West Basin Municipal Water District
Desalination Demonstration Facility
Intake Effects Assessment

Quarterly Progress Report
Third Quarter 2011

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Introduction

This report presents a summary of sampling data and key project activities that were completed through the third 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. Six sampling events were conducted during the third quarter of 2011 including three full baseline characterization and intake performance evaluation surveys, and three supplemental collections at the offshore intake location (SWE). 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 typically 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-µm (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 a 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 169 samples have been collected during the 12 sampling events conducted through the third quarter of 2011 (**Table 1**). These included 56 intake/source water samples collected with the towed bongo frame and 335 µm mesh plankton nets, 23 pump samples from the 1.0 mm wedgewire screen (WWS) intake, 23 pump samples from the 2.0 mm WWS intake, 45 pump samples from the unscreened intake, and 22 samples from the SIBI feed water. Laboratory processing for all organism types has been completed for all the samples collected through the third quarter. A total (split adjusted count) of 922 entrainable larval fishes, 54 larval fish fragments, 5 non-entrainable fishes, 63,941 fish eggs, and 762 target invertebrate species larvae were collected over the three quarters of sampling (Surveys 001-012). The species composition and counts of larval organisms collected during Quarter 1, Quarter 2, and Quarter 3 are presented in **Tables 2 through7**. 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 12 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, the samples collected for this reporting period had no significant marine biological data. 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
First Quarter								
001	3/31/2011	10	9	2	100	100	100	100
Second Quarter								
002	4/14/11	–	2	–	100	100	100	100
003	5/5/11	10	12	4	100	100	100	100
004	5/25/11	–	4	–	100	100	100	100
005	6/9/11	6	12	4	100	100	100	100
006	6/21/11	–	4	–	100	100	100	100
Third Quarter								
007	7/21/11	10	12	4	100	100	100	100
008	7/28/11	–	4	–	100	100	100	100
009	8/9/11	10	12	4	100	100	100	100
010	8/22/11	–	4	–	100	100	100	100
011	9/6/11	10	12	4	100	100	100	100
012	9/22/11	–	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, Second, and Third 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

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

Table 2 (continued). Baseline Characterization Study counts for larval fishes, fish eggs, and target invertebrate larvae collected at the SWE station during the First, Second, and Third 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

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Parophrys vetulus	English sole	16
larval fish - damaged	damaged larval fishes	12
Zaniolepis frenata	shortspine combfish	12
Chitonotus/Icelinus spp.	sculpins	4
Cottidae	sculpins	4
Pleuronectidae	righteye flounders	4
Sebastes spp. V	rockfishes	4
Stenobrachius leucopsarus	northern lampfish	4
	Total Entrainable Larval Fishes:	**60**
Non-Entrainable Larval Fishes		
Sebastes miniatus	vermilion rockfish	4
	Non-Entrainable Larval Fishes:	**4**
Fish Eggs		
fish eggs (early development stage)	fish eggs	6,948
Pleuronichthys spp. (eggs)	turbot eggs	364
fish eggs (damaged)	damaged fish eggs unid.	248
Pleuronectidae (eggs)	righteye flounder eggs	80
Citharichthys spp. (eggs)	sanddab eggs	40
Engraulis mordax (eggs)	northern anchovy eggs	40
fish eggs	fish eggs	4
Paralichthyidae (eggs)	sand flounder eggs	4
	Total Fish Eggs:	**7,728**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	8
	Total Larval Fish Fragments:	**8**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	52
Metacarcinus anthonyi (megalops)	yellow crab megalops	16
	Total Target Invertebrates:	**68**
	Total All Taxa:	**7,868**

Table 2 (continued). Baseline Characterization Study counts for larval fishes, fish eggs, and target invertebrate larvae collected at the SWE station during the First, Second, and Third 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

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsypops rubicundus	garibaldi	22
larvae, yolksac	yolksac larvae	16
Gibbonsia spp.	kelpfishes	4
Hypsoblennius spp.	combtooth blennies	2
	Total Entrainable Larval Fishes:	**44**
Fish Eggs		
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
Citharichthys spp. (eggs)	sanddab eggs	80
Engraulidae (eggs)	anchovy eggs	40
fish eggs	fish eggs	40
Paralichthyidae (eggs)	sand flounder eggs	40
	Total Fish Eggs:	**6,200**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	6
	Total Larval Fish Fragments:	**6**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	2
	Total Target Invertebrates:	**2**
	Total All Taxa:	**6,252**

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

Survey: WBN007 Survey Date: July 19, 2011

Station SWE - Net Samples from Intake Location Offshore

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsypops rubicundus	garibaldi	30
Syngnathidae	pipefishes	5
Gobiesox spp.	clingfishes	3
CIQ goby complex	gobies	2
Engraulis mordax	northern anchovy	2
Pleuronichthys spp.	turbots	2
Genyonemus lineatus	white croaker	1
Gibbonsia spp.	kelpfishes	1
Heterostichus rostratus	giant kelpfish	1
larvae, yolksac	yolksac larvae	1
Scorpaena guttata	California scorpionfish	1
Syngnathus spp.	pipefishes	1
	Total Entrainable Larval Fishes:	**50**
Fish Eggs		
fish eggs (early development stage)	fish eggs	668
Labridae (eggs)	wrasses eggs	20
Pleuronichthys spp. (eggs)	turbot eggs	13
Citharichthys spp. (eggs)	sanddab eggs	8
Sciaenidae (eggs)	croaker eggs	2
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	2
Haemulidae (eggs)	grunt eggs	1
	Total Fish Eggs:	**714**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	1
	Total Larval Fish Fragments:	**1**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	4
Metacarcinus anthonyi (megalops)	yellow crab megalops	2
	Total Target Invertebrates:	**6**
	Total All Taxa:	**771**

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

Survey: WBN009 Survey Date: August 9, 2011

Station SWE - Net Samples from Intake Location Offshore

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsoblennius spp.	combtooth blennies	24
larvae, yolksac	yolksac larvae	9
Gibbonsia spp.	kelpfishes	1
Gobiesox spp.	clingfishes	1
Labrisomidae	labrisomid blennies	1
Seriphus politus	queenfish	1
Trachurus symmetricus	jack mackerel	1
	Total Entrainable Larval Fishes:	**38**
Fish Eggs		
fish eggs (early development stage)	fish eggs	530
Citharichthys spp. (eggs)	sanddab eggs	50
Sciaenidae (eggs)	croaker eggs	40
Pleuronichthys spp. (eggs)	turbot eggs	30
Paralichthyidae (eggs)	sand flounder eggs	10
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	10
	Total Fish Eggs:	**670**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	1
	Total Larval Fish Fragments:	**1**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	1
	Total Target Invertebrates:	**1**
	Total All Taxa:	**710**

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

Survey: WBN011 Survey Date: September 6, 2011

Station SWE - Net Samples from Intake Location Offshore

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsoblennius spp.	combtooth blennies	27
larvae, yolksac	yolksac larvae	16
Engraulis mordax	northern anchovy	12
Genyonemus lineatus	white croaker	5
Paralabrax clathratus	kelp bass	5
Gibbonsia spp.	kelpfishes	3
Menticirrhus undulatus	California corbina	3
Syngnathidae	pipefishes	3
Cheilotrema saturnum	black croaker	2
Peprilus simillimus	Pacific butterfish	2
Atractoscion nobilis	white seabass	1
Blennioidei	blennies	1
Hypsypops rubicundus	garibaldi	1
Labrisomidae	labrisomid blennies	1
Opisthonema spp.	thread herrings	1
Pleuronichthys spp.	turbots	1
Sardinops sagax	Pacific sardine	1
Seriphus politus	queenfish	1
	Total Entrainable Larval Fishes:	**86**
Fish Eggs		
fish eggs (early development stage)	fish eggs	1,320
Citharichthys spp. (eggs)	sanddab eggs	170
Paralichthyidae (eggs)	sand flounder eggs	50
Pleuronichthys spp. (eggs)	turbot eggs	30
fish eggs	fish eggs	10
Haemulidae/Paralichthyidae (eggs)	fish eggs	10
Sphyraena argentea (eggs)	Pacific barracuda eggs	10
Trachurus symmetricus (eggs)	jack mackerel eggs	10
	Total Fish Eggs:	**1,610**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	2
	Total Larval Fish Fragments:	**2**
Target Invertebrates		
Panulirus interruptus (phyllosome)	California spiny lobster (larval)	16
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	7
Metacarcinus anthonyi (megalops)	yellow crab megalops	1
	Total Target Invertebrates:	**24**
	Total All Taxa:	**1,722**

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, Second, and Third 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

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

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, Second, and Third 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

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

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, Second, and Third 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

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
larvae, yolksac	yolksac larvae	8
	Total Entrainable Larval Fishes:	**8**
Fish Eggs		
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
Engraulis mordax (eggs)	northern anchovy eggs	40
Citharichthys spp. (eggs)	sanddab eggs	20
fish eggs	fish eggs	20
Labridae (eggs)	wrasse eggs	20
Paralichthyidae (eggs)	sand flounder eggs	20
Pleuronichthys spp. (eggs)	turbot eggs	4
	Total Fish Eggs:	**2,724**
Target Invertebrates		
Metacarcinus anthonyi (megalops)	yellow crab megalops	4
	Total Target Invertebrates:	**4**
	Total All Taxa:	**2,736**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN007 Survey Date: July 19, 2011

Stations SW1, SW2, SW3 - Net Samples from Source Water Stations Offshore

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsypops rubicundus	garibaldi	29
Hypsoblennius spp.	combtooth blennies	14
Gibbonsia spp.	kelpfishes	8
Pleuronichthys spp.	turbots	7
Labrisomidae	labrisomid blennies	4
CIQ goby complex	gobies	2
Genyonemus lineatus	white croaker	2
larvae, yolksac	yolksac larvae	2
Opisthonema spp.	thread herrings	2
Citharichthys stigmaeus	speckled sanddab	1
Clinidae	kelp blennies	1
Clinocottus analis	woolly sculpin	1
Girella nigricans	opaleye	1
Heterostichus rostratus	giant kelpfish	1
Neoclinus spp.	fringeheads	1
Paralichthys californicus	California halibut	1
Pleuronichthys verticalis	hornyhead turbot	1
Sardinops sagax	Pacific sardine	1
Syngnathidae	pipefishes	1
Xystreurys liolepis	fantail sole	1
Zaniolepis frenata	shortspine combfish	1
	Total Entrainable Larval Fishes:	**82**
Fish Eggs		
fish eggs (early development stage)	fish eggs	915
Pleuronichthys spp. (eggs)	turbot eggs	102
Citharichthys spp. (eggs)	sanddab eggs	61
Sciaenidae (eggs)	croaker eggs	21
Labridae/Paralichthyidae (eggs)	fish eggs	10
	Total Fish Eggs:	**1,109**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	6
	Total Larval Fish Fragments:	**6**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	18
Metacarcinus anthonyi (megalops)	yellow crab megalops	4
Panulirus interruptus (phyllosome)	California spiny lobster (larval)	3
Cancer productus/Romaleon spp. (megalops)	rock crab megalops	1
	Total Target Invertebrates:	**26**
	Total All Taxa:	**1,223**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN009 Survey Date: August 9, 2011

Stations SW1, SW2, SW3 - Net Samples from Source Water Stations Offshore

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsoblennius spp.	combtooth blennies	32
larvae, yolksac	yolksac larvae	23
Hypsypops rubicundus	garibaldi	13
Gibbonsia spp.	kelpfishes	3
CIQ goby complex	gobies	2
Sardinops sagax	Pacific sardine	2
Atractoscion nobilis	white seabass	1
Chromis punctipinnis	blacksmith	1
Clupeiformes	herrings and anchovies	1
Engraulis mordax	northern anchovy	1
Labrisomidae	labrisomid blennies	1
Rhinogobiops nicholsi	blackeye goby	1
Seriphus politus	queenfish	1
Umbrina roncador	yellowfin croaker	1
	Total Entrainable Larval Fishes:	**83**
Fish Eggs		
fish eggs (early development stage)	fish eggs	1,150
Citharichthys spp. (eggs)	sanddab eggs	130
Pleuronichthys spp. (eggs)	turbot eggs	100
Paralichthyidae (eggs)	sand flounder eggs	30
Engraulidae (eggs)	anchovy eggs	10
fish eggs	fish eggs	10
Sciaenidae (eggs)	croaker eggs	10
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	10
	Total Fish Eggs:	**1,450**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	4
Metacarcinus anthonyi (megalops)	yellow crab megalops	2
Panulirus interruptus (phyllosome)	California spiny lobster (larval)	2
	Total Target Invertebrates:	**8**
	Total All Taxa:	**1,541**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN011 Survey Date: September 6, 2011

Stations SW1, SW2, SW3 - Net Samples from Source Water Stations Offshore

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsoblennius spp.	combtooth blennies	41
larvae, yolksac	yolksac larvae	38
Engraulis mordax	northern anchovy	37
Opisthonema spp.	thread herrings	21
Paralabrax clathratus	kelp bass	15
Sciaenidae	croakers	8
CIQ goby complex	gobies	7
Genyonemus lineatus	white croaker	7
Paralichthys californicus	California halibut	7
Gibbonsia spp.	kelpfishes	5
Citharichthys stigmaeus	speckled sanddab	4
Peprilus simillimus	Pacific butterfish	3
Pleuronichthys ritteri	spotted turbot	3
Symphurus atricaudus	California tonguefish	3
Syngnathidae	pipefishes	3
Triphoturus mexicanus	Mexican lampfish	3
Blennioidei	blennies	2
larval fish - damaged	damaged larval fishes	2
Cheilotrema saturnum	black croaker	1
Chilara taylori	spotted cusk-eel	1
Menticirrhus undulatus	California corbina	1
Paralabrax maculatofasciatus	spotted sand bass	1
Pleuronichthys guttulatus	diamond turbot	1
Pleuronichthys verticalis	hornyhead turbot	1
Sardinops sagax	Pacific sardine	1
Scomber japonicus	Pacific mackerel	1
Umbrina roncador	yellowfin croaker	1
	Total Entrainable Larval Fishes:	**218**
Fish Eggs		
fish eggs (early development stage)	fish eggs	1,614
Citharichthys spp. (eggs)	sanddab eggs	393
Pleuronichthys spp. (eggs)	turbot eggs	111
Paralichthyidae (eggs)	sand flounder eggs	102
fish eggs	fish eggs	41
Sciaenidae (eggs)	croaker eggs	31
Labridae (eggs)	wrasse eggs	11
Labridae/Paralichthyidae (eggs)	fish eggs	10
Paralabrax spp. (eggs)	sand bass eggs	10
Sciaenidae/Paralichthyidae (eggs)	fish eggs	10
	Total Fish Eggs:	**2,333**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBN011 Survey Date: September 6, 2011

Stations SW1, SW2, SW3 - Net Samples from Source Water Stations Offshore

Larval Fish Fragments		
larval fish fragment	larval fish fragments	4
	Total Larval Fish Fragments:	**4**
Target Invertebrates		
Panulirus interruptus (phyllosome)	California spiny lobster (larval)	18
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	6
Metacarcinus anthonyi (megalops)	yellow crab megalops	1
	Total Target Invertebrates:	**25**
	Total All Taxa:	**2,580**

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, Second, and Third 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

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

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, Second, and Third 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

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

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, Second, and Third 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

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

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP007 Survey Date: July 19, 2011

1.0 mm WWS Intake - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
fish eggs (early development stage)	fish eggs	130
Pleuronichthys spp. (eggs)	turbot eggs	37
fish eggs	fish eggs	9
Citharichthys spp. (eggs)	sanddab eggs	5
Paralichthyidae (eggs)	sand flounder eggs	2
Labridae (eggs)	wrasse eggs	1
Sciaenidae (eggs)	croaker eggs	1
	Total Fish Eggs:	**185**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	1
	Total Larval Fish Fragments:	**1**
Target Invertebrates		
Panulirus interruptus (phyllosome)	California spiny lobster (larval)	1
	Total Target Invertebrates:	**1**
	Total All Taxa:	**187**

Survey: WBP009 Survey Date: August 9, 2011

1.0 mm WWS Intake - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsoblennius spp.	combtooth blennies	3
	Total Entrainable Larval Fishes:	**3**
Fish Eggs		
fish eggs (early development stage)	fish eggs	199
Pleuronichthys spp. (eggs)	turbot eggs	13
Citharichthys spp. (eggs)	sanddab eggs	6
fish eggs	fish eggs	4
Labridae (eggs)	wrasse eggs	2
Sciaenidae (eggs)	croaker eggs	2
	Total Fish Eggs:	**226**
Target Invertebrates		
Metacarcinus anthonyi (megalops)	yellow crab megalops	1
	Total Target Invertebrates:	**1**
	Total All Taxa:	**230**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP011 Survey Date: September 6, 2011

1.0 mm WWS Intake - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
larval fish - damaged	damaged larval fishes	2
CIQ goby complex	gobies	1
Hypsoblennius spp.	combtooth blennies	1
larvae, yolksac	yolksac larvae	1
Paralichthys californicus	California halibut	1
	Total Entrainable Larval Fishes:	**6**
Fish Eggs		
fish eggs (early development stage)	fish eggs	57
Pleuronichthys spp. (eggs)	turbot eggs	18
fish eggs	fish eggs	7
Citharichthys spp. (eggs)	sanddab eggs	1
	Total Fish Eggs:	**83**
Target Invertebrates		
Panulirus interruptus (phyllosome)	California spiny lobster (larval)	2
	Total Target Invertebrates:	**2**
	Total All Taxa:	**91**

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, Second, and Third 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

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Typhlogobius californiensis	blind goby	8
Ruscarius creaseri	roughcheek sculpin	4
larval fish - damaged	damaged larval fishes	3
Gibbonsia spp.	kelpfishes	1
Stenobrachius leucopsarus	northern lampfish	1
	Total Entrainable Larval Fishes:	**17**
Fish Eggs		
fish eggs (early development stage)	fish eggs	975
Paralichthyidae (eggs)	sand flounder eggs	40
Pleuronichthys spp. (eggs)	turbot eggs	40
Labridae/Paralichthyidae (eggs)	fish eggs	4
	Total Fish Eggs:	**1,059**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	2
	Total Larval Fish Fragments:	**2**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	14
Metacarcinus anthonyi (megalops)	yellow crab megalops	9
Cancridae (megalops)	cancer crabs megalops	6
	Total Target Invertebrates:	**29**
	Total All Taxa:	**1,107**

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, Second, and Third 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

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

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, Second, and Third 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

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

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP007 Survey Date: July 19, 2011

2.0 mm WWS Intake - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Gobiesox spp.	clingfishes	2
Gibbonsia spp.	kelpfishes	1
Hypsoblennius spp.	combtooth blennies	1
larval fish - damaged	damaged larval fishes	1
	Total Entrainable Larval Fishes:	**5**
Fish Eggs		
fish eggs (early development stage)	fish eggs	109
Pleuronichthys spp. (eggs)	turbot eggs	29
fish eggs	fish eggs	12
Citharichthys spp. (eggs)	sanddab eggs	11
Sciaenidae (eggs)	croaker eggs	3
	Total Fish Eggs:	**164**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	Total All Taxa:	**169**

Survey: WBP009 Survey Date: August 9, 2011

2.0 mm WWS Intake - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsoblennius spp.	combtooth blennies	4
Gibbonsia spp.	kelpfishes	1
	Total Entrainable Larval Fishes:	**5**
Fish Eggs		
fish eggs (early development stage)	fish eggs	783
Pleuronichthys spp. (eggs)	turbot eggs	32
Citharichthys spp. (eggs)	sanddab eggs	19
fish eggs	fish eggs	1
Sciaenidae (eggs)	croaker eggs	1
	Total Fish Eggs:	**836**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	Total All Taxa:	**841**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP011 Survey Date: September 6, 2011

2.0 mm WWS Intake - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
CIQ goby complex	gobies	2
Hypsoblennius spp.	combtooth blennies	2
Citharichthys stigmaeus	speckled sanddab	1
Engraulis mordax	northern anchovy	1
Syngnathidae	pipefishes	1
	Total Entrainable Larval Fishes:	**7**
Fish Eggs		
fish eggs (early development stage)	fish eggs	97
Pleuronichthys spp. (eggs)	turbot eggs	35
fish eggs	fish eggs	14
Sciaenidae (eggs)	croaker eggs	2
Citharichthys spp. (eggs)	sanddab eggs	1
Labridae (eggs)	wrasse eggs	1
Paralabrax spp. (eggs)	sand bass eggs	1
Scomber japonicus (eggs)	Pacific mackerel eggs	1
	Total Fish Eggs:	**152**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	2
	Total Larval Fish Fragments:	**2**
Target Invertebrates		
Panulirus interruptus (phyllosome)	California spiny lobster (larval)	3
	Total Target Invertebrates:	**3**
	Total All Taxa:	**164**

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, Second, and Third 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

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

Survey: WBP002 Survey Date: April 14, 2011

Unscreened Intake - Pump Samples from Boat at Intake Location

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

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, Second, and Third 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

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Chromis punctipinnis	blacksmith	1
larval fish - damaged	damaged larval fishes	1
	Total Entrainable Larval Fishes:	**2**
Fish Eggs		
Pleuronichthys spp. (eggs)	turbot eggs	300
fish eggs (early development stage)	fish eggs	298
fish eggs	fish eggs	27
Citharichthys 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
	Total Fish Eggs:	**639**
Target Invertebrates		
Cancridae (megalops)	cancer crabs megalops	1
Metacarcinus anthonyi (megalops)	yellow crab megalops	1
	Total Target Invertebrates:	**2**
	Total All Taxa:	**643**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP004 Survey Date: May 25, 2011

Unscreened Intake - Pump Samples from Boat at Intake Location

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Atherinopsidae	silversides	1
larvae, yolksac	yolksac larvae	1
	Total Entrainable Larval Fishes:	**2**
Non-Entrainable Larval Fishes		
Scorpaenichthys marmoratus	cabezon	1
	Total Non-Entrainable Larval Fishes:	**1**
Fish Eggs		
fish eggs (early development stage)	fish eggs	225
Pleuronichthys spp. (eggs)	turbot eggs	33
Engraulidae (eggs)	anchovy eggs	5
fish eggs	fish eggs	5
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	1
	Total Fish Eggs:	**269**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	3
Cancridae (megalops)	cancer crabs megalops	2
Cancer productus/Romaleon spp. (megalops)	rock crab megalops	1
	Total Target Invertebrates:	**6**
	Total All Taxa:	**278**

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, Second, and Third 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

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

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, Second, and Third 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

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Hypsoblennius spp.	combtooth blennies	7
larval fish - damaged	damaged larval fishes	3
Hypsypops rubicundus	garibaldi	2
Gibbonsia spp.	kelpfishes	1
Syngnathidae	pipefishes	1
	Total Entrainable Larval Fishes:	**14**
Fish Eggs		
fish eggs (early development stage)	fish eggs	98
fish eggs	fish eggs	11
Citharichthys spp. (eggs)	sanddab eggs	8
Pleuronichthys spp. (eggs)	turbot eggs	4
Engraulidae (eggs)	anchovy eggs	1
Labridae (eggs)	wrasse eggs	1
	Total Fish Eggs:	**123**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	1
	Total Larval Fish Fragments:	**1**
Target Invertebrates		
Metacarcinus anthonyi (megalops)	yellow crab megalops	1
	Total Target Invertebrates:	**1**
	Total All Taxa:	**139**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP007 Survey Date: July 19, 2011

Unscreened Intake - Pump Samples from Boat at Intake Location

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
larval fish - damaged	damaged larval fishes	2
	Total Entrainable Larval Fishes:	**2**
Fish Eggs		
fish eggs (early development stage)	fish eggs	94
Pleuronichthys spp. (eggs)	turbot eggs	32
fish eggs	fish eggs	18
Citharichthys spp. (eggs)	sanddab eggs	8
	Total Fish Eggs:	**152**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	4
	Total Target Invertebrates:	**4**
	Total All Taxa:	**158**

Survey: WBP008 Survey Date: July 28, 2011

Unscreened Intake - Pump Samples from Boat at Intake Location

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
fish eggs (early development stage)	fish eggs	1,716
fish eggs	fish eggs	44
Citharichthys spp. (eggs)	sanddab eggs	28
Pleuronichthys spp. (eggs)	turbot eggs	13
Paralichthyidae (eggs)	sand flounder eggs	11
Sciaenidae (eggs)	croaker eggs	10
	Total Fish Eggs:	**1,822**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	Total All Taxa:	**1,822**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP009 Survey Date: August 9, 2011

Unscreened Intake - Pump Samples from Boat at Intake Location

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
fish eggs (early development stage)	fish eggs	1,209
Pleuronichthys spp. (eggs)	turbot eggs	10
Citharichthys spp. (eggs)	sanddab eggs	1
	Total Fish Eggs:	**1,220**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	Total All Taxa:	**1,220**

Survey: WBP010 Survey Date: August 22, 2011

Unscreened Intake - Pump Samples from Boat at Intake Location

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
fish eggs (early development stage)	fish eggs	1,300
Citharichthys spp. (eggs)	sanddab eggs	50
Pleuronichthys spp. (eggs)	turbot eggs	31
fish eggs	fish eggs	20
Labridae (eggs)	wrasse eggs	10
Paralichthyidae (eggs)	sand flounder eggs	10
Sciaenidae (eggs)	croaker eggs	10
Sciaenidae/Paralichthyidae/Labridae (eggs)	fish eggs	10
	Total Fish Eggs:	**1,441**
Target Invertebrates		
Metacarcinus anthonyi (megalops)	yellow crab megalops	1
	Total Target Invertebrates:	**1**
	Total All Taxa:	**1,442**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP011 Survey Date: September 6, 2011

Unscreened Intake - Pump Samples from Boat at Intake Location

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
CIQ goby complex	gobies	2
Gibbonsia spp.	kelpfishes	1
Gobiesocidae	clingfishes	1
	Total Entrainable Larval Fishes:	**4**
Fish Eggs		
fish eggs (early development stage)	fish eggs	98
Pleuronichthys spp. (eggs)	turbot eggs	26
Citharichthys spp. (eggs)	sanddab eggs	9
fish eggs	fish eggs	2
Paralichthyidae (eggs)	sand flounder eggs	2
Paralabrax spp. (eggs)	sand bass eggs	1
	Total Fish Eggs:	**138**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	1
	Total Larval Fish Fragments:	**1**
Target Invertebrates		
Romaleon anten./Metacarcinus grac. (meg.)	cancer crabs	1
	Total Target Invertebrates:	**1**
	Total All Taxa:	**144**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBP012 Survey Date: September 22, 2011

Unscreened Intake - Pump Samples from Boat at Intake Location

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Citharichthys stigmaeus	speckled sanddab	4
larval fish - damaged	damaged larval fishes	3
Clupeiformes	herrings and anchovies	1
Hypsoblennius spp.	combtooth blennies	1
	Total Entrainable Larval Fishes:	**9**
Fish Eggs		
fish eggs (early development stage)	fish eggs	642
Pleuronichthys spp. (eggs)	turbot eggs	40
Citharichthys spp. (eggs)	sanddab eggs	1
fish eggs	fish eggs	1
	Total Fish Eggs:	**684**
Larval Fish Fragments		
larval fish fragment	larval fish fragments	4
	Total Larval Fish Fragments:	**4**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	Total All Taxa:	**697**

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

Survey: WBF001 Survey Date: March 31, 2011

SIBI Filtrate Flow - Onshore Pump Samples

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

Survey: WBF001 Survey Date: March 31, 2011

SIBI Sweep Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
fish eggs (early development stage)	fish eggs	4
fish eggs	fish eggs	1
	Total Fish Eggs:	**5**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	SIBI Sweep Total: All Taxa:	**5**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBF003 Survey Date: May 5, 2011

SIBI Filtrate Flow - Onshore Pump Samples

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

Survey: WBF003 Survey Date: May 5, 2011

SIBI Sweep Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
No Eggs		
	Total Fish Eggs:	**0**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	SIBI Sweep Total: All Taxa:	**0**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBF005 Survey Date: June 9, 2011

SIBI Filtrate Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
No Eggs		
	Total Fish Eggs:	**0**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	SIBI Filtrate Total: All Taxa:	**0**

Survey: WBF005 Survey Date: June 9, 2011

SIBI Sweep Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
No Eggs		
	Total Fish Eggs:	**0**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	SIBI Sweep Total: All Taxa:	**0**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBF007 Survey Date: July 19, 2011

SIBI Filtrate Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
No Eggs		
	Total Fish Eggs:	**0**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	SIBI Filtrate Total: All Taxa:	**0**

Survey: WBF007 Survey Date: July 19, 2011

SIBI Sweep Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
fish eggs (early development stage)	fish eggs	2
	Total Fish Eggs:	**2**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	SIBI Sweep Total: All Taxa:	**2**

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBF009 Survey Date: August 9, 2011

SIBI Filtrate Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
		Total Entrainable Larval Fishes: 0
Fish Eggs		
fish eggs	fish eggs	1
		Total Fish Eggs: 1
Target Invertebrates		
No Target Invertebrates		
		Total Target Invertebrates: 0
		SIBI Filtrate Total: All Taxa: 1

Survey: WBF009 Survey Date: August 9, 2011

SIBI Sweep Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
		Total Entrainable Larval Fishes: 0
Fish Eggs		
No Eggs		
		Total Fish Eggs: 0
Target Invertebrates		
No Target Invertebrates		
		Total Target Invertebrates: 0
		SIBI Sweep Total: All Taxa: 0

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, Second, and Third Quarters of 2011. **Data presented are preliminary pending final QC reviews.**

Survey: WBF011 Survey Date: September 6, 2011

SIBI Filtrate Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
No Fish		
	Total Entrainable Larval Fishes:	**0**
Fish Eggs		
No Eggs		
	Total Fish Eggs:	**0**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	SIBI Filtrate Total: All Taxa:	**0**

Survey: WBF011 Survey Date: September 6, 2011

SIBI Sweep Flow - Onshore Pump Samples

Taxon	Common Name	Adjusted Larval Count
Entrainable Larval Fishes		
Genyonemus lineatus	white croaker	1
	Total Entrainable Larval Fishes:	**1**
Fish Eggs		
Citharichthys spp. (eggs)	sanddab eggs	1
fish eggs (early development stage)	fish eggs	1
	Total Fish Eggs:	**2**
Target Invertebrates		
No Target Invertebrates		
	Total Target Invertebrates:	**0**
	SIBI Sweep Total: All Taxa:	**3**

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

West Basin Intake Assessment Study - Larval Fish Lengths

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

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

West Basin Intake Assessment Study - Larval Fish Lengths

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

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
Parophrys vetulus	English sole	4	3	2.63-3.54	3.02
larval fish - damaged	damaged larval fishes	3	0	-	-
Zaniolepis frenata	shortspine combfish	3	3	2.82-3.17	2.96
larval fish fragment	larval fish fragments	2	0	-	-
Chitonotus/Icelinus 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
Sebastes miniatus	vermilion rockfish	1	0	-	-
Sebastes spp. V	rockfishes	1	1	2.97	2.97
Stenobrachius leucopsarus	northern lampfish	1	1	3.39	3.39
	Total:	**18**	**11**		

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

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

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

West Basin Intake Assessment Study - Larval Fish Lengths

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

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

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

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
No Fish					
	Total:	**0**	**0**		

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

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
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	-	-
Chromis punctipinnis	blacksmith	1	1	2.31	2.31
Pleuronichthys spp.	turbots	1	0	-	-
Sciaenidae	croakers	1	0	-	-
	Total:	**13**	**5**		

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

West Basin Intake Assessment Study - Larval Fish Lengths

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

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

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

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

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

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

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

West Basin Intake Assessment Study - Larval Fish Lengths

Survey: **WBP007**
Start Date: **July 19, 2011**

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
larval fish - damaged	damaged larval fishes	3	0	-	-
Gobiesox spp.	clingfishes	2	2	2.80-2.96	2.88
Gibbonsia spp.	kelpfishes	1	1	4.03	4.03
Hypsoblennius spp.	combtooth blennies	1	1	1.94	1.94
larval fish fragment	larval fish fragments	1	0	-	-
	Total:	**8**	**4**		

Survey: **WBP008**
Start Date: **July 28, 2011**

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
No Fish					
	Total:	**0**	**0**		

Survey: **WBP009**
Start Date: **August 9, 2011**

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
Hypsoblennius spp.	combtooth blennies	7	7	1.80-2.31	1.98
Gibbonsia spp.	kelpfishes	1	0	-	-
	Total:	**8**	**7**		

Survey: **WBP010**
Start Date: **August 22, 2011**

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
No Fish					
	Total:	**0**	**0**		

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

West Basin Intake Assessment Study - Larval Fish Lengths

Survey: **WBP011**
Start Date: **September 6, 2011**

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
CIQ goby complex	gobies	5	2	2.53-2.87	2.70
Hypsoblennius spp.	combtooth blennies	3	2	2.01-2.15	2.08
larval fish fragment	larval fish fragments	3	0	-	-
larval fish - damaged	damaged larval fishes	2	0	-	-
Citharichthys stigmaeus	speckled sanddab	1	0	-	-
Engraulis mordax	northern anchovy	1	0	-	-
Gibbonsia spp.	kelpfishes	1	1	6.84	6.84
Gobiesocidae	clingfishes	1	0	-	-
larvae, yolksac	yolksac larvae	1	0	-	-
Paralichthys californicus	California halibut	1	0	-	-
Syngnathidae	pipefishes	1	1	8.17	8.17
	Total:	**20**	**6**		

Survey: **WBP012**
Start Date: **September 22, 2011**

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
Citharichthys stigmaeus	speckled sanddab	4	1	1.21	1.21
larval fish fragment	larval fish fragments	4	0	-	-
larval fish - damaged	damaged larval fishes	3	0	-	-
Clupeiformes	herrings and anchovies	1	0	-	-
Hypsoblennius spp.	combtooth blennies	1	1	2.19	2.19
	Total:	**13**	**2**		

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

West Basin SIBI Feed Water - Larval Fish Lengths

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

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
No Fish					
	Total:	**0**	**0**		

West Basin SIBI Feed Water - Larval Fish Lengths

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

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
No Fish					
	Total:	**0**	**0**		

West Basin SIBI Feed Water - Larval Fish Lengths

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

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
No Fish					
	Total:	**0**	**0**		

West Basin SIBI Feed Water - Larval Fish Lengths

Survey: **WBF007**
Start Date: **July 19, 2011**

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
No Fish					
	Total:	**0**	**0**		

West Basin SIBI Feed Water - Larval Fish Lengths

Survey: **WBF009**
Start Date: **August 9, 2011**

Taxon	Common Name	Total Count	Measured Count	Length Range (mm)	Average Length (mm)
No Fish					
	Total:	**0**	**0**		

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

West Basin SIBI Feed Water - Larval Fish Lengths

Survey: **WBF011**
Start Date: **September 6, 2011**

Taxon	Common Name		Total Count	Measured Count	Length Range (mm)	Averag Lengt (mm
Genyonemus lineatus	white croaker		1	1	1.92	1.9
		Total:	**1**	**1**		