	16:10:00	Compliance	D-COS-141201	32.68800	-117.14377	9.3	7.7	1.7	No	No	No
12/1/2014	16:16:00	Compliance	D-CNS-141201	32.68847	-117.14253	9.5	7.7	3.0	No	No	No
12/8/2014	13:36:52	Reference	D-BG-141208	32.69170	-117.15062	6.8	8.0	0.1	No	No	No
12/8/2014	13:47:31	Early Warning	D-EWN-141208	32.69193	-117.14801	6.7	8.0	0.0	No	No	No
12/8/2014	13:51:33	Compliance	D-CNN-141208	32.69211	-117.14857	6.7	8.0	0.7 <sup>4</sup>	No	No	No
12/8/2014	14:01:56	Compliance	D-CON-141208	32.69051	-117.14880	6.9	8.0	0.0	No	No	No
12/8/2014	14:18:11	Early Warning	D-EWS-141208	32.69081	-117.14706	6.7	8.0	0.1	No	No	No
12/8/2014	14:22:35	Compliance	D-COS-141208	32.68996	-117.14720	7.0	8.0	0.2 <sup>4</sup>	No	No	No
12/8/2014	14:27:40	Compliance	D-CNS-141208	32.68999	-117.14598	6.7	8.0	0.3 <sup>4</sup>	No	No	No
12/17/2014	12:43:38	Reference	D-BG-141217	32.69161	-117.15018	6.9	8.1	0.0 <sup>5</sup>	No	No	No
12/17/2014	13:03:36	Early warning	D-EWN-141217	32.69167	-117.14676	6.6	8.2	0.0 <sup>5</sup>	No	No	Yes <sup>6</sup>
12/17/2014	13:15:32	Early warning	D-EWS-141217	32.68975	-117.14577	6.6	8.2	0.0 <sup>5</sup>	No	No	No
12/17/2014	13:25:26	Compliance	D-CNN-141217	32.69078	-117.14765	6.7	8.2	0.0 <sup>5</sup>	No	No	Yes <sup>6</sup>
12/17/2014	13:32:16	Compliance	D-CON-141217	32.68982	-117.14724	7.1	8.2	0.0 <sup>5</sup>	No	No	Yes <sup>6</sup>
12/17/2014	13:41:27	Compliance	D-COS-141217	32.68955	-117.14614	6.7	8.2	0.0 <sup>5</sup>	No	No	Yes <sup>6</sup>
12/17/2014	13:47:17	Compliance	D-CNS-141217	32.68922	-117.14523	6.5	8.2	0.3 <sup>5,7</sup>	No	No	Yes <sup>6</sup>

**Table F-4  
Water Quality Monitoring Results During Dredging - December 1 through December 31, 2014**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
12/23/2014	12:51:16	Reference	D-BG-121223	32.69159	-117.15080	7.3	7.9	0.0 <sup>5</sup>	No	Yes <sup>8</sup>	No
12/23/2014	13:14:41	Early Warning	D-EWN-141223	32.69179	-117.14687	6.9	7.9	0.0 <sup>5</sup>	No	No	No
12/23/2014	13:21:40	Early Warning	D-EWS-141223	32.69029	-117.14620	7.1	7.9	0.0 <sup>5</sup>	No	Yes <sup>9</sup>	No
12/23/2014	13:30:02	Compliance	D-CON-141223	32.69068	-117.14777	7.3	7.9	0.0 <sup>5</sup>	No	No	No
12/23/2014	13:35:24	Compliance	D-COS-141223	32.68968	-117.14647	7.2	7.9	0.0 <sup>5</sup>	No	No	No
12/23/2014	13:39:28	Compliance	D-CNS-141223	32.68956	-117.14570	7.1	7.9	0.0 <sup>5</sup>	No	No	No
12/23/2014	13:50:19	Compliance	D-CNN-141223	32.69152	-117.14781	7.1	8.0	0.0 <sup>5</sup>	No	No	No

Notes:  
Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference (BG); pH shall not be changed more than 0.2 unit from reference (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of reference (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen  
mg/L = milligrams per liter  
NTU = Nephelometric Turbidity Units  
NR = not recorded

- 1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).
- 2 Compliance station result for pH was more than 0.2 unit from the reference (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. The concentration of pH was not more than 0.2 unit from the subsequent reference measurement; therefore, compliance criteria were met.
- 3 Compliance station results for turbidity exceeded 20 percent of the reference (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. At two stations, measurements were retaken a third time following confirmation that dredging best management practices were working properly and waiting at least 30 minutes. Turbidity concentrations were not greater than 20 percent of the final reference measurement; therefore, compliance criteria were met. Based on visual observations, low turbidity at the early warning stations (less than or similar to the reference), and confirmatory measurements, potential exceedances were not attributed to construction-related activities and are likely a result of natural variability.
- 4 Compliance station result for turbidity exceeded 20 percent of the reference (BG). Based on visual observations and low turbidity at the early warning stations (less than or similar to reference), potential exceedances were not attributed to construction-related activities and are likely a result of natural variability.
- 5 Investigation following sampling on December 23 indicated the turbidity sensor was malfunctioning. The reliability of turbidity data on this day is questionable.
- 6 Slight discoloration was observed throughout the area; potentially due to rain earlier this day (approximately 0.4 inch).
- 7 Compliance station results for turbidity exceeded 20 percent of the reference (BG). With turbidity measurements this low, insignificant variations and imprecision of the measuring method can lead to deviations of 20 percent or more. Based on visual observations, the potential exceedance was not attributed to construction-related activities.
- 8 Trace organic debris
- 9 Trace organic debris; slight sheen on surface

**Table F-5**  
**Water Quality Monitoring Results During Dredging - January 1 through January 31, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
1/6/2015	12:27:00	Reference	D-BG-150106	32.69178	-117.15060	9.25	7.8	1.5	No	No	No
1/6/2015	12:40:00	Early Warning	D-EWN-150106	32.69183	-117.14683	8.95	7.6	2.0	No	No	No
1/6/2015	12:44:00	Early Warning	D-EWS-150106	32.69002	-117.14553	9.58	7.7	3.6	No	No	No
1/6/2015	12:59:00	Compliance	D-CNS-150106	32.69092	-117.14363	9.22	8.0	2.3 <sup>2</sup>	No	No	No
1/6/2015	13:19:00	Compliance	D-COS-150106	32.68903	-117.14495	9.1	7.9	2.6 <sup>2</sup>	No	No	No
1/6/2015	13:31:00	Compliance	D-CNN-150106	32.69190	-117.14678	9.2	8.0	1.8	No	No	No
1/6/2015	13:37:00	Compliance	D-CON-150106	32.69053	-117.14840	10.2	8.0	1.9 <sup>2</sup>	No	No	No
1/15/2015	10:20:00	Reference	D-BG-150115	32.69150	-117.15057	9.7	7.4	4.8	No	No	No
1/15/2015	10:36:00	Early Warning	D-EWN-150115	32.69110	-117.14722	9.7	7.6	2.9	No	No	No
1/15/2015	10:44:00	Early Warning	D-EWS-150115	32.69043	-117.14530	8.6	7.7	2.6	No	No	No
1/15/2015	10:56:00	Compliance	D-CNN-150115	32.69172	-117.14773	9.5	7.8 <sup>4</sup>	2.5	No	No	No
1/15/2015	11:07:00	Compliance	D-CNS-150115	32.69065	-117.14373	8.8	7.8 <sup>4</sup>	2.5	No	No	No
1/15/2015	11:12:00	Compliance	D-COS-150115	32.68930	-117.14545	8.2 <sup>3</sup>	7.9 <sup>4</sup>	4.0	No	No	No
1/15/2015	11:18:00	Compliance	D-CON-150115	32.69055	-117.14800	9.7	8.0 <sup>4</sup>	1.8	No	No	No
1/20/2015	13:31:41	Reference	R-BG-150120	32.69219	-117.15109	8.1	8.2	1.6	No	Yes <sup>5</sup>	No
1/20/2015	13:46:30	Early Warning	R-EWN-150120	32.69114	-117.14722	8.0	8.2	0.6	No	No	No
1/20/2015	13:53:20	Early Warning	R-EWS-150120	32.69015	-117.14570	8.0	8.3	1.0	No	No	No
1/20/2015	14:00:50	Compliance	R-CON-150120	32.69087	-117.14793	8.0	8.2	1.6	No	No	No
1/20/2015	14:08:12	Compliance	R-COS-150120	32.68961	-117.14621	8.1	8.3	1.5	No	No	No
1/20/2015	14:12:33	Compliance	R-CNS-150120	32.69063	-117.14519	8.0	8.3	1.5	No	No	No
1/20/2015	14:22:40	Compliance	R-CNN-150120	32.69161	-117.14803	8.0	8.3	1.0	No	No	No
1/27/2015	14:10:53	Reference	D-BG-150127	32.69202	-117.15069	8.1	8.0	0.6	No	No	No
1/27/2015	14:24:22	Early Warning	D-EWN-150127	32.69119	-117.14713	7.8	8.0	0.2	No	No	No
1/27/2015	14:29:01	Early Warning	D-EWS-150127	32.68978	-117.14549	7.9	8.0	0.6	No	No	No
1/27/2015	14:33:42	Compliance	D-CON-150127	32.69055	-117.14780	8.1	8.0	0.5	No	No	No
1/27/2015	14:38:42	Compliance	D-COS-150127	32.68911	-117.14538	8.0	8.0	0.6	No	No	No
1/27/2015	14:43:14	Compliance	D-CNS-150127	32.69004	-117.14424	7.9	8.0	0.7	No	No	No
1/27/2015	14:56:32	Compliance	D-CNN-150127	32.69132	-117.14779	7.9	8.0	0.1	No	No	No



**Table F-5**  
**Water Quality Monitoring Results During Dredging - January 1 through January 31, 2015**

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference (BG); pH shall not be changed more than 0.2 unit from reference (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of reference (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

NR = not recorded

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Compliance station result for turbidity exceeded 20 percent of the reference (BG). Based on visual observations, potential exceedances were not attributed to construction-related activities and are likely a result of natural variability.

3 Compliance station result for DO depressed more than 10 percent from the reference (BG). Based on visual observations, site conditions, measurements at the early warning stations, and automated water quality data, the potential exceedance was not attributed to construction-related activities.

4 Compliance station result for pH differed more than 0.2 unit from reference (BG). Based on visual observations, site conditions, measurements at the early warning stations, and automated water quality data, the potential exceedance was not attributed to construction-related activities.

5 Floating wooden debris was observed at the reference station, noted as "organic debris."

Table F-6

## Water Quality Monitoring Results During Dredging or Debris Removal - February 1 through February 28, 2015

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
2/3/2015	11:32:06	Reference	D-BG-150203	32.69208	-117.15090	7.8	7.9	1.9	No	No	No
2/3/2015	11:43:20	Early Warning	D-EWN-150203	32.69134	-117.15026	7.6	7.9	1.3	No	No	No
2/3/2015	11:50:35	Early Warning	D-EWS-150203	NR <sup>3</sup>	NR <sup>3</sup>	7.7	8.0	1.7	No	No	No
2/3/2015	11:54:28	Compliance	D-CON-150203	NR <sup>3</sup>	NR <sup>3</sup>	7.8	7.9	1.9	No	No	No
2/3/2015	12:02:43	Compliance	D-COS-150203	NR <sup>3</sup>	NR <sup>3</sup>	7.8	8.0	1.7	No	No	No
2/3/2015	12:06:57	Compliance	D-CNS-150203	NR <sup>3</sup>	NR <sup>3</sup>	7.7	8.0	2.1	No	No	No
2/3/2015	12:20:35	Compliance	D-CNN-150203	NR <sup>3</sup>	NR <sup>3</sup>	7.8	8.0	1.4	No	No	No
2/11/2015	11:41:11	Reference	R-BG-150211	32.69195	-117.15076	7.7	7.9	1.3	No	No	No
2/11/2015	12:00:58	Early Warning	R-EWN-150211	32.69105	-117.14733	7.5	7.9	1.4	No	No	No
2/11/2015	12:04:06	Early Warning	R-EWS-150211	32.68986	-117.14598	7.7	8.0	1.3	No	No	No
2/11/2015	12:08:22	Compliance	R-CON-150211	32.69021	-117.14795	7.7	8.0	1.1	No	No	No
2/11/2015	12:11:16	Compliance	R-COS-150211	32.68938	-117.14635	7.7	8.0	1.2	No	No	No
2/11/2015	12:14:00	Compliance	R-CNS-150211	32.68927	-117.14501	7.7	8.0	1.3	No	No	No
2/11/2015	12:23:04	Compliance	R-CNN-150211	32.69109	-117.14808	7.6	8.0	1.0	No	No	No
2/16/2015	13:35:39	Reference	D-BG-150216	32.69215	-117.15072	7.5	8.0	1.1	No	No	No
2/16/2015	13:48:19	Early Warning	D-EWN-150216	32.69101	-117.14718	7.4	8.0	0.6	No	No	No
2/16/2015	13:51:47	Early Warning	D-EWS-150216	32.69041	-117.14659	7.4	8.0	1.0	No	No	No
2/16/2015	13:56:11	Compliance	D-CON-150216	32.69063	-117.14766	7.4	8.0	1.7 <sup>2</sup>	No	No	No
2/16/2015	14:02:32	Compliance	D-COS-150216	32.69000	-117.14656	7.4	8.0	1.6 <sup>2</sup>	No	No	No
2/16/2015	14:07:48	Compliance	D-CNS-150216	32.68978	-117.14546	7.4	8.0	1.8 <sup>2</sup>	No	No	No
2/16/2015	14:16:10	Compliance	D-CNN-150216	32.69130	-117.14814	7.4	8.0	1.3	No	No	No
2/25/2015	12:54:00	Reference	D-BG-150225	32.69201	-117.15079	7.6	7.9	0.8	No	No	No
2/25/2015	13:06:00	Early Warning	D-EWN-150225	32.69027	-117.14571	7.5	7.9	0.8	No	No	No
2/25/2015	13:11:00	Early Warning	D-EWS-150225	32.68962	-117.14526	7.6	7.9	0.9	No	No	No
2/25/2015	13:14:00	Compliance	D-CNN-150225	32.69107	-117.14665	7.4	7.9	1.2 <sup>2</sup>	No	No	No
2/25/2015	13:21:00	Compliance	D-CON-150225	32.68964	-117.14643	7.4	7.9	1.3 <sup>2</sup>	No	No	No
2/25/2015	13:23:00	Compliance	D-COS-150225	32.68919	-117.14548	7.5	8.0	1.3 <sup>2</sup>	No	No	No
2/25/2015	13:26:00	Compliance	D-CNS-150225	32.68936	-117.14381	7.4	8.0	2.0 <sup>2</sup>	No	No	No

## Table F-6

### Water Quality Monitoring Results During Dredging or Debris Removal - February 1 through February 28, 2015

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG; if natural

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

NR = not recorded

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Compliance station result for turbidity exceeded 20 percent of the reference station (BG). Based on visual observations and low turbidity at the early warning stations (less than or similar to the reference station), potential exceedances were not attributed to construction-related activities and are likely a result of natural variability.

3 The GPS malfunctioned and was unable to be repaired. This malfunction did not affect the locations of testing because the water quality team uses a laser range finder to ensure correct distances from the construction area.

**Table F-7**  
**Water Quality Monitoring Results During Dredging or Debris Removal - March 1 through March 31, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
3/3/2015	12:13:00	Reference	D-BG-150303	32.69214	-117.15088	7.9	8.0	1.6	No	No	No
3/3/2015	12:26:00	Early Warning	D-EWS-150303	32.68954	-117.14492	7.9	8.0	1.5	No	No	No
3/3/2015	12:29:00	Compliance	D-CNS-150303	32.68974	-117.14379	7.7	8.0	1.7	No	No	No
3/3/2015	12:34:00	Compliance	D-COS-150303	32.68904	-117.14509	8.0	8.0	1.4	No	No	No
3/3/2015	12:39:00	Early Warning	D-EWN-150303	32.69776	-117.14693	7.9	8.0	1.8	No	No	No
3/3/2015	12:42:00	Compliance	D-CON-150303	32.69073	-117.14797	8.1	8.0	1.6	No	No	No
3/3/2015	12:53:00	Compliance	D-CNN-150303	32.69165	-117.14791	7.9	8.0	2.2 <sup>2</sup>	No	No	No
3/9/2015	12:10:00	Reference	D-BG-150309	32.69208	-117.15096	8.3	8.0	1.3	No	No	No
3/9/2015	12:20:00	Early Warning	D-EWN-150309	32.69134	-117.14719	8.1	8.0	0.6	No	No	No
3/9/2015	12:23:00	Early Warning	D-EWS-150309	32.69062	-117.14635	8.0	8.0	0.9	No	No	No
3/9/2015	12:27:00	Compliance	D-CON-150309	32.69084	-117.14776	8.0	8.0	1.4	No	No	No
3/9/2015	12:31:00	Compliance	D-COS-150309	32.69013	-117.14700	8.2	8.0	1.4	No	No	No
3/9/2015	12:36:00	Compliance	D-CNS-150309	32.69029	-117.14534	8.1	8.0	1.2	No	No	No
3/9/2015	12:46:00	Compliance	D-CNN-150309	32.69165	-117.14830	8.1	8.0	1.4	No	No	No
3/16/2015	14:09:30	Reference	D-BG-150316	32.69223	-117.15084	7.4	7.9	2.7	No	No	No
3/16/2015	14:39:48	Early Warning	D-EWN-150316	32.69132	-117.14694	7.6	8.0	2.6	No	No	No
3/16/2015	14:43:34	Early Warning	D-EWS-150316	32.69091	-117.1460	7.5	8.0	4.1	No	No	No
3/16/2015	14:50:04	Compliance	D-CON-150316	32.69087	-117.14741	7.5	8.0	2.9	No	No	No
3/16/2015	15:01:57	Compliance	D-COS-150316	32.69028	-117.14633	7.6	8.0	3.6 <sup>2</sup>	No	No	No
3/16/2015	15:09:07	Compliance	D-CNS-150316	32.69045	-117.1450	7.4	8.0	4.1 <sup>2</sup>	No	No	No
3/16/2015	15:18:56	Compliance	D-CNN-150316	32.69123	-117.14812	7.6	8.0	3.6 <sup>2</sup>	No	No	No
3/24/2015	10:55:00	Reference	R-BG-150324	32.69191	-117.15067	7.5	7.9	0.9	No	No	No
3/24/2015	11:05:00	Early Warning	R-EWN-150324	32.69097	-117.14687	7.4	8.0	2.7	No	No	No
3/24/2015	11:09:00	Early Warning	R-EWS-150324	32.69019	-117.14606	7.6	8.0	2.6	No	No	No
3/24/2015	11:14:00	Compliance	R-CON-150324	32.69049	-117.14722	7.5	8.0	2.0 <sup>2</sup>	No	No	No
3/24/2015	11:18:00	Compliance	R-COS-150324	32.68975	-117.14592	7.5	8.0	2.1 <sup>2</sup>	No	No	No
3/24/2015	11:21:00	Compliance	R-CNS-150324	32.69037	-117.14505	7.2	8.0	3.2 <sup>2</sup>	No	No	No
3/24/2015	11:31:00	Compliance	R-CNN-150324	32.69109	-117.14790	7.5	8.0	2.0 <sup>2</sup>	No	No	No

**Table F-7**  
**Water Quality Monitoring Results During Dredging or Debris Removal - March 1 through March 31, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
3/30/2015	14:26:48	Reference	R-BG-150330	32.69201	-117.15073	7.4	7.9	4.0	No	No	No
3/30/2015	14:40:44	Early Warning	R-EWN-150330	32.69200	-117.14635	7.5	8.0	5.8	No	No	No
3/30/2015	14:44:38	Early Warning	R-EWS-150330	32.69140	-117.14563	7.5	8.0	4.0	No	No	No
3/30/2015	14:49:03	Compliance	R-CON-150330	32.69129	-117.14697	7.6	8.0	4.6	No	No	No
3/30/2015	14:52:21	Compliance	R-COS-150330	32.69074	-117.14610	7.4	8.0	4.4	No	No	No
3/30/2015	14:57:44	Compliance	R-CNS-150330	32.69099	-117.14463	7.5	8.0	4.1	No	No	No
3/30/2015	15:09:46	Compliance	R-CNN-150330	32.69176	-117.14736	7.4	8.0	4.8	No	No	No

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Compliance station result for turbidity exceeded 20 percent of the reference station (BG). Based on visual observations, potential exceedances were not attributed to construction-related activities and are likely a result of natural variability.

Table F-8

## Water Quality Monitoring Results During Dredging and Debris Removal - April 1 through April 30, 2015

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
4/10/2015	13:05:45	Reference	D-BG-150410	32.69184	-117.15064	7.4	8.3	1.6	No	Yes	No
4/10/2015	13:35:50	Early Warning	D-EWN-150410	32.69010	-117.14537	7	8.3	1.2	No	No	No
4/10/2015	13:40:08	Early Warning	D-EWS-150410	32.68907	-117.14373	7.2	8.3	1.8	No	No	No
4/10/2015	13:44:19	Compliance	D-CNS-150410	32.68965	-117.14255	7.2	8.3	1.8	No	No	No
4/10/2015	13:48:09	Compliance	D-COS-150410	32.68828	-117.14410	7.1	8.3	2.0 <sup>2</sup>	No	No	No
4/10/2015	13:54:06	Compliance	D-CON-150410	32.68977	-117.14579	7.2	8.2	1.1	No	No	No
4/10/2015	13:58:42	Compliance	D-CNN-150410	32.69158	-117.14549	7.2	8.2	1.5	No	No	No
4/14/2015	13:08:06	Reference	D-BG-150415	32.69212	-117.15086	7.7	8.0	0.7	No	No	No
4/14/2015	13:23:40	Early Warning	D-EWS-150415	32.68881	-117.14362	7.6	8.2	0.7	No	No	No
4/14/2015	13:29:52	Early Warning	D-EWN-150415	32.69000	-117.14574	7.7	8.2	0.8	No	No	No
4/14/2015	13:35:47	Compliance	D-CNN-150415	32.69145	-117.14568	7.4	8.2	0.8	No	No	No
4/14/2015	13:39:03	Compliance	D-CON-150415	32.68979	-117.14618	7.8	8.2	0.7	No	No	No
4/14/2015	13:42:58	Compliance	D-COS-150415	32.68862	-117.14412	7.8	8.2	0.8	No	No	No
4/14/2015	13:48:18	Compliance	D-CNS-150415	32.68914	-117.14273	7.7	8.2	0.8	No	No	No
4/20/2015	12:02:26	Reference	D-BG-150420	32.69210	-117.15072	7.8	8.0	2.1	No	No	No
4/20/2015	12:14:23	Early Warning	D-EWN-150420	32.68999	-117.14541	7.5	8.0	1.8	No	No	No
4/20/2015	12:20:36	Early Warning	D-EWS-150420	32.68951	-117.14389	7.4	8.0	2.5	No	No	No
4/20/2015	12:27:10	Compliance	D-CNS-150420	32.68921	-117.14279	7.5	8.0	2.5	No	No	No
4/20/2015	12:42:56	Compliance	D-COS-150420	32.68870	-117.14435	7.6	8.0	2.4	No	No	No
4/20/2015	12:46:19	Compliance	D-CON-150420	32.68938	-117.14582	7.6	8.0	2.3	No	No	No
4/20/2015	12:49:55	Compliance	D-CNN-150420	32.69123	-117.14598	7.4	8.0	3.5 <sup>2</sup>	No	No	No
4/29/2015	14:03:09	Compliance	D-CNN-20150429	32.69165	117.14822	8.0	8.0	1.2	No	No	No
4/29/2015	13:21:08	Reference	D-BG-20150429	32.69194	117.15060	7.8	7.9	2.1	No	No	No
4/29/2015	13:32:25	Early Warning	D-EWS-20150429	32.69027	117.14160	7.9	7.8	1.0	No	No	No
4/29/2015	13:37:04	Early Warning	D-EWN-20150429	32.69104	117.14743	7.9	8.0	2.0	No	No	No
4/29/2015	13:39:44	Compliance	D-CON-20150429	32.69025	117.14820	7.8	8.0	2.5	No	No	No
4/29/2015	13:45:40	Compliance	D-COS-20150429	32.68943	117.14623	7.9	8.0	3.0 <sup>2</sup>	No	No	No
4/29/2015	13:47:16	Compliance	D-CNS-20150429	32.69028	117.14422	7.7	8.0	2.6 <sup>2</sup>	No	No	No

**Table F-8**  
**Water Quality Monitoring Results During Dredging and Debris Removal - April 1 through April 30, 2015**

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG; if natural turbidity

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 The compliance station result for turbidity exceeded 20 percent of the reference station (BG). Based on visual observations and low turbidity at the early warning stations (less than or similar to the reference station), the potential exceedance was not attributed to construction-related activities and is likely a result of natural variability.

Table F-9

## Water Quality Monitoring Results During Dredging, Debris Removal, and Sand Placement - May 1 through May 31, 2015

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
5/4/2015	11:04:18	Reference	D-BG-20150504	32.69209	-117.15089	7.0	8.0	4.9	No	No	No
5/4/2015	11:11:12	Early Warning	D-EWS-20150504	32.68984	-117.15290	6.8	8.0	4.7	No	No	No
5/4/2015	11:16:04	Early Warning	D-EWN-20150504	32.69120	-117.14724	6.8	8.1	6.2	No	No	No
5/4/2015	11:20:51	Compliance	D-COS-20150504	32.68952	-117.14640	6.8	8.1	6.0 <sup>4</sup>	No	No	No
5/4/2015	11:25:40	Compliance	D-CNS-20150504	32.69047	-117.14413	6.8	8.1	7.7 <sup>4</sup>	No	No	No
5/4/2015	11:37:19	Compliance	D-CON-20150504	32.69120	-117.14852	6.9	8.1	5.3	No	No	No
5/4/2015	11:40:36	Compliance	D-CNN-20150504	32.69236	-117.14837	6.8	8.1	11.3 <sup>5</sup>	No	No	No
5/4/2015	11:52:22	Reference	D-BG-20150504	32.69209	-117.15089	7.0	8.0	6.7	No	No	No
5/4/2015	11:56:13	Compliance	D-CNN-20150504	32.69236	-117.14837	6.9	8.1	8.6 <sup>5</sup>	No	No	No
5/4/2015	12:09:46	Compliance	D-CNS-20150504	32.69047	-117.14413	6.9	8.1	7.7	No	No	No
5/4/2015	12:15:12	Compliance	D-COS-20150504	32.68952	-117.14640	6.8	8.1	7.2	No	No	No
5/11/2015	10:33:30	Reference	D-BG-20150511	32.69201	-117.15082	7.1	8.1	1.9	No	No	No
5/11/2015	10:41:44	Early Warning	D-EWS-20150511	32.68948	-117.14368	7.5	8.2	2.1	No	No	No
5/11/2015	10:44:33	Early Warning	D-EWN-20150511	32.69005	-117.14540	7.3	8.1	3.5	No	No	No
5/11/2015	10:51:22	Compliance	D-CNS-20150511	32.68924	-117.14289	7.6	8.2	3.5 <sup>6</sup>	No	No	No
5/11/2015	10:59:03	Compliance	D-COS-20150511	32.68876	-117.14396	7.1	8.1	4.2 <sup>6</sup>	No	No	No
5/11/2015	11:09:02	Compliance	D-CON-20150511	32.68977	-117.14568	7.2	8.1	4.2 <sup>6</sup>	No	No	No
5/11/2015	11:14:32	Compliance	D-CNN-20150511	32.69119	-117.14582	7.0	8.1	4.3 <sup>6</sup>	No	No	No
5/23/2015	11:07:50	Reference	D-BG-20150523	32.69222	-117.15086	7.7	7.9	1.5	No	No	No
5/23/2015	11:20:29	Early Warning	D-EWN-20150523	32.69062	-117.14632	7.3	8.1	1.4	No	No	No
5/23/2015	11:24:02	Early Warning	D-EWS-20150523	32.68987	-117.14513	7.3	8.1	2.4	No	No	No
5/23/2015	11:33:01	Compliance	D-CNS-20150523	32.68937	-117.14306	7.2	8.1	2.0 <sup>6</sup>	No	No	No
5/23/2015	11:40:24	Compliance	D-COS-20150523	32.68843	-117.14412	7.3	8.1	3.0 <sup>6</sup>	No	No	No
5/23/2015	11:44:28	Compliance	D-CON-20150523	32.69005	-117.14686	7.2	8.1	3.2 <sup>6</sup>	No	No	No
5/23/2015	11:50:11	Compliance	D-CNN-20150523	32.69111	-117.14709	7.4	8.1	2.6 <sup>6</sup>	No	No	No
5/28/2015	17:42:00	Reference	P-BG-150528	32.69187	-117.15086	8.1	7.9	1.7	No	No	No
5/28/2015	17:51:00	Early Warning	P-EWN-150528	32.69030	-117.14706	7.0	7.9	4.8	No	No	No
5/28/2015	17:55:00	Early Warning	P-EWS-150528	32.68882	-117.14452	7.1	8.0	2.2	No	No	No
5/28/2015	18:00:00	Compliance	P-CNS-150528	32.68928	-117.14265	7.1 <sup>2</sup>	7.9	2.2 <sup>7</sup>	No	No	No



**Table F-9**

**Water Quality Monitoring Results During Dredging, Debris Removal, and Sand Placement - May 1 through May 31, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
5/28/2015	18:05:00	Compliance	P-COS-150528	32.68821	-117.14440	7.2 <sup>2</sup>	8.0	2.8 <sup>7</sup>	No	No	No
5/28/2015	18:16:00	Compliance	P-CON-150528	32.68997	-117.14708	7.2 <sup>2</sup>	8.0	3.4 <sup>8</sup>	No	No	No
5/28/2015	18:30:00	Compliance	P-CNN-150528	32.69176	-117.14661	6.9 <sup>2</sup>	7.9	7.1 <sup>8</sup>	No	No	No
5/28/2015	18:36:00	Reference	P-BG-150528	32.69187	-117.15086	7.7	7.9	2.4	No	No	No
5/29/2105	15:08:00	Reference	P-BG-150529	32.69176	-117.15075	8.8	7.7	3.9	No	No	No
5/29/2105	15:18:00	Early Warning	P-EWS-150529	32.68885	-117.14430	8.1	7.9	4.2	No	No	No
5/29/2105	15:24:00	Early Warning	P-EWN-150529	32.69037	-117.14632	8.9	7.9	3.9	No	No	No
5/29/2105	15:29:00	Compliance	P-CNS-150529	32.68950	-117.14297	9.3	7.9	4.9 <sup>9</sup>	No	No	No
5/29/2105	15:38:00	Compliance	P-COS-150529	32.68848	-117.14375	9.1	8.0 <sup>3</sup>	4.8 <sup>9</sup>	No	No	No
5/29/2105	15:50:00	Compliance	P-CON-150529	32.69046	-117.14647	9.8	8.1 <sup>3</sup>	5.2 <sup>9</sup>	No	No	No
5/29/2105	15:54:00	Compliance	P-CNN-150529	32.69194	-117.14662	9.1	8.1 <sup>3</sup>	6.9 <sup>9</sup>	No	No	No
5/30/2015	10:30:00	Reference	P-BG-150530	32.69178	-117.15086	9.7	7.9	4.0	No	No	No
5/30/2015	10:47:00	Early Warning	P-EWN-150530	32.69081	-117.14635	9.8	7.7	5.3	No	No	No
5/30/2015	10:55:00	Early Warning	P-EWS-150530	32.68990	-117.14472	10.1	8.0	3.8	No	No	No
5/30/2015	11:02:00	Compliance	P-CNS-150530	32.68971	-117.14301	9.8	8.1	3.3	No	No	No
5/30/2015	11:07:00	Compliance	P-COS-150530	32.68892	-117.14455	10.4	7.9	3.8	No	No	No
5/30/2015	11:14:00	Compliance	P-CON-150530	32.69038	-117.14666	9.9	7.9	3.8	No	No	No
5/30/2015	11:21:00	Compliance	P-CNN-150530	32.69216	-117.14672	9.8	7.9	6.5 <sup>9</sup>	No	No	No

**Table F-9**

**Water Quality Monitoring Results During Dredging, Debris Removal, and Sand Placement - May 1 through May 31, 2015**

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG); if

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

NR = not recorded

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Compliance station result for DO depressed more than 10 percent from the reference station (BG). Measurements retaken at the reference station and DO concentrations were within 10 percent of the confirmatory measurement; therefore, compliance criteria were not exceeded.

3 Compliance station result for pH more than 0.2 unit from the reference station (BG). Based on pH results at the early warning stations (within 0.2 unit of the reference station), the potential exceedances were not attributed to construction-related activities and are likely a result of natural variability.

4 The compliance station result for turbidity exceeded 20 percent of the reference station (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. Turbidity concentrations were not greater than 20 percent of the subsequent reference station measurement; therefore, compliance criteria were not exceeded.

5 The compliance station result for turbidity exceeded 20 percent of the reference station (BG). Measurements were retaken at the reference and compliance stations to confirm the exceedance. Turbidity concentrations were greater than 20 percent of the subsequent reference station measurement; therefore, the initial result was confirmed. Dredging best management practices were evaluated and found to be working properly. Visual observations indicate that the potential exceedance was likely caused by high winds and surface conditions and was not a result of construction-related activities.

6 Compliance station result for turbidity exceeded 20 percent of the reference station (BG). Based on visual observations, the potential exceedances were not attributed to construction-related activities and are likely a result of natural variability.

7 Compliance station result for turbidity exceeded 20 percent of the reference station (BG). Measurements were retaken at the reference station and turbidity concentrations were not greater than 20 percent of the subsequent reference station measurement; therefore, compliance criteria were not exceeded.

8 Compliance station result for turbidity exceeded 20 percent of the reference station (BG). Measurements were retaken at the reference station and turbidity concentrations were greater than 20 percent of the subsequent reference measurement. Based on visual observations, the potential exceedances were not attributed to construction-related activities and are likely a result of natural variability.

9 Compliance station result for turbidity exceeded 20 percent of the reference station (BG). Based on visual observations and low turbidity at the early warning stations (less than or similar to the reference station), the potential exceedances were not attributed to construction-related activities and are likely a result of natural variability.

**Table F-10**  
**Water Quality Monitoring Results During Dredging - June 1 through June 30, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
6/3/2015	13:04:00	Reference	P-BG-150603	32.69263	-117.15147	7.6	7.8	3.4	No	No	No
6/3/2015	13:20:44	Early Warning	P-EWS-150603	32.68913	-117.14450	7.6	7.8	3.0	No	No	No
6/3/2015	13:24:47	Early Warning	P-EWN-15063	32.69055	-117.14556	7.5	7.8	2.9	No	No	No
6/3/2015	13:30:41	Compliance	P-CNN-150603	32.69116	-117.14700	7.5	7.8	3.5	No	No	No
6/3/2015	13:36:28	Compliance	P-CON-150603	32.69055	-117.14635	7.6	7.8	3.1	No	No	No
6/3/2015	13:41:38	Compliance	P-COS-150603	32.68929	-117.14493	7.7	7.9	3.3	No	No	No
6/3/2015	13:47:21	Compliance	P-CNS-150603	32.68908	-117.14365	7.7	7.9	3.2	No	No	No
6/9/2015	10:51:31	Reference	R-BG-150609	32.69218	-117.15093	7.9	7.9	0.9	No	No	No
6/9/2015	11:09:36	Early Warning	R-EWS-150609	32.68854	-117.14537	7.8	7.6	0.4	No	No	No
6/9/2015	11:14:00	Early Warning	R-EWN-150609	32.68854	-117.14537	7.6	7.9	0.4	No	No	No
6/9/2015	11:21:36	Compliance	R-CNN-150609	32.69147	-117.14680	7.9	7.9	0.2	No	No	No
6/9/2015	11:24:53	Compliance	R-CON-150609	32.69148	-117.14683	7.9	7.9	0.1	No	No	No
6/9/2015	11:30:15	Compliance	R-COS-150609	32.68992	-117.14552	7.8	7.9	0.3	No	No	No
6/9/2015	11:32:38	Compliance	R-CNS-150609	32.69081	-117.14383	7.6	7.9	0.2	No	No	No
6/16/2015	10:19:44	Reference	D-BG-150616	32.69222	-117.15097	7	7.9	0.6	No	No	No
6/16/2015	10:55:03	Early Warning	D-EWN-150616	32.69093	-117.14590	6.7	7.9	0.5	No	No	No
6/16/2015	11:01:40	Early Warning	D-EWS-150616	32.69018	-117.14448	6.7	7.9	1 <sup>3</sup>	No	No	No
6/16/2015	11:08:26	Compliance	D-CNN-150616	32.69081	-117.14761	6.7	7.9	0.3	No	No	No
6/16/2015	11:43:09	Compliance	D-CON-150616	32.69064	-117.14632	6.8	7.9	0.2	No	No	No
6/16/2015	11:47:51	Compliance	D-COS-150616	32.68981	-117.14476	6.8	7.9	1 <sup>3</sup>	No	No	No
6/16/2015	11:59:48	Compliance	D-CNS-150616	32.68907	-117.14371	6.8	7.9	1 <sup>3</sup>	No	No	No
6/23/2015	10:05:40	Reference	P-BG-150623	32.15100	-117.69240	7.2	7.6	0.6	No	No	No
6/23/2015	11:17:40	Early Warning	P-EWS-150623	32.69015	-117.14526	7.3	7.9	1.1	No	No	No
6/23/2015	11:25:10	Early Warning	P-EWN-150623	32.69039	-117.14641	7.2	7.9	0.8	No	No	No
6/23/2015	11:28:34	Compliance	P-CNN-150623	32.69155	-117.14675	7.3	7.9	0.9 <sup>3</sup>	No	No	No
6/23/2015	11:32:58	Compliance	P-CNN-150623	32.69016	-117.14728	7.3	7.9 <sup>2</sup>	0.7	No	No	No
6/23/2015	11:37:32	Compliance	P-COS-150623	32.68970	-117.14537	7.2	7.9 <sup>2</sup>	0.7	No	No	No
6/23/2015	11:44:32	Compliance	P-CNS-150623	32.68957	-117.14286	7	7.9 <sup>2</sup>	0.2	No	No	No
6/29/2015	10:25:35	Reference	R-BG-150629	32.69156	-117.15080	6.3	16	1.6	No	No	No

**Table F-10**  
**Water Quality Monitoring Results During Dredging - June 1 through June 30, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
6/29/2015	10:39:33	Early Warning	R-EWS-150629	32.68880	-117.14388	6.2	7.9	1.2	No	No	No
6/29/2015	10:45:35	Early Warning	R-EWN-150629	32.69045	-117.14637	6.3	8.0	1.5	No	No	No
6/29/2015	10:52:52	Compliance	R-CNN-150629d	32.69182	-117.14666	6.2	7.9	2.6	No	No	No
6/29/2015	10:57:16	Compliance	R-CON_150629	32.69189	-117.14668	6.3	7.9	1.9	No	No	No
6/29/2015	11:09:32	Compliance	R-CNS-150629	32.68905	-117.14470	6.2	7.9	1.2	No	No	No
6/29/2015	11:13:42	Compliance	R-COS-150629	32.68976	-117.14311	6.2	7.9	1.9	No	No	No

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG); if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

NR = not recorded

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Early warning and compliance station result for pH differed more than 0.2 unit from the reference station (BG); therefore, compliance criterion was exceeded.

3 Early warning and compliance station result for turbidity exceeded 20 percent of the reference station (BG); therefore, compliance criterion was exceeded.

Table F-11

## Water Quality Monitoring Results During Dredging and Sand Placement - July 1 through July 31, 2015

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
7/6/2015	13:16:00	Reference	P-BG-150706	32.69250	-117.05660	6.9	8.0	0.7	No	No	No
7/6/2015	13:28:00	Early Warning	P-EWS-150706	32.69039	-117.16186	6.6	7.9	0.7	No	No	No
7/6/2015	13:36:00	Early Warning	P-EWN-150706	32.69069	-117.14163	6.6	8.0	0.7	No	No	No
7/6/2015	13:39:00	Compliance	P-CNN-150706	32.69064	-117.14672	6.7	8.0	0.8	No	No	No
7/6/2015	13:44:00	Compliance	P-CON-150706	32.69175	-117.14713	6.6	8.0	0.8	No	No	No
7/6/2015	13:49:00	Compliance	P-CNS-150706	32.68979	-117.14500	6.6	8.0	0.7	No	No	No
7/6/2015	13:53:00	Compliance	P-COS-150706	32.69023	-117.14439	6.7	8.0	0.7	No	No	No
7/14/2015	13:44:09	Reference	D-BG-150714	32.69228	-117.15104	7.5	8.0	4.8	No	No	No
7/14/2015	14:11:39	Early Warning	D-EWN-150714	32.69012	-117.14564	7.5	8.0	4.2	No	No	No
7/14/2015	14:15:54	Early Warning	D-EWS-150714	32.68901	-117.14393	7.5	8.0	3.5	No	No	No
7/14/2015	14:19:17	Compliance	D-CNS-150714	32.68902	-117.14311	7.5	8.0	3.2	No	No	No
7/14/2015	14:22:09	Compliance	D-COS-150714	32.68822	-117.14438	7.5	8.0	2.8	No	No	No
7/14/2015	14:29:28	Compliance	D-CON-150714	32.68983	-117.14601	7.5	8.0	4.8	No	No	No
7/14/2015	14:34:25	Compliance	D-CNN-150714	32.69031	-117.14541	7.3	8.0	3.5	No	No	No
7/21/2015	12:27:44	Reference	D-BG-150721	32.69188	-117.15070	7.1	8.0	0.2	No	No	No
7/21/2015	12:40:11	Early Warning	D-EWN-150721	32.68927	-117.14476	6.6	7.9	0.3	No	No	No
7/21/2015	12:54:39	Early Warning	D-EWS-150721	32.68938	-117.14356	6.7	8.0	3.7	No	No	No
7/21/2015	12:47:01	Compliance	D-CNN-150721	32.68954	-117.14560	6.7	8.0	0.3 <sup>2</sup>	No	No	No
7/21/2015	13:20:38	Compliance	D-CNS-150721	32.68842	-117.14252	6.9	8.0	0.2	No	No	No
7/21/2015	13:24:39	Compliance	D-COS-150721	32.68789	-117.14365	7.1	8.0	0.2	No	No	No
7/21/2015	13:29:00	Compliance	D-CON-150721	32.68857	-117.14538	6.8	8.0	1.3 <sup>2</sup>	No	No	No
7/28/2015	11:09:21	Reference	D-BG-150728	32.69201	-117.15110	6.7	8.1	0.8	No	No	No
7/28/2015	11:20:25	Early Warning	D-EWN-150728	32.69137	-117.14737	6.8	8.1	0.9	No	No	No
7/28/2015	11:30:50	Early Warning	D-CNS-150728	32.69118	-117.14445	6.7	8.1	1.0	No	No	No
7/28/2015	11:25:41	Compliance	D-EWS-150728	32.69135	-117.14552	6.7	8.1	0.9	No	No	No
7/28/2015	11:36:00	Compliance	D-COS-150728	32.68991	-117.14576	6.9	8.2	0.7	No	No	No
7/28/2015	11:45:28	Compliance	D-CON-150728	32.69144	-117.14813	6.8	8.2	0.2	No	No	No
7/28/2015	11:48:57	Compliance	D-CNN-150728	32.69278	-117.14741	6.8	8.1	0.7	No	No	No

**Table F-11**  
**Water Quality Monitoring Results During Dredging and Sand Placement - July 1 through July 31, 2015**

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Early warning and compliance station result for turbidity exceeded 20 percent of the reference station (BG); therefore, compliance criterion was exceeded.

Table F-12

## Water Quality Monitoring Results During Dredging, Debris Removal, and Sand Placement - August 1 through August 31, 2015

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
8/6/2015	16:18:16	Reference	D-BG-150806	32.69222	-117.15128	7.0	7.9	0.6	No	No	No
8/6/2015	16:38:57	Early Warning	D-EWS-150806	32.69092	-117.14622	6.8	7.9	0.7	No	No	No
8/6/2015	16:51:30	Early Warning	D-EWN-150806	32.69158	-117.14760	6.9	7.9	1.0	No	No	No
8/6/2015	16:43:17	Compliance	D-CNS-150806	32.69208	-117.14522	7.0	7.9	1.1 <sup>2</sup>	No	No	No
8/6/2015	16:47:57	Compliance	D-COS-150806	32.69028	-117.14686	6.9	7.9	0.8 <sup>2</sup>	No	No	No
8/6/2015	16:56:12	Compliance	D-CNN-150806	32.69300	-117.14720	6.8	7.9	4.3 <sup>2</sup>	No	No	No
8/6/2015	17:02:16	Compliance	D-CON-150806	32.69158	-117.14834	6.9	7.9	0.5	No	No	No
8/11/2015	13:03:57	Reference	D-BG-150811	32.69213	-117.15099	7.2	7.9	4.1	No	No	No
8/11/2015	13:13:08	Early Warning	D-EWN-150811	32.69165	-117.14769	6.9	7.9	2.6	No	No	No
8/11/2015	13:29:00	Early Warning	D-EWS-150811	32.69051	-117.14644	7.2	7.9	2.9	No	No	No
8/11/2015	13:20:18	Compliance	D-CON-150811	32.69271	-117.14753	6.9	7.9	2.7	No	No	No
8/11/2015	13:24:12	Compliance	D-CON-150811	32.69120	-117.14827	7.2	7.9	2.4	No	No	No
8/11/2015	13:32:55	Compliance	D-COS-150811	32.69016	-117.14693	7.2	7.9	3.5	No	No	No
8/11/2015	13:37:52	Compliance	D-CNS-150811	32.69205	-117.14512	6.9	7.9	2.0	No	No	No
8/18/2015	14:15:00	Reference	D-BG-150818	32.69213	-117.15099	7.3	8.0	0.8	No	No	No
8/18/2015	14:34:00	Early Warning	D-EWN-150818	32.69122	-117.14570	7.0	8.0	0.8	No	No	No
8/18/2015	14:36:00	Early Warning	D-EWS-150818	32.69117	-117.14510	7.0	8.0	0.9	No	No	No
8/18/2015	14:27:00	Compliance	D-CNN-150818	32.69203	-117.14610	7.0	8.0	2.2 <sup>2</sup>	No	No	No
8/18/2015	14:32:00	Compliance	D-CON-150818	32.69080	-117.14640	7.1	8.0	0.8	No	No	No
8/18/2015	14:40:00	Compliance	D-COS-150818	32.69037	-117.14550	7.1	8.0	0.9	No	No	No
8/18/2015	14:42:00	Compliance	D-CNS-150818	32.69057	-117.14480	7.0	8.0	0.6	No	No	No
8/26/2105	10:12:00	Reference	P-BG-150826	32.69170	-117.15079	7.5	7.7	2.9	No	No	No
8/26/2105	10:24:00	Early Warning	P-EWN-150826	32.36921	-117.14505	7.7	7.8	2.9	No	No	No
8/26/2105	10:35:00	Early Warning	P-EWS-150826	32.69112	-117.14343	7.2	7.7	1.9	No	No	No
8/26/2105	10:39:00	Compliance	P-CNS-150826	32.69134	-117.14337	7.6	7.7	2.9	No	No	No
8/26/2105	10:48:00	Compliance	P-COS-150826	32.69072	-117.14481	7.2	7.8	2.7	No	No	No
8/26/2105	11:01:00	Compliance	P-CNN-150826	32.69225	-117.14501	8.0	7.9	3.8 <sup>2</sup>	No	No	No
8/26/2105	11:05:00	Compliance	P-CON-150826	32.69162	-117.14545	7.7	7.8	2.2	No	No	No

## Table F-12

### Water Quality Monitoring Results During Dredging, Debris Removal, and Sand Placement - August 1 through August 31, 2015

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Compliance station result for turbidity exceeded 20 percent of the reference station (BG); based on visual observations, the potential exceedance was not attributed to construction-related activities and is likely a result of natural variability.



**Table F-13**  
**Water Quality Monitoring Results During Dredging and Sand Placement - September 1 through 31, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
9/1/2015	15:33:57	Reference	P-BG-150901	32.69219	-117.15105	6.8	8.1	1.4	No	No	No
9/1/2015	16:18:44	Early Warning	P-EWN-150901	32.69124	-117.14470	6.5	8.1	2.5	No	No	No
9/1/2015	16:23:17	Early Warning	P-EWS-150901	32.69089	-117.14438	6.5	8.1	2.0	No	No	No
9/1/2015	16:29:41	Compliance	P-CNS-150901	32.69096	-117.14362	6.5	8.1	1.9 <sup>2</sup>	No	No	No
9/1/2015	16:35:56	Compliance	P-COS-150901	32.69052	-117.14475	6.6	8.1	1.7 <sup>2</sup>	No	No	No
9/1/2015	16:38:35	Compliance	P-CON-150901	32.69063	-117.14526	6.6	8.1	1.9 <sup>2</sup>	No	No	No
9/1/2015	16:42:54	Compliance	P-CNN-150901	32.69182	-117.14504	6.5	8.1	3.6 <sup>2</sup>	No	No	No
9/10/2015	13:32:40	Reference	P-BG-1509010	32.69239	-117.15103	7.1	8	0.6	No	No	No
9/10/2015	14:00:48	Early Warning	P-EWN-1509010	32.68406	-117.16231	6.9	8.1	0.4	No	No	No
9/10/2015	14:05:04	Early Warning	P-EWS-1509010	32.69039	-117.14414	6.9	8.1	0.2	No	No	No
9/10/2015	14:09:55	Compliance	P-CNS-1509010	32.68939	-117.14353	6.9	8.1	0.3	No	No	No
9/10/2015	14:13:32	Compliance	P-COS-1509010	32.68925	-117.14508	7	8.1	0.5	No	No	No
9/10/2015	14:15:13	Compliance	P-CON-1509010	32.68981	-117.14720	7.1	8.1	0.8 <sup>2</sup>	No	No	No
9/10/2015	14:20:32	Compliance	P-CNN-1509010	32.69214	-117.14617	6.8	8.1	0.4	No	No	No
9/11/2015	14:32:00	Reference	P-BG-150911	32.69206	-117.15110	7.1	8.1	4.4	No	No	No
9/11/2015	14:39:00	Early Warning	P-EWN-150911	32.69068	-117.14633	7.1	8.1	5.4	No	No	No
9/11/2015	14:46:00	Early Warning	P-EWS-150911	32.68909	-117.14457	7.2	8.1	4	No	No	No
9/11/2015	14:49:00	Compliance	P-CNS-150911	32.68959	-117.14310	7.2	8.1	2.3	No	No	No
9/11/2015	14:53:00	Compliance	P-COS-150911	32.68576	-117.14408	7.1	8.1	3.2	No	No	No
9/11/2015	14:59:00	Compliance	P-CON-150911	32.69060	-117.14721	7.1	8.1	3.8	No	No	No
9/11/2015	15:02:00	Compliance	P-CNN-150911	32.69234	-117.14617	6.8	8.1	3.6	No	No	No
9/14/2015	14:02:47	Reference	P-BG-150914	32.69244	117.15097	6.8	8.0	4.4	No	No	No
9/14/2015	14:12:07	Early Warning	P-EWN-150914	32.69156	117.14556	6.8	8.0	3.3	No	No	No
9/14/2015	14:17:29	Early Warning	P-EWS-150914	32.69086	117.16036	6.8	8.0	4.6	No	No	No
9/14/2015	14:24:17	Compliance	P-CNS-150914	32.68922	117.14369	7.0	8.1	3.6	No	No	No
9/14/2015	14:28:28	Compliance	P-COS-150914	32.68939	117.14486	6.9	8.0	4.9	No	No	No
9/14/2015	14:33:52	Compliance	P-CON-150914	32.69067	117.14608	6.8	8.0	3.8	No	No	No
9/14/2015	14:38:51	Compliance	P-CNN-150914	32.69178	117.14639	6.8	8.0	4.8	No	No	No
9/22/2015	9:58:00	Reference	P-BG-150922	32.69196	-117.15112	8.2	7.6	5.7	No	No	No

**Table F-13**  
**Water Quality Monitoring Results During Dredging and Sand Placement - September 1 through 31, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Surface Pollution	Discoloration or Turbidity
9/22/2015	10:11:00	Early Warning	P-EWN-150922	32.69023	-117.14621	8.3	7.7	5.4	No	No	No
9/22/2015	10:18:00	Early Warning	P-EWS-150922	32.68911	-117.14470	8.3	7.8	4.6	No	No	No
9/22/2015	10:51:00	Compliance	P-CNS-150922	32.69805	-117.14303	7.9	7.6	6.5	No	No	No
9/22/2015	10:54:00	Compliance	P-COS-150922	32.68849	-117.14424	8	7.4	4.3	No	No	No
9/22/2015	11:07:00	Compliance	P-CON-150922	32.69020	-117.14686	8.7	7.4	4.3	No	No	No
9/22/2015	11:18:00	Compliance	P-CNN-150922	32.69320	-117.14568	8	7.4	3.5	No	No	No
9/29/2015	12:02:00	Reference	P-BG-150929	32.69233	-117.15117	6.5	8.1	5.3	No	No	No
9/29/2015	12:14:00	Early Warning	P-EWN-150929	32.68997	-117.14506	6.5	8.1	3.9	No	No	No
9/29/2015	12:19:00	Early Warning	P-EWS-150929	32.68911	-117.14622	6.5	8.1	4.1	No	No	No
9/29/2015	12:24:00	Compliance	P-CNS-150929	32.68969	-117.14292	6.5	8.2	2.5	No	No	No
9/29/2015	12:28:00	Compliance	P-COS-150929	32.68847	-117.14467	6.6	8.2	3.2	No	No	No
9/29/2015	12:33:00	Compliance	P-CON-150929	32.68908	-117.14561	6.6	8.2	2.2	No	No	No
9/29/2015	12:37:00	Compliance	P-CNN-150929	32.69094	-117.14472	6.5	8.2	2.5	No	No	No

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference (BG); pH shall not be changed more than 0.2 unit from reference (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of reference (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

NR = not recorded

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Compliance station results for turbidity exceeded 20 percent of the reference (BG). Based on visual observations, the potential exceedance was not attributed to construction-related activities and is likely a result of natural variability.

**Table F-14**

**Water Quality Monitoring Results During Dredging, Sand Placement, and Debris Removal - October 1 through October 31, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
10/5/2015	14:00:00	Reference	R-BG-151005	32.69216	-117.15132	8.4	7.9	3.0	No	No	No
10/5/2015	14:14:00	Early Warning	R-EWN-151005	32.68949	-117.14353	9.1	8	4.7	No	No	No
10/5/2015	14:24:00	Early Warning	R-EWS-151005	32.68916	-117.14331	8.7	8	4.6	No	No	No
10/5/2015	14:30:00	Compliance	R-CNS-151005	32.68858	-117.14264	8.6	8	2.9	No	No	No
10/5/2015	14:34:00	Compliance	R-COS-151005	32.68823	-117.14384	8.9	8.1	2.8	No	No	No
10/5/2015	14:45:00	Compliance	R-CNN-151005	32.69117	-117.14434	8.5	8	2.8	No	No	No
10/5/2015	14:52:00	Compliance	R-CON-151005	32.68940	-117.14475	8.6	8.1	2.9	No	No	No
10/14/2015	12:09:28	Reference	R-BG-151014	32.69228	-117.15103	8.1	8.2	6.6	No	No	No
10/14/2015	12:41:32	Early Warning	R-EWN-151014	32.68903	-117.14428	8.2	8.1	5.9	No	No	No
10/14/2015	12:45:48	Early Warning	R-EWS-151014	32.68878	-117.14350	7.8	8.2	4.3	No	No	No
10/14/2015	12:50:14	Compliance	R-CNS-151014	32.68856	-117.14278	7.9	8.2	6.1	No	No	No
10/14/2015	12:53:57	Compliance	R-COS-151014	32.68825	-117.14364	8.0	8.2	6.5	No	No	No
10/14/2015	12:56:46	Compliance	R-CON-151014	32.68858	-117.14483	7.9	8.2	5.5	No	No	No
10/14/2015	13:01:38	Compliance	R-CNN-151014	32.69069	-117.14453	8.1	8.2	2.7	No	No	No
10/29/2015	9:07:00	Reference	D-BG-151029	32.69147	-117.15654	8.8	8.0	8.7	No	No	No
10/29/2015	9:16:00	Early Warning	D-EWN-151029	32.69019	-117.14543	9.1	8.1	8.3	No	No	No
10/29/2015	9:20:00	Early Warning	D-EWS-151029	32.67895	-117.14415	8.5	8.1	3.5	No	No	No
10/29/2015	9:25:00	Compliance	D-CNS-151029	32.68974	-117.14260	8.4	8.1	3.1	No	No	No
10/29/2015	9:29:00	Compliance	D-COS-151029	32.68834	-117.14398	8.7	8.2	2.8	No	No	No
10/29/2015	9:38:00	Compliance	D-CON-151029	32.68955	-117.14595	8.8	8.1	3.6	No	No	No
10/29/2015	9:42:00	Compliance	D-CNN-151029	32.69194	-117.14516	8.6	8.1	4.3	No	No	No

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

<sup>1</sup> Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

Table F-15

## Water Quality Monitoring Results during Dredging and Sand Placement - November 1 through 30, 2015

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
11/3/2015	11:05:50	Reference	D-BG-151103	32.69184	-117.15086	6.4	8.3	2.9	No	No	No
11/3/2015	11:45:44	Early Warning	D-EWN-151103	32.69037	-117.14532	6.1	8.3	3.7	No	No	No
11/3/2015	11:51:05	Early Warning	D-EWS-151103	32.68891	-117.14432	6.2	8.4	3.9	No	No	No
11/3/2015	11:55:40	Compliance	D-CNS-151103	32.68992	-117.14293	6.2	8.4	3.1	No	No	No
11/3/2015	11:59:09	Compliance	D-COS-151103	32.68969	-117.14421	6.2	8.4	3.2	No	No	No
11/3/2015	12:06:21	Compliance	D-CON-151103	32.68834	-117.14619	6.2	8.3	2.4	No	No	No
11/3/2015	12:10:19	Compliance	D-CNN-151103	32.69197	-117.14512	6.2	8.3	2.8	No	No	No
11/10/2015	10:59:00	Reference	D-BG-151110	32.69223	-117.15093	6.9	8.0	2.8	No	No	No
11/10/2015	11:13:00	Early Warning	D-EWS-151110	32.68897	-117.16075	7.0	8.0	2.9	No	No	No
11/10/2015	11:17:00	Early Warning	D-EWN-151110	32.69007	-117.16353	6.9	8.0	2.3	No	No	No
11/10/2015	11:44:00	Compliance	D-CNS-151110	32.68923	-117.16030	6.9	8.0	1.9	No	No	No
11/10/2015	11:23:00	Compliance	D-CNN-151110	32.69163	-117.16382	6.8	8.0	2.6	No	No	No
11/10/2015	11:32:00	Compliance	D-CON-151110	32.68970	-117.16277	6.9	8.0	2.2	No	No	No
11/10/2015	11:38:00	Compliance	D-COS-151110	32.68853	-117.16137	7.0	8.0	2.8	No	No	No
11/17/2015	11:30:21	Reference	D-BG-151117	32.69201	-117.15053	7.5	7.8	1.5	No	No	No
11/17/2015	11:42:56	Early Warning	D-EWN-151117	32.69043	-117.14531	7.4	8.0	2.9	No	No	No
11/17/2015	11:47:52	Early Warning	D-EWS-151117	32.68985	-117.14446	7.4	8.0	2.1	No	No	No
11/17/2015	11:54:06	Compliance	D-CNS-151117	32.68985	-117.14325	7.5	8.0	2.1 <sup>2</sup>	No	No	No
11/17/2015	12:00:22	Compliance	D-COS-151117	32.68862	-117.14417	7.5	8.0	2.0 <sup>2</sup>	No	No	No
11/17/2015	12:05:56	Compliance	D-CNN-151117	32.69012	-117.14623	7.5	8.0	1.8 <sup>2</sup>	No	No	No
11/17/2015	12:11:23	Compliance	D-CON-151117	32.69121	-117.14650	7.5	8.0	1.7	No	No	No
11/24/2015	11:35:14	Reference	D-BG-151124	32.69221	-117.15100	7.8	8.0	2.4	No	No	No
11/24/2015	11:46:13	Early Warning	D-EWN-151124	32.69182	-117.14663	7.7	8.0	3.0	No	No	No
11/24/2015	11:50:04	Early Warning	D-EWS-151124	32.69056	-117.14520	7.8	8.0	2.2	No	No	No
11/24/2015	11:55:42	Compliance	D-CNS-151124	32.69044	-117.14426	7.8	8.0	2.3	No	No	No
11/24/2015	11:58:36	Compliance	D-COS-151124	32.68986	-117.14485	7.7	8.0	3.0 <sup>2</sup>	No	No	No
11/24/2015	12:02:21	Compliance	D-CON-151124	32.69071	-117.14791	7.8	8.0	2.2	No	No	No
11/24/2015	12:07:08	Compliance	D-CNN-151124	32.69170	-117.14751	7.7	8.0	1.5	No	No	No

## Table F-15

### Water Quality Monitoring Results during Dredging and Sand Placement - November 1 through 30, 2015

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG; if natural turbidity from 0 to 50 NTU).

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83).

2 Compliance station results for turbidity exceeded 20 percent of the reference station (BG). Based on visual observations, the potential exceedance was not attributed to construction-related activities and is likely a result of natural variability.

**Table F-16**

**Water Quality Monitoring Results during Dredging and Sand Placement - December 1 through December 31, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
12/2/2015	13:16:00	Reference	D-BG-151202	32.69199	-117.15091	8.8	7.7	2.5	No	No	No
12/2/2015	13:33:00	Early Warning	D-EWN-151202	32.69148	-117.14746	9.5	7.7	1.9	No	No	No
12/2/2015	13:44:00	Early Warning	D-EWS-151202	32.69031	-117.14600	8.9	7.9	2.0	No	No	No
12/2/2015	13:49:00	Compliance	D-CNS-151202	32.69078	-117.14478	9.5	7.9	1.7	No	No	No
12/2/2015	13:56:00	Compliance	D-COS-151202	32.68951	-117.14599	8.1	8.0 <sup>2</sup>	1.5	No	No	No
12/2/2015	14:09:00	Compliance	D-CON-151202	32.69057	-117.14787	8.3	8.0 <sup>2</sup>	2.0	No	No	No
12/2/2015	14:26:00	Compliance	D-CNN-151202	32.69247	-117.14644	8.0	7.9	9.5 <sup>3</sup>	No	No	No
12/7/2015	13:02:45	Reference	D-BG-151207	32.69192	-117.15088	8.2	8.0	2.3	No	No	No
12/7/2015	13:12:21	Early Warning	D-EWN-151207	32.69165	-117.14639	8.2	8.0	2.5	No	No	No
12/7/2015	13:16:08	Early Warning	D-EWS-151207	32.69052	-117.14525	7.9	8.0	1.8	No	No	No
12/7/2015	13:20:50	Compliance	D-CNS-151207	32.69113	-117.14371	7.9	8.0	1.3	No	No	No
12/7/2015	13:25:39	Compliance	D-COS-151207	32.68935	-117.14596	8.3	8.0	1.5	No	No	No
12/7/2015	13:29:02	Compliance	D-CON-151207	32.69040	-117.14750	8.1	8.0	2.0	No	No	No
12/7/2015	13:32:51	Compliance	D-CNN-151207	32.69215	-117.14689	8.1	8.1	2.0	No	No	No
12/15/2015	11:53:28	Reference	D-BG-151215	32.69208	-117.15079	7.9	7.9	2.1	No	No	No
12/15/2015	12:02:03	Early Warning	D-EWN-151215	32.69230	-117.14716	8.1	7.9	1.4	No	No	No
12/15/2015	12:12:17	Early Warning	D-EWS-151215	32.69162	-117.14623	7.8	7.9	1.7	No	No	No
12/15/2015	12:16:32	Compliance	D-COS-151215	32.69098	-117.14666	8.0	7.9	1.6	No	No	No
12/15/2015	12:22:24	Compliance	D-CNS-151215	32.69160	-117.14543	7.7	7.9	1.2	No	No	No
12/15/2015	12:37:58	Compliance	D-CON-151215	32.69183	-117.14782	7.9	7.9	1.4	No	No	No
12/15/2015	12:35:18	Compliance	D-CNN-151215	32.69270	-117.14737	8.0	7.9	1.3	No	No	No
12/23/2015	13:18:12	Reference	D-BG-151223	32.69186	-117.15080	9.9	8.3	2.5	No	No	No
12/23/2015	13:25:36	Early Warning	D-EWN-151223	32.69110	-117.14726	10	8.3	0.8	No	No	No
12/23/2015	13:28:20	Early Warning	D-EWS-151223	32.68988	-117.14616	10	8.3	0.7	No	No	No
12/23/2015	13:30:08	Compliance	D-CNS-151223	32.69007	-117.14558	10	8.3	0.4	No	No	No
12/23/2015	13:34:50	Compliance	D-COS-151223	32.68937	-117.14608	10	8.3	2.7	No	No	No
12/23/2015	13:37:10	Compliance	D-CON-151223	32.69037	-117.14797	10	8.3	0.7	No	No	No
12/23/2015	13:42:09	Compliance	D-CNN-151223	32.69198	-117.14728	10	8.3	2.5	No	No	No

**Table F-16**

**Water Quality Monitoring Results during Dredging and Sand Placement - December 1 through December 31, 2015**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
12/30/2015	10:55:19	Reference	P-BG-151230	32.69219	-117.15098	7.9	8.1	0.4	No	No	No
12/30/2015	11:08:22	Early Warning	P-EWN-151230	32.69216	-117.14614	7.9	8.0	0.5	No	No	No
12/30/2015	11:14:43	Early Warning	P-EWS-151230	32.69038	-117.14530	7.8	8.1	0.3	No	No	No
12/30/2015	11:18:45	Compliance	P-CNS-151230	32.69141	-117.14431	7.8	8.0	0.5 <sup>3</sup>	No	No	No
12/30/2015	11:23:42	Compliance	P-COS-151230	32.68976	-117.14580	7.9	8.0	0.2	No	No	No
12/30/2015	11:27:15	Compliance	P-CON-151230	32.69054	-117.14758	7.9	8.0	0.6 <sup>3</sup>	No	No	No
12/30/2015	11:31:35	Compliance	P-CNN-151230	32.69239	-117.14687	8.0	8.0	0.5 <sup>3</sup>	No	No	No

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference station (BG); pH shall not be changed more than 0.2 unit from the reference station (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of the reference station (BG; if natural turbidity from 0 to 50 NTU).

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83)

2 Compliance station result for pH differed more than 0.2 unit from the reference station (BG). Based on visual observations, the potential exceedance was not attributed to construction-related activities and is likely a result of natural variability.

3 Compliance station result for turbidity exceeded 20 percent of the reference station (BG). Based on visual observations, the potential exceedance was not attributed to construction-related activities and is likely a result of natural variability.

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

**Table F-17**

**Water Quality Monitoring Results During Sand Cover Placement - January 1 through January 31, 2016**

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
1/8/2016	10:28:53	Reference	P-BG-160108	32.69192	-117.15088	8.0	8.0	0.5	No	No	No
1/8/2016	10:36:38	Early Warning	P-EWN-160108	32.69165	-117.14638	8.0	8.0	0.5	No	No	No
1/8/2016	10:41:35	Early Warning	P-EWS-160108	32.69017	-117.14552	8.1	8.0	0.4	No	No	No
1/8/2016	10:44:50	Compliance	P-CNS-160108	32.69143	-117.14437	8.0	8.0	0.6	No	No	No
1/8/2016	10:50:34	Compliance	P-COS-160108	32.68963	-117.14616	8.0	8.0	0.5	No	No	No
1/8/2016	10:52:23	Compliance	P-CON-160108	32.68989	-117.14738	8.1	8.0	0.5	No	No	No
1/8/2016	10:57:35	Compliance	P-CNN-160108	32.69171	-117.14751	8.0	8.0	0.4	No	No	No
1/13/2016	12:27:00	Reference	D-BG-160108	32.69208	-117.15132	8.3	8.1	1.0	No	No	No
1/13/2016	12:36:31	Early Warning	D-EWN-160108	32.68929	-117.14524	8.3	8.1	0.6	No	No	No
1/13/2016	12:40:03	Early Warning	D-EWS-160108	32.68870	-117.14470	8.2	8.1	0.8	No	No	No
1/13/2016	12:43:22	Compliance	D-CNS-160108	32.68841	-117.14283	8.3	8.1	0.4	No	No	No
1/13/2016	12:45:20	Compliance	D-COS-160108	32.68843	-117.14375	8.3	8.1	0.4	No	No	No
1/13/2016	12:49:52	Compliance	D-CON-160108	32.68870	-117.14511	8.4	8.1	1.0	No	No	No
1/13/2016	12:53:29	Compliance	D-CNN-160108	32.69160	-117.14437	8.3	8.1	1.0	No	No	No
1/19/2016	10:50:00	Reference	D-BG-160119	32.69207	-117.15108	8.1	8.1	0.9	No	No	No
1/19/2016	10:58:00	Early Warning	D-EWN-160119	32.68948	-117.14840	8.1	8.1	0.5	No	No	No
1/19/2016	11:01:00	Early Warning	D-EWS-160119	32.68860	-117.14347	8.2	8.1	0.5	No	No	No
1/19/2016	11:03:00	Compliance	D-CNS-160119	32.68880	-117.14288	8.1	8.1	0.4	No	No	No
1/19/2016	11:04:00	Compliance	D-COS-160119	32.68809	-117.14354	8.2	8.1	0.3	No	No	No
1/19/2016	11:09:00	Compliance	D-CON-160119	32.68916	-117.14556	8.2	8.1	0.1	No	No	No
1/19/2016	11:13:00	Compliance	D-CNN-160119	32.69084	-117.14512	8.1	8.1	0.6	No	No	No

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference (BG); pH shall not be changed more than 0.2 unit from reference (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of reference (BG; if natural turbidity from 0 to 50 NTU).

<sup>1</sup> Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83)

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units



Table F-18

## Water Quality Monitoring Results During Shoreline Debris Removal - February 2016

Date	Time	Station Type	Station ID	Latitude <sup>1</sup>	Longitude <sup>1</sup>	Water Quality Measurements			Visual Observations		
						DO (mg/L)	pH	Turbidity (NTU)	Odor	Presence of Surface Pollution	Discoloration or Turbidity
2/5/2016	13:32:09	Reference	R-BG-160205	32.69273	-117.15178	8.1	7.9	0.5	No	No	No
2/5/2016	13:38:09	Early Warning	R-EWN-160205	32.69222	-117.14690	7.9	8.0	0.6	No	No	No
2/5/2016	13:40:52	Early Warning	R-EWS-160205	32.69192	-117.14605	8.0	8.0	0.8	No	No	No
2/5/2016	13:43:10	Compliance	R-CNS-160205	32.69165	-117.14545	8.0	8.0	0.6	No	No	No
2/5/2016	13:47:50	Compliance	R-COS-160205	32.69059	-117.14627	7.9	8.0	0.8 <sup>2</sup>	No	No	No
2/5/2016	13:49:48	Compliance	R-CON-160205	32.69147	-117.14732	8.0	8.0	0.4	No	No	No
2/5/2016	13:52:27	Compliance	R-CNN-160205	32.69263	-117.14742	8.0	8.0	0.8 <sup>2</sup>	No	No	No
2/9/2016	11:44:00	Reference	D-BG-160209	32.69120	-117.15102	8.2	8.1	1.1	No	No	No
2/9/2016	11:48:00	Early Warning	D-EWN-160209	32.69219	-117.14675	8.1	8.1	0.4	No	No	No
2/9/2016	11:51:00	Early Warning	D-EWS-160209	32.69214	-117.14586	8.1	8.1	0.3	No	No	No
2/9/2016	11:55:00	Compliance	D-CNS-160209	32.69222	-117.14492	8.1	8.1	0.6	No	No	No
2/9/2016	11:57:00	Compliance	D-COS-160209	32.69178	-117.14532	8.1	8.1	0.7	No	No	No
2/9/2016	12:00:00	Compliance	D-CON-160209	32.69173	-117.14687	8.1	8.1	1.0	No	No	No
2/9/2016	12:04:00	Compliance	D-CNN-160209	32.69257	-117.14699	8.1	8.1	0.5	No	No	No
2/16/2016	11:07:00	Reference	D-BG-160216	32.69197	-117.15103	8.2	8.1	3.9	No	No	No
2/16/2016	11:15:00	Early Warning	D-EWN-160216	32.69246	-117.14633	8.1	8.1	0.4	No	No	No
2/16/2016	11:19:00	Early Warning	D-EWS-160216	32.69228	-117.14602	8.1	8.1	0.5	No	No	No
2/16/2016	11:23:00	Compliance	D-CNS-160216	32.69219	-117.14505	8.1	8.1	0.1	No	No	No
2/16/2016	11:27:00	Compliance	D-COS-160216	32.69107	-117.14525	8.1	8.1	0.2	No	No	No
2/16/2016	11:30:00	Compliance	D-CON-160216	32.69192	-117.14646	8.2	8.1	0.7	No	No	No
2/16/2016	11:34:00	Compliance	D-CNN-160216	32.69239	-117.14680	8.2	8.1	1.2	No	No	No
2/23/2016	15:02:56	Reference	D-BG-160223	32.69197	-117.15103	7.3	8.0	0.6	No	No	No
2/23/2016	15:09:21	Early Warning	D-EWN-160223	32.692241	117.146788	7.2	8.0	0.4	No	No	No
2/23/2016	15:11:41	Early Warning	D-EWS-160223	32.691572	117.145534	7.2	7.9	0.4	No	No	No
2/23/2016	15:15:20	Compliance	D-CNS-160223	32.690954	117.144819	7.2	8.0	0.3	No	No	No
2/23/2016	15:18:42	Compliance	D-COS-160223	32.691039	117.146152	7.2	8.0	0.5	No	No	No
2/23/2016	15:21:06	Compliance	D-CON-160223	32.691657	117.14725	7.1	7.9	0.4	No	No	No
2/23/2016	15:23:05	Compliance	D-CNN-160223	32.693118	117.147702	7.2	8.0	0.6	No	No	No

**Table F-18**  
**Water Quality Monitoring Results During Shoreline Debris Removal - February 2016**

Notes:

Receiving water limitation compliance criteria: DO shall not be depressed more than 10 percent from the reference (BG); pH shall not be changed more than 0.2 unit from reference (BG); pH shall not be depressed below 7.0 nor raised above 9.0; turbidity must not exceed 20 percent of reference (BG; if natural turbidity from 0 to 50 NTU).

1 Latitude and longitude coordinates in decimal degrees, North American Datum 1983 (NAD83)

2 Compliance station results for turbidity exceeded 20 percent of the reference (BG). Based on visual observations, the potential exceedance was not attributed to construction-related activities and is likely a result of natural variability.

DO = dissolved oxygen

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units