

# West Basin Municipal Water District Desalination Demonstration Facility Intake Effects Assessment

Quarterly Progress Report  
Second Quarter 2011

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## Introduction

This report presents a summary of sampling data and key project activities that were completed through the second quarter of 2011. Sampling for the baseline characterization of target species and the intake performance evaluation was initiated on March 31, 2011, during the last week of the first quarter of 2011. Five sampling events were conducted during the second quarter of 2011 including two full baseline characterization and intake performance evaluation surveys, and three supplemental collections at the offshore intake location. Data collected during these sampling events are provided in this report for informational purposes only and should not be used at this time for analysis, extrapolation, or drawing conclusions about entrainment impacts from the West Basin Ocean Water Desalination Demonstration Facility (OWDDF), or the efficiency of different intake designs at reducing entrainment. A summary of project activities and sampling results follows.

## Field Collection and Laboratory Processing

Field sampling for the OWDDF Intake Effects Assessment (IEA) is being conducted twice per month over a 12-month period. The first sampling event of each month is scheduled during the first week of the month and the second sampling event is scheduled during the third week of the month, ocean conditions allowing. The first sampling event of the month includes collection of samples for:

- Baseline characterization of target organism populations in the source water, and



- Assessment of the efficiency of alternate intakes in reducing entrainment.

During the second sampling effort each month samples are collected at just the intake location (SWE). Samples are collected from a research vessel positioned above the unscreened intake by pumping water from a depth of 7.6 m (25 ft) through a 335- $\mu$ m (0.13 in.) mesh plankton net. Offshore pump samples are collected throughout the year during both day and night to provide data on seasonal and diel variation in species composition. A detailed discussion of field sample collection and sample processing in the laboratory is included in the Intake Effects Assessment Study Plan.

Upon completion of a sampling event, samples are returned to the laboratory, and after at least 72 hours, transferred from the formalin-seawater solution into 70% ethanol. Processing begins with an examination of the collected material under a dissecting microscope, and removal and counting of all fish eggs, larval fishes, and target invertebrates (megalopal stages of cancrid crabs, spiny lobster phyllosome larvae, and squid paralarvae). These organisms are then placed in labeled vials and identified to the lowest taxonomic level practicable. The developmental stage of fish larvae (yolk-sac, preflexion, flexion, postflexion, or transformation) is also recorded on the data sheet. Larval fish lengths are determined and recorded for up to 50 fish larvae from each taxon using a video capture system and image analysis software. A detailed QA/QC program is applied to all laboratory processing to ensure data accuracy.

## Data Summary

A total of 75 samples have been collected during the first six sampling events for the first and second quarters of 2011 (**Table 1**). These included 26 intake/source water samples collected with the towed bongo frame and 335  $\mu$ m mesh plankton nets, 11 pump samples from the 1.0 mm wedgewire screen (WWS) intake, 11 pump samples from the 2.0 mm WWS intake, 21 pump samples from the unscreened intake, and six samples from the SIBI feed water. Laboratory processing for all organism types has been completed for the first and second quarter samples. A total (split adjusted count) of 410 larval fishes, 31 larval fish fragments, 48,946 fish eggs, and 659 target invertebrate species larvae were collected during the first and second quarter sampling efforts (Surveys 001-006). The species composition and counts of larval organisms collected during Quarter 1 and Quarter 2 are presented in **Tables 2 through 7**. Larval fish measurement data are presented in **Table 8**. Data are presented by collection location (station) and survey number.

The data presented in this report from the first six surveys should not be used at this time to draw conclusions regarding the potential effects of entrainment by the OWDDF intake, or the performance of the 1.0 mm and 2.0 mm WWS intake modules relative to an unscreened intake. Ichthyoplankton data collected from these studies, and generally all biological data, are highly variable over multiple time and spatial scales. Variation over short time periods occurs due to variation in spawning within and among fish populations, and short term fluctuations in environmental conditions such as changes in upwelling strength due to wind and current

conditions. Longer period fluctuations in larval abundance and species composition occur due to seasonal changes in ocean environment usually related to water temperature and changes in seasonal currents. Spatial variation in abundance is also affected by numerous factors including habitat type, and current speed and direction, which are also affected by wind, waves, and other factors. As a result of the variation expected in the data it is important that all of the data from the study be collected prior to making inferences or drawing any conclusions.

### SIBI Study

The SIBI study was designed to assess the effectiveness and impacts of subsurface alternative intake technologies. However, no fish eggs or larvae were collected in the samples during this reporting period. Evaluation of the unit design and sampling protocols suggest that the scale, setup of the pilot unit, and small flow rates prevent marine taxa from being drawn into the unit as part of the feed water source from the unscreened intake. This study will continue to draw the regularly scheduled impingement and entrainment samples per the required study plan protocols, however, specific controlled studies are being considered that would more effectively study the effects of the SIBI I&E characteristics.

**Table 1.** Dates of surveys and progress of sample processing for the West Basin Intake Assessment Study.

Survey No.	Start Date	Number of Samples Collected by Study			Sample Processing Status (% Complete)			
		Nets – Source Water and Intake	Pumps – Onshore and Intake	SIBI Filter Bed	Sorting	Taxonomic Identification	Lab QC	Data Entry
<i>First Quarter</i>								
001	03/31/11	10	9	2	100	100	100	100
<i>Second Quarter</i>								
002	04/14/11	–	2	–	100	100	100	100
003	05/05/11	10	12	2	100	100	100	100
004	05/25/11	–	4	–	100	100	100	100
005	06/09/11	6	12	2	100	100	100	100
006	06/21/11	–	4	–	100	100	100	100

**Table 2.** Baseline Characterization Study counts for larval fishes, fish eggs, and target invertebrate larvae collected at the SWE station during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN001      Survey Date: March 31, 2011

**Station SWE – Net Samples from Intake Location Offshore**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Gibbonsia</i> spp.	kelpfishes	12
<i>Atherinopsis californiensis</i>	jacksnelt	4
<i>Citharichthys stigmaeus</i>	speckled sanddab	4
<i>Genyonemus lineatus</i>	white croaker	3
<i>Engraulis mordax</i>	northern anchovy	2
Pleuronectoidei	flatfishes	1
		<b>Total Entrainable Larval Fishes: 26</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	6,270
Paralichthyidae (eggs)	sand flounder eggs	1,370
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	260
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	150
fish eggs (damaged)	damaged fish eggs unid.	40
Sciaenidae (eggs)	croaker eggs	20
		<b>Total Fish Eggs: 8,110</b>
<b>Larval Fish Fragments</b>		
larval fish fragment	larval fish fragments	2
		<b>Total Larval Fish Fragments: 2</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (meg.)	cancer crabs	261
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	14
Cancridae (megalops)	cancer crabs megalops	8
<i>Cancer productus/Romaleon</i> spp. (megalops)	rock crab megalops	2
		<b>Total Target Invertebrates: 285</b>
		<b>Total All Taxa: 8,423</b>

**Table 2** (continued). Baseline Characterization Study counts for larval fishes, fish eggs, and target invertebrate larvae collected at the SWE station during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN003      Survey Date: May 6, 2011

**Station SWE – Net Samples from Intake Location Offshore**

<b>Taxon</b>	<b>Common Name</b>	<b>Split Adjusted Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Parophrys vetulus</i>	English sole	16
<i>Zaniolepis frenata</i>	shortspine combfish	12
<i>Chitonotus/Icelinus</i> spp.	sculpins	4
Cottidae	sculpins	4
Pleuronectidae	righteye flounders	4
<i>Sebastes</i> spp. V	rockfishes	4
<i>Stenobranchius leucopsarus</i>	northern lampfish	4
		<b>Total Entrainable Larval Fishes: 48</b>
<b>Non-Entrainable Larval Fishes</b>		
<i>Sebastes miniatus</i>	vermilion rockfish	4
		<b>Non-Entrainable Larval Fishes: 4</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	6,948
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	364
fish eggs (damaged)	damaged fish eggs unid.	248
Pleuronectidae (eggs)	righteye flounder eggs	80
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	40
<i>Engraulis mordax</i> (eggs)	northern anchovy eggs	40
fish eggs	fish eggs	4
Paralichthyidae (eggs)	sand flounder eggs	4
		<b>Total Fish Eggs: 7,728</b>
<b>Larval Fish Fragments</b>		
larval fish fragment	larval fish fragments	8
		<b>Total Larval Fish Fragments: 8</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (meg.)	cancer crabs	52
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	16
		<b>Total Target Invertebrates: 68</b>
		<b>Total All Taxa: 7,868</b>

**Table 2** (continued). Baseline Characterization Study counts for larval fishes, fish eggs, and target invertebrate larvae collected at the SWE station during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN005      Survey Date: June 9, 2011

**Station SWE – Net Samples from Intake Location Offshore**

<b>Taxon</b>	<b>Common Name</b>	<b>Split Adjusted Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Hypsypops rubicundus</i>	garibaldi	22
larvae, yolksac	yolksac larvae	16
<i>Gibbonsia</i> spp.	kelpfishes	4
<i>Hypsoblennius</i> spp.	combtooth blennies	2
		<b>Total Entrainable Larval Fishes: 44</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	5,200
Sciaenidae (eggs)	croaker eggs	380
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	240
Labridae (eggs)	wrasse eggs	180
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	80
Engraulidae (eggs)	anchovy eggs	40
fish eggs	fish eggs	40
Paralichthyidae (eggs)	sand flounder eggs	40
		<b>Total Fish Eggs: 6,200</b>
<b>Larval Fish Fragments</b>		
larval fish fragment	larval fish fragments	6
		<b>Total Larval Fish Fragments: 6</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (meg.)	cancer crabs	2
		<b>Total Target Invertebrates: 2</b>
		<b>Total All Taxa: 6,252</b>

**Table 3.** Baseline Characterization Study counts for larval fishes, fish eggs, and target invertebrate larvae collected at the source water stations (SW1, SW2, SW3) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN001      Survey Date: March 31, 2011

**Stations SW1, SW2, SW3 – Net Samples from Source Water Stations Offshore**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Citharichthys stigmatheus</i>	speckled sanddab	15
<i>Engraulis mordax</i>	northern anchovy	8
<i>Leuresthes tenuis</i>	California grunion	8
<i>Genyonemus lineatus</i>	white croaker	5
<i>Gibbonsia</i> spp.	kelpfishes	4
larvae, yolksac	yolksac larvae	4
<i>Rhinogobiops nicholsi</i>	blackeye goby	4
Cottidae	sculpins	3
<i>Lepidopsetta bilineata</i>	rock sole	2
<i>Scorpaenichthys marmoratus</i>	cabazon	2
<i>Atherinopsis californiensis</i>	jacksmelt	1
<i>Citharichthys sordidus</i>	Pacific sanddab	1
Engraulidae	anchovies	1
Sciaenidae	croakers	1
		<b>Total Entrainable Larval Fishes: 59</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	4,490
Paralichthyidae (eggs)	sand flounder eggs	1,360
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	80
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	60
fish eggs (damaged)	damaged fish eggs unid.	20
Engraulidae (eggs)	anchovy eggs	10
Sciaenidae (eggs)	croaker eggs	10
		<b>Total Fish Eggs: 6,030</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (meg.)	cancer crabs	138
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	23
Cancriidae (megalops)	cancer crabs megalops	2
<i>Doryteuthis opalescens</i>	market squid	2
		<b>Total Target Invertebrates: 165</b>
		<b>Total All Taxa: 6,254</b>

**Table 3** (continued). Baseline Characterization Study counts for larval fishes, fish eggs, and target invertebrate larvae collected at the source water stations (SW1, SW2, SW3) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN003      Survey Date: May 6, 2011

**Stations SW1, SW2, SW3 – Net Samples from Source Water Stations Offshore**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Parophrys vetulus</i>	English sole	32
<i>Gobiesox</i> spp.	clingfishes	12
larvae, yolksac	yolksac larvae	12
<i>Engraulis mordax</i>	northern anchovy	8
<i>Hypsoblennius</i> spp.	combtooth blennies	8
<i>Pleuronichthys</i> spp.	turbots	8
<i>Zaniolepis frenata</i>	shortspine combfish	8
<i>Artedius</i> spp.	sculpins	4
<i>Chromis punctipinnis</i>	blacksmith	4
Cottidae	sculpins	4
<i>Gibbonsia</i> spp.	kelpfishes	4
<i>Liparis</i> spp.	snailfishes	4
Myctophidae	lanternfishes	4
Pleuronectidae	righteye flounders	4
<i>Pleuronichthys verticalis</i>	hornyhead turbot	4
<i>Stenobranchius leucopsarus</i>	northern lampfish	4
		<b>Total Entrainable Larval Fishes: 124</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	7,288
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	364
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	288
fish eggs	fish eggs	248
Paralichthyidae (eggs)	sand flounder eggs	128
<i>Engraulis mordax</i> (eggs)	northern anchovy eggs	80
Pleuronectidae (eggs)	righteye flounder eggs	56
Labridae (eggs)	wrasse eggs	48
Labridae/Paralichthyidae (eggs)	fish eggs	40
		<b>Total Fish Eggs: 8,540</b>
<b>Larval Fish Fragments</b>		
larval fish fragment	larval fish fragments	8
		<b>Total Larval Fish Fragments: 8</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (meg.)	cancer crabs	52
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	8
		<b>Total Target Invertebrates: 60</b>
		<b>Total All Taxa: 8,732</b>

**Table 3** (continued). Baseline Characterization Study counts for larval fishes, fish eggs, and target invertebrate larvae collected at the source water stations (SW1, SW2, SW3) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN005      Survey Date:    June 9, 2011

**Stations SW1, SW2, SW3 – Net Samples from Source Water Stations Offshore**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
larvae, yolksac	yolksac larvae	8
	<b>Total Entrainable Larval Fishes:</b>	<b>8</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	2,360
Sciaenidae (eggs)	croaker eggs	120
Labridae/Paralichthyidae (eggs)	fish eggs	60
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	60
<i>Engraulis mordax</i> (eggs)	northern anchovy eggs	40
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	20
fish eggs	fish eggs	20
Labridae (eggs)	wrasse eggs	20
Paralichthyidae (eggs)	sand flounder eggs	20
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	4
	<b>Total Fish Eggs:</b>	<b>2,724</b>
<b>Target Invertebrates</b>		
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	4
	<b>Total Target Invertebrates:</b>	<b>4</b>
	<b>Total All Taxa:</b>	<b>2,736</b>

**Table 4.** Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the 1.0 mm WWS intake (onshore) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP001      Survey Date: March 31, 2011

**1.0 mm WWS Intake – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Artedius lateralis</i>	smoothhead sculpin	1
Cottidae	sculpins	1
<i>Genyonemus lineatus</i>	white croaker	1
larval fish - damaged	damaged larval fishes	1
<i>Ruscarius meanyi</i>	Puget Sound sculpin	1
<i>Stenobranchius leucopsarus</i>	northern lampfish	1
		<b>Total Entrainable Larval Fishes: 6</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	916
Paralichthyidae (eggs)	sand flounder eggs	47
Labridae/Paralichthyidae (eggs)	fish eggs	20
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	20
fish eggs	fish eggs	10
Engraulidae (eggs)	anchovy eggs	1
		<b>Total Fish Eggs: 1,014</b>
<b>Target Invertebrates</b>		
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	15
<i>Romaleon anten./Metacarcinus grac.</i> (megalops)	cancer crabs	2
Cancridae (megalops)	cancer crabs megalops	1
		<b>Total Target Invertebrates: 18</b>
		<b>Total All Taxa: 1,038</b>

**Table 4** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the 1.0 mm WWS intake (onshore) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: **WBP003**      Survey Date: **May 5, 2011**

**1.0 mm WWS Intake – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
Cottidae	sculpins	4
	<b>Total Entrainable Larval Fishes:</b>	<b>4</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	465
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	86
fish eggs	fish eggs	53
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	20
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	11
Labridae (eggs)	wrasse eggs	10
	<b>Total Fish Eggs:</b>	<b>645</b>
<b>Larval Fish Fragments</b>		
larval fish fragment	larval fish fragments	3
	<b>Total Larval Fish Fragments:</b>	<b>3</b>
<b>Target Invertebrates</b>		
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	2
<i>Romaleon anten./Metacarcinus grac.</i> (meg.)	cancer crabs	2
Cancridae (megalops)	cancer crabs megalops	1
	<b>Total Target Invertebrates:</b>	<b>5</b>
	<b>Total All Taxa:</b>	<b>657</b>

**Table 4** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the 1.0 mm WWS intake (onshore) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP005      Survey Date: June 9, 2011

**1.0 mm WWS Intake – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>	
<b>Entrainable Larval Fishes</b>			
<i>Hypsoblennius</i> spp.	combtooth blennies	5	30.50
<i>Oxylebius pictus/Zaniolepis frenata</i>	painted greenling / shortspine combfish	4	23.75
larval fish - damaged	damaged larval fishes	3	18.24
Cottidae	sculpins	1	6.13
		<b>Total Entrainable Larval Fishes: 13</b>	
<b>Fish Eggs</b>			
fish eggs (early development stage)	fish eggs	1,344	8,247.06
fish eggs	fish eggs	80	491.19
Labridae (eggs)	wrasse eggs	40	245.19
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	27	165.74
Engraulidae (eggs)	anchovy eggs	10	61.30
Sciaenidae (eggs)	croaker eggs	10	61.30
		<b>Total Fish Eggs: 1,511</b>	
<b>Target Invertebrates</b>			
No Target Invertebrates			
		<b>Total Target Invertebrates: 0</b>	
		<b>Total All Taxa: 1,524</b>	

**Table 5.** Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the 2.0 mm WWS intake (onshore) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: **WBP001**      Survey Date: March 31, 2011

**2.0 mm WWS Intake – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Typhlogobius californiensis</i>	blind goby	8
<i>Ruscarius creaseri</i>	roughcheek sculpin	4
larval fish - damaged	damaged larval fishes	3
<i>Gibbonsia</i> spp.	kelpfishes	1
<i>Stenobranchius leucopsarus</i>	northern lampfish	1
		<b>Total Entrainable Larval Fishes: 17</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	975
Paralichthyidae (eggs)	sand flounder eggs	40
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	40
Labridae/Paralichthyidae (eggs)	fish eggs	4
		<b>Total Fish Eggs: 1,059</b>
<b>Larval Fish Fragments</b>		
larval fish fragment	larval fish fragments	2
		<b>Total Larval Fish Fragments: 2</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (megalops)	cancer crabs	14
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	9
Cancridae (megalops)	cancer crabs megalops	6
		<b>Total Target Invertebrates: 28</b>
		<b>Total All Taxa: 1,106</b>

**Table 5** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the 2.0 mm WWS intake (onshore) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP003      Survey Date: May 5, 2011

**2.0 mm WWS Intake – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
larval fish - damaged	damaged larval fishes	2
<i>Pleuronichthys</i> spp.	turbots	1
Sciaenidae	croakers	1
	<b>Total Entrainable Larval Fishes:</b>	<b>4</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	124
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	24
fish eggs	fish eggs	11
Engraulidae (eggs)	anchovy eggs	2
	<b>Total Fish Eggs:</b>	<b>161</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (meg.)	cancer crabs	1
	<b>Total Target Invertebrates:</b>	<b>1</b>
	<b>Total All Taxa:</b>	<b>166</b>

**Table 5** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the 2.0 mm WWS intake (onshore) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: **WBP005**      Survey Date: **June 9, 2011**

**2.0 mm WWS Intake – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Hypsoblennius</i> spp.	combtooth blennies	11
<i>Ruscarius creaseri</i>	roughcheek sculpin	4
larval fish - damaged	damaged larval fishes	2
<i>Gibbonsia</i> spp.	kelpfishes	1
<i>Gobiesox</i> spp.	clingfishes	1
		<b>Total Entrainable Larval Fishes: 19</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	963
Labridae (eggs)	wrasse eggs	30
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	14
Engraulidae (eggs)	anchovy eggs	10
Sciaenidae (eggs)	croaker eggs	10
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	10
<i>Vinciguerria lucetia</i> (eggs)	Panama lightfish eggs	10
		<b>Total Fish Eggs: 1,047</b>
<b>Larval Fish Fragments</b>		
larval fish fragment	larval fish fragments	1
		<b>Total Larval Fish Fragments: 1</b>
<b>Target Invertebrates</b>		
No Target Invertebrates		
		<b>Total Target Invertebrates: 0</b>
		<b>Total All Taxa: 1,067</b>

**Table 6.** Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the unscreened intake (offshore from boat) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

**Survey:** WBP001      **Survey Date:** March 31, 2011

**Unscreened Intake – Pump Samples from Boat at Intake Location**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Genyonemus lineatus</i>	white croaker	2
		<b>Total Entrainable Larval Fishes: 2</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	1,144
Paralichthyidae (eggs)	sand flounder eggs	70
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	50
Labridae/Paralichthyidae (eggs)	fish eggs	1
		<b>Total Fish Eggs: 1,265</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (megalops)	cancer crabs	11
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	2
		<b>Total Target Invertebrates: 13</b>
		<b>Total All Taxa: 1,280</b>

**Table 6** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the unscreened intake (offshore from boat) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

**Survey:** WBP002      **Survey Date:** April 14, 2011

**Unscreened Intake – Pump Samples from Boat at Intake Location**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
No Fish		
		<b>Total Entrainable Larval Fishes: 0</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	261
fish eggs	fish eggs	60
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	1
		<b>Total Fish Eggs: 322</b>
<b>Target Invertebrates</b>		
No Target Invertebrates		
		<b>Total Target Invertebrates: 0</b>
		<b>Total All Taxa: 322</b>

**Table 6** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the unscreened intake (offshore from boat) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP003      Survey Date: May 5, 2011

**Unscreened Intake – Pump Samples from Boat at Intake Location**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Chromis punctipinnis</i>	blacksmith	1
larval fish - damaged	damaged larval fishes	1
		<b>Total Entrainable Larval Fishes: 2</b>
<b>Fish Eggs</b>		
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	300
fish eggs (early development stage)	fish eggs	298
fish eggs	fish eggs	27
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	10
Engraulidae (eggs)	anchovy eggs	1
Labridae (eggs)	wrasse eggs	1
Paralichthyidae (eggs)	sand flounder eggs	1
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	1
		<b>Total Fish Eggs: 639</b>
<b>Target Invertebrates</b>		
Canceridae (megalops)	cancer crabs megalops	1
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	1
		<b>Total Target Invertebrates: 2</b>
		<b>Total All Taxa: 643</b>

**Table 6** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the unscreened intake (offshore from boat) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP004      Survey Date: May 25, 2011

<b><u>Unscreened Intake – Pump Samples from Boat at Intake Location</u></b>		<b>Split Adjusted Larval Count</b>
<b>Taxon</b>	<b>Common Name</b>	
<b>Entrainable Larval Fishes</b>		
Atherinopsidae	silversides	1
larvae, yolk sac	yolk sac larvae	1
<b>Total Entrainable Larval Fishes:</b>		<b>2</b>
<b>Non-Entrainable Larval Fishes</b>		
<i>Scorpaenichthys marmoratus</i>	cabezon	1
<b>Total Non-Entrainable Larval Fishes:</b>		<b>1</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	225
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	33
Engraulidae (eggs)	anchovy eggs	5
fish eggs	fish eggs	5
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	1
<b>Total Fish Eggs:</b>		<b>269</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (meg.)	cancer crabs	3
Cancridae (megalops)	cancer crabs megalops	2
<i>Cancer productus/Romaleon</i> spp. (megalops)	rock crab megalops	1
<b>Total Target Invertebrates:</b>		<b>6</b>
<b>Total All Taxa:</b>		<b>278</b>

**Table 6** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the unscreened intake (offshore from boat) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP005      Survey Date: June 9, 2011

**Unscreened Intake – Pump Samples from Boat at Intake Location**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
larval fish - damaged	damaged larval fishes	3
<i>Hypsoblennius</i> spp.	combtooth blennies	2
Cottidae	sculpins	1
		<b>Total Entrainable Larval Fishes: 6</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	1,406
fish eggs	fish eggs	70
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	26
Labridae (eggs)	wrasse eggs	20
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	10
Sciaenidae (eggs)	croaker eggs	10
		<b>Total Fish Eggs: 1,542</b>
<b>Target Invertebrates</b>		
<i>Romaleon anten./Metacarcinus grac.</i> (meg.)	cancer crabs	1
		<b>Total Target Invertebrates: 1</b>
		<b>Total All Taxa: 1,549</b>

**Table 6** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the unscreened intake (offshore from boat) during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: **WBP006**      Survey Date: **June 21, 2011**

**Unscreened Intake – Pump Samples from Boat at Intake Location**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
<i>Hypsoblennius</i> spp.	combtooth blennies	7
larval fish - damaged	damaged larval fishes	3
<i>Hypsypops rubicundus</i>	garibaldi	2
<i>Gibbonsia</i> spp.	kelpfishes	1
Syngnathidae	pipefishes	1
		<b>Total Entrainable Larval Fishes: 14</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	97
fish eggs	fish eggs	11
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	8
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	4
Engraulidae (eggs)	anchovy eggs	1
Labridae (eggs)	wrasse eggs	1
		<b>Total Fish Eggs: 122</b>
<b>Larval Fish Fragments</b>		
larval fish fragment	larval fish fragments	1
		<b>Total Larval Fish Fragments: 1</b>
<b>Target Invertebrates</b>		
<i>Metacarcinus anthonyi</i> (megalops)	yellow crab megalops	1
		<b>Total Target Invertebrates: 1</b>
		<b>Total All Taxa: 138</b>

**Table 7.** Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the SIBI feed water during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: **WBF001**      Survey Date: March 31, 2011

**SIBI Filtrate Flow – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
No fish		0
		<b>Total Entrainable Larval Fishes: 0</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	5
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	1
		<b>Total Fish Eggs: 6</b>
<b>Target Invertebrates</b>		
No invertebrates		0
		<b>Total Target Invertebrates: 0</b>
		<b>SIBI Filtrate Total: 6</b>

**SIBI Sweep Flow – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
No fish		0
		<b>Total Entrainable Larval Fishes: 0</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	4
fish eggs	fish eggs	1
		<b>Total Fish Eggs: 5</b>
<b>Target Invertebrates</b>		
No invertebrates		0
		<b>Total Target Invertebrates: 0</b>
		<b>Total All Taxa: 5</b>

**Table 7** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the SIBI feed water during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: **WBF003**      Survey Date: **May 5, 2011**

**SIBI Filtrate Flow – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
No Fish		
		<b>Total Entrainable Larval Fishes: 0</b>
<b>Fish Eggs</b>		
fish eggs (early development stage)	fish eggs	6
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	1
		<b>Total Fish Eggs: 7</b>
<b>Target Invertebrates</b>		
No Target Invertebrates		
		<b>Total Target Invertebrates: 0</b>
		<b>Total All Taxa: 7</b>

Survey: **WBF003**      Survey Date: **May 5, 2011**

**SIBI Sweep Flow – Onshore Pump Samples**

<b>Taxon</b>	<b>Common Name</b>	<b>Adjusted Larval Count</b>
<b>Entrainable Larval Fishes</b>		
No Fish		
		<b>Total Entrainable Larval Fishes: 0</b>
<b>Fish Eggs</b>		
No Eggs		
		<b>Total Fish Eggs: 0</b>
<b>Target Invertebrates</b>		
No Target Invertebrates		
		<b>Total Target Invertebrates: 0</b>
		<b>Total All Taxa: 0</b>

**Table 7** (continued). Intake Assessment Study counts for larval fishes, fish eggs, and target invertebrate larvae collected from the SIBI feed water during the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: **WBF005**      Survey Date: **June 9, 2011**

**SIBI Filtrate Flow – Onshore Pump Samples**

<b><u>Taxon</u></b>	<b><u>Common Name</u></b>	<b><u>Adjusted Larval Count</u></b>
<b>Entrainable Larval Fishes</b>		
No Fish		
		<b>Total Entrainable Larval Fishes: 0</b>
<b>Fish Eggs</b>		
No Eggs		
		<b>Total Fish Eggs: 0</b>
<b>Target Invertebrates</b>		
No Target Invertebrates		
		<b>Total Target Invertebrates: 0</b>
		<b>Total All Taxa: 0</b>

Survey: **WBF005**      Survey Date: **June 9, 2011**

**SIBI Sweep Flow – Onshore Pump Samples**

<b><u>Taxon</u></b>	<b><u>Common Name</u></b>	<b><u>Adjusted Larval Count</u></b>
<b>Entrainable Larval Fishes</b>		
No Fish		
		<b>Total Entrainable Larval Fishes: 0</b>
<b>Fish Eggs</b>		
No Eggs		
		<b>Total Fish Eggs: 0</b>
<b>Target Invertebrates</b>		
No Target Invertebrates		
		<b>Total Target Invertebrates: 0</b>
		<b>Total All Taxa: 0</b>

**Table 8.** Length measurements of the larval fishes collected during IEA sampling for the First and Second Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

**West Basin Intake and Source Water Stations - Larval Fish Lengths**

**Survey:** WBN001  
**Start Date:** March 31, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
<i>Gibbonsia</i> spp.	kelpfishes	6	4	4.15-4.43	4.24
<i>Citharichthys stigmaeus</i>	speckled sanddab	3	2	0.91-1.09	1.00
<i>Atherinopsis californiensis</i>	jacksmelt	2	2	7.94-8.03	7.99
<i>Genyonemus lineatus</i>	white croaker	2	2	2.60-4.78	3.69
<i>Engraulis mordax</i>	northern anchovy	1	1	2.42	2.42
larval fish fragment	larval fish fragments	1	0	-	-
Pleuronectoidei	flatfishes	1	1	0.78	0.78
<b>Total:</b>		<b>16</b>	<b>12</b>		

**West Basin Intake and Source Water Stations - Larval Fish Lengths**

**Survey:** WBN003  
**Start Date:** May 6, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
<i>Parophrys vetulus</i>	English sole	4	3	2.63-3.54	3.02
larval fish - damaged	damaged larval fishes	3	0	-	-
<i>Zaniolepis frenata</i>	shortspine combfish	3	3	2.82-3.17	2.96
larval fish fragment	larval fish fragments	2	0	-	-
<i>Chitonotus/Icelinus</i> spp.	sculpins	1	1	1.92	1.92
Cottidae	sculpins	1	1	2.42	2.42
Pleuronectidae	righteye flounders	1	1	2.76	2.76
<i>Sebastes miniatus</i>	vermillion rockfish	1	0	-	-
<i>Sebastes</i> spp. V	rockfishes	1	1	2.97	2.97
<i>Stenobranchius leucopsarus</i>	northern lampfish	1	1	3.39	3.39
<b>Total:</b>		<b>18</b>	<b>11</b>		

**West Basin Intake and Source Water Stations - Larval Fish Lengths**

**Survey:** WBN005  
**Start Date:** June 9, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
<i>Hypsypops rubicundus</i>	garibaldi	11	8	2.49-2.69	2.59
larvae, yolksac	yolksac larvae	4	0	-	-
larval fish fragment	larval fish fragments	3	0	-	-
<i>Gibbonsia</i> spp.	kelpfishes	1	0	-	-
<i>Hypsoblennius</i> spp.	combtooth blennies	1	1	2.18	2.18
<b>Total:</b>		<b>20</b>	<b>9</b>		

**Table 8** (continued). Length measurements of the larval fishes collected during IEA sampling for the First and Second Quarters of 2011.

**West Basin Intake Assessment Study - Larval Fish Lengths**

**Survey:** WBP001  
**Start Date:** March 31, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
<i>Typhlogobius californiensis</i>	blind goby	8	6	2.68-3.01	2.84
larval fish - damaged	damaged larval fishes	4	0	-	-
<i>Ruscarius creaseri</i>	roughcheek sculpin	4	4	2.17-2.80	2.57
<i>Genyonemus lineatus</i>	white croaker	3	1	3.98	3.98
larval fish fragment	larval fish fragments	2	0	-	-
<i>Stenobranchius leucopsarus</i>	northern lampfish	2	0	-	-
<i>Artedius lateralis</i>	smoothhead sculpin	1	1	2.29	2.29
Cottidae	sculpins	1	0	-	-
<i>Gibbonsia</i> spp.	kelpfishes	1	1	4.56	4.56
<i>Ruscarius meanyi</i>	Puget Sound sculpin	1	1	2.61	2.61
<b>Total:</b>		<b>27</b>	<b>14</b>		

**West Basin Intake Assessment Study - Larval Fish Lengths**

**Survey:** WBP002  
**Start Date:** April 14, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
No Fish					
<b>Total:</b>		<b>0</b>	<b>0</b>		

**West Basin Intake Assessment Study - Larval Fish Lengths**

**Survey:** WBP003  
**Start Date:** May 5, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
Cottidae	sculpins	4	4	2.34-2.50	2.40
larval fish - damaged	damaged larval fishes	3	0	-	-
larval fish fragment	larval fish fragments	3	0	-	-
<i>Chromis punctipinnis</i>	blacksmith	1	1	2.31	2.31
<i>Pleuronichthys</i> spp.	turbots	1	0	-	-
Sciaenidae	croakers	1	0	-	-
<b>Total:</b>		<b>13</b>	<b>5</b>		

**Table 8** (continued). Length measurements of the larval fishes collected during IEA sampling for the First and Second Quarters of 2011.

**Survey:** WBP004  
**Start Date:** May 25, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
Atherinopsidae	silversides	1	0	-	-
larvae, yolksac	yolksac larvae	1	0	-	-
<i>Scorpaenichthys marmoratus</i>	cabezon	1	0	-	-
<b>Total:</b>		<b>3</b>	<b>0</b>		

**West Basin Intake Assessment Study - Larval Fish Lengths**

**Survey:** WBP005  
**Start Date:** June 9, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
Hypsoblennius spp.	combtooth blennies	18	18	1.88-2.53	2.18
larval fish - damaged	damaged larval fishes	8	0	-	-
<i>Oxy. pictus/Zaniolepis frenata</i>	painted green./shortspine combfish	4	0	-	-
<i>Ruscarius creaseri</i>	roughcheek sculpin	4	4	2.25-2.64	2.44
Cottidae	sculpins	2	0	-	-
<i>Gibbonsia</i> spp.	kelpfishes	1	1	4.42	4.42
<i>Gobiesox</i> spp.	clingfishes	1	1	3.11	3.11
larval fish fragment	larval fish fragments	1	0	-	-
<b>Total:</b>		<b>39</b>	<b>24</b>		

**West Basin Intake Assessment Study - Larval Fish Lengths**

**Survey:** WBP006  
**Start Date:** June 21, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
<i>Hypsoblennius</i> spp.	combtooth blennies	7	7	1.95-2.54	2.32
larval fish - damaged	damaged larval fishes	3	0	-	-
<i>Hypsypops rubicundus</i>	garibaldi	2	0	-	-
<i>Gibbonsia</i> spp.	kelpfishes	1	0	-	-
larval fish fragment	larval fish fragments	1	0	-	-
Syngnathidae	pipefishes	1	1	9.77	9.77
<b>Total:</b>		<b>15</b>	<b>8</b>		

**Table 8** (continued). Length measurements of the larval fishes collected during IEA sampling for the First and Second Quarters of 2011.

**West Basin SIBI Feed Water - Larval Fish Lengths**

**Survey:** WBF001  
**Start Date:** March 31, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
No Fish					
<b>Total:</b>		<b>0</b>	<b>0</b>		

**West Basin SIBI Feed Water - Larval Fish Lengths**

**Survey:** WBF003  
**Start Date:** May 5, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
No Fish					
<b>Total:</b>		<b>0</b>	<b>0</b>		

**West Basin SIBI Feed Water - Larval Fish Lengths**

**Survey:** WBF005  
**Start Date:** June 9, 2011

<b>Taxon</b>	<b>Common Name</b>	<b>Total Count</b>	<b>Measured Count</b>	<b>Length Range (mm)</b>	<b>Average Length (mm)</b>
No Fish					
<b>Total:</b>		<b>0</b>	<b>0</b>		