

Harbor Generating Station

Appendix C

Entrainment Data

C1. Entrainment Data by Survey

C2. Calculated Total Annual Entrainment and Standard
Error Data

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA01
Start Date: 1/10/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	244	390.33
<i>Acanthogobius flavimanus</i>	yellowfin goby	130	204.34
<i>Genyonemus lineatus</i>	white croaker	104	171.09
<i>Lepidogobius lepidus</i>	bay goby	18	28.33
Sciaenidae unid.	croakers	16	25.83
larval fish fragment	unidentified larval fishes	12	19.76
<i>Gillichthys mirabilis</i>	longjaw mudsucker	11	18.57
<i>Clinocottus analis</i>	wooly sculpin	9	15.22
<i>Paralichthys californicus</i>	California halibut	2	3.40
<i>Pleuronichthys guttulatus</i>	diamond turbot	2	3.35
<i>Hypsoblennius</i> spp.	combtooth blennies	2	2.90
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	2.05
<i>Leptocottus armatus</i>	Pacific staghorn sculpin	1	1.92
larval/post-larval fish unid.	larval fishes	1	1.71
<i>Gobiesox</i> spp.	clingfishes	1	1.68
Gobiesocidae unid.	clingfishes	1	1.48
		Total Fishes: 555	
Eggs			
<i>Genyonemus lineatus</i> (eggs)	white croaker eggs	262	447.99
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	71	111.95
<i>Paralichthys californicus</i> (eggs)	California halibut eggs	37	60.27
fish eggs unid.	unidentified fish eggs	15	26.08
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	10	17.14
		Total Eggs: 395	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	15	24.73
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	3	4.45
Grapsidae unid. (megalops)	shore crab megalops	1	1.75
		Total Target Invertebrates: 19	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA02
Start Date: 1/23/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	154	368.16
<i>Acanthogobius flavimanus</i>	yellowfin goby	144	342.99
<i>Genyonemus lineatus</i>	white croaker	19	46.96
<i>Lepidogobius lepidus</i>	bay goby	8	20.70
Sciaenidae unid.	croakers	2	5.16
<i>Gobiesox</i> spp.	clingfishes	1	3.14
larval/post-larval fish unid.	larval fishes	1	3.14
larval fish fragment	unidentified larval fishes	1	3.05
<i>Paralichthys californicus</i>	California halibut	1	2.58
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	2.58
<i>Ruscarius creaseri</i>	roughcheek sculpin	1	2.58
		Total Fishes: 333	
Eggs			
<i>Genyonemus lineatus</i> (eggs)	white croaker eggs	498	1,306.88
fish eggs unid.	unidentified fish eggs	128	324.39
<i>Paralichthys californicus</i> (eggs)	California halibut eggs	25	59.09
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	12	28.85
Paralichthyidae unid. (eggs)	sand flounder eggs	8	20.68
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	7	15.85
		Total Eggs: 678	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	7	18.51
unidentified crab (megalops)	unidentified crab megalops	4	8.87
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	1	2.86
		Total Target Invertebrates: 12	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA02
Start Date: 1/23/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	83	145.43
<i>Genyonemus lineatus</i>	white croaker	88	138.63
<i>Acanthogobius flavimanus</i>	yellowfin goby	77	119.88
<i>Lepidogobius lepidus</i>	bay goby	74	117.32
Sciaenidae unid.	croakers	7	9.51
<i>Ruscarius creaseri</i>	roughcheek sculpin	5	8.66
<i>Clinocottus analis</i>	wooly sculpin	4	6.51
larval/post-larval fish unid.	larval fishes	3	5.51
<i>Icelinus</i> spp.	sculpins	3	4.69
Myctophidae unid.	lanternfishes	2	3.79
<i>Hypsoblennius</i> spp.	combtooth blennies	2	3.26
larval fish fragment	unidentified larval fishes	2	3.12
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	1.89
<i>Sebastes</i> spp.	rockfishes	1	1.89
<i>Merluccius productus</i>	Pacific hake	1	1.41
<i>Engraulis mordax</i>	northern anchovy	1	1.36
<i>Paralichthys californicus</i>	California halibut	1	1.36
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	1.32
		Total Fishes: 356	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	95	150.17
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	9	13.57
unidentified crab (megalops)	unidentified crab megalops	8	12.80
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	1	1.41
<i>Loligo opalescens</i>	market squid	1	1.36
Grapsidae unid. (megalops)	shore crab megalops	1	1.32
		Total Target Invertebrates: 115	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA02
Start Date: 1/23/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	37	195.04
Gobiidae unid.	gobies	9	46.05
<i>Ruscarius creaseri</i>	roughcheek sculpin	3	18.06
<i>Atherinopsis californiensis</i>	jacksmelt	3	12.94
<i>Acanthogobius flavimanus</i>	yellowfin goby	2	12.48
<i>Pleuronichthys guttulatus</i>	diamond turbot	2	8.98
<i>Lepidogobius lepidus</i>	bay goby	1	7.86
<i>Paralichthys californicus</i>	California halibut	1	7.86
<i>Clinocottus analis</i>	wooly sculpin	1	6.24
<i>Orthonopias triacis</i>	snubnose sculpin	1	5.02
<i>Stenobranchius leucopsarus</i>	northern lampfish	1	5.02
<i>Atherinops affinis</i>	topsmelt	1	3.96
Sciaenidae unid.	croakers	1	3.96
		Total Fishes: 63	
Target Invertebrates			
<i>Loligo opalescens</i>	market squid	12	62.89
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	5	32.56
		Total Target Invertebrates: 17	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA02
Start Date: 1/23/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	163	408.08
Gobiidae unid.	gobies	19	42.83
<i>Lepidogobius lepidus</i>	bay goby	18	42.56
Sciaenidae unid.	croakers	13	27.77
<i>Paralichthys californicus</i>	California halibut	8	23.90
<i>Ruscarius creaseri</i>	roughcheek sculpin	6	14.61
larval fish fragment	unidentified larval fishes	5	13.41
Stichaeidae unid.	pricklebacks	2	5.33
<i>Clinocottus analis</i>	wooly sculpin	1	3.35
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	3.35
<i>Scorpaenichthys marmoratus</i>	cabezon	1	3.35
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	3.06
<i>Atherinopsis californiensis</i>	jacks melt	1	2.43
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	2.43
<i>Stenobranchius leucopsarus</i>	northern lampfish	1	2.43
<i>Hypsoblennius</i> spp.	combtooth blennies	1	2.27
<i>Gobiesox</i> spp.	clingfishes	1	2.17
<i>Zaniolepis</i> spp.	combfishes	1	2.17
<i>Citharichthys sordidus</i>	Pacific sanddab	1	1.80
larval/post-larval fish unid.	larval fishes	1	1.80
		Total Fishes: 246	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	57	124.15
<i>Loligo opalescens</i>	market squid	14	36.75
unidentified crab (megalops)	unidentified crab megalops	8	17.35
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	7	17.03
Paguridae unid. (megalops)	hermit crab megalops	1	2.27
Porcellanidae unid. (megalops)	porcelain crab megalops	1	2.27
		Total Target Invertebrates: 88	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA03
Start Date: 2/7/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Acanthogobius flavimanus</i>	yellowfin goby	376	1,022.76
Gobiidae unid.	gobies	308	841.71
<i>Genyonemus lineatus</i>	white croaker	161	448.72
<i>Lepidogobius lepidus</i>	bay goby	35	95.48
<i>Paralichthys californicus</i>	California halibut	7	18.13
<i>Gillichthys mirabilis</i>	longjaw mudsucker	5	13.84
<i>Paraclinus</i> spp.	clinid	3	8.94
<i>Gobiesox</i> spp.	clingfishes	3	7.99
Sciaenidae unid.	croakers	1	2.98
<i>Citharichthys sordidus</i>	Pacific sanddab	1	2.88
<i>Hypsoblennius</i> spp.	combtooth blennies	1	2.78
larval fish fragment	unidentified larval fishes	1	2.66
larval/post-larval fish unid.	larval fishes	1	2.55
<i>Clinocottus analis</i>	wooly sculpin	1	2.30
		Total Fishes: 904	
Eggs			
<i>Genyonemus lineatus</i> (eggs)	white croaker eggs	532	1,492.88
fish eggs unid.	unidentified fish eggs	117	318.61
<i>Paralichthys californicus</i> (eggs)	California halibut eggs	77	223.82
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	20	54.95
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	7	19.61
Paralichthyidae unid. (eggs)	sand flounder eggs	5	17.08
		Total Eggs: 758	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	115	326.08
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	6	17.25
Majidae unid. (megalops)	spider crab megalops	5	14.80
unidentified crab (megalops)	unidentified crab megalops	5	12.80
Paguridae unid. (megalops)	hermit crab megalops	1	3.12
		Total Target Invertebrates: 132	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA04
Start Date: 2/21/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Acanthogobius flavimanus</i>	yellowfin goby	125	360.91
<i>Genyonemus lineatus</i>	white croaker	92	284.52
Gobiidae unid.	gobies	31	101.10
<i>Lepidogobius lepidus</i>	bay goby	10	30.39
larvae, unidentified yolksac	unidentified yolksac larvae	7	25.00
larval fish fragment	unidentified larval fishes	6	20.31
<i>Citharichthys stigmaeus</i>	speckled sanddab	2	7.42
Sciaenidae unid.	croakers	2	7.42
<i>Rhinogobiops nicholsi</i>	blackeye goby	2	6.69
Pleuronectiformes unid.	flatfishes	2	6.60
<i>Paralichthys californicus</i>	California halibut	2	6.50
<i>Ruscarius creaseri</i>	roughcheek sculpin	2	5.79
<i>Gobiesox</i> spp.	clingfishes	1	5.48
		Total Fishes: 284	
Eggs			
fish eggs unid.	unidentified fish eggs	1,263	3,764.61
<i>Genyonemus lineatus</i> (eggs)	white croaker eggs	975	3,137.41
Paralichthyidae unid. (eggs)	sand flounder eggs	82	266.29
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	29	98.06
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	7	24.55
Engraulidae unid. (eggs)	anchovy eggs	6	17.36
		Total Eggs: 2,362	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	55	183.51
Majidae unid. (megalops)	spider crab megalops	5	16.01
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	5	13.88
unidentified crab (megalops)	unidentified crab megalops	2	6.93
Grapsidae unid. (megalops)	shore crab megalops	1	3.71
		Total Target Invertebrates: 68	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA04
Start Date: 2/21/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	206	338.62
<i>Acanthogobius flavimanus</i>	yellowfin goby	216	316.14
Gobiidae unid.	gobies	55	91.04
larval fish fragment	unidentified larval fishes	31	51.83
<i>Lepidogobius lepidus</i>	bay goby	27	43.32
larvae, unidentified yolksac	unidentified yolksac larvae	13	22.39
Sciaenidae unid.	croakers	12	20.84
<i>Hypsoblennius</i> spp.	combtooth blennies	7	12.24
<i>Ruscarius creaseri</i>	roughcheek sculpin	4	6.83
Cottidae unid.	sculpins	4	6.37
<i>Paralichthys californicus</i>	California halibut	3	4.88
Bathymasteridae unid.	ronquils	2	3.38
larval/post-larval fish unid.	larval fishes	1	1.70
<i>Atherinops affinis</i>	topsmelt	1	1.63
<i>Citharichthys sordidus</i>	Pacific sanddab	1	1.63
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	1.63
<i>Stenobranchius leucopsarus</i>	northern lampfish	1	1.63
<i>Merluccius productus</i>	Pacific hake	1	1.51
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	1.51
		Total Fishes: 587	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	92	150.82
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	10	17.19
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	8	13.97
Majidae unid. (megalops)	spider crab megalops	5	8.29
unidentified crab (megalops)	unidentified crab megalops	4	5.53
		Total Target Invertebrates: 119	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA04
Start Date: 2/21/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	107	497.93
Gobiidae unid.	gobies	14	61.98
larval fish fragment	unidentified larval fishes	7	32.53
larvae, unidentified yolksac	unidentified yolksac larvae	4	23.35
<i>Acanthogobius flavimanus</i>	yellowfin goby	4	11.06
Bathymasteridae unid.	ronquils	2	9.50
<i>Clinocottus analis</i>	wooly sculpin	1	6.73
larval fish - damaged	unidentified larval fishes	1	6.73
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	5.84
Cottidae unid.	sculpins	1	5.11
<i>Paralichthys californicus</i>	California halibut	1	5.11
Sciaenidae unid.	croakers	1	5.11
<i>Artedius lateralis</i>	smoothhead sculpin	1	2.76
Chaenopsidae unid.	tube blennies	1	2.76
		Total Fishes: 146	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	14	59.07
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	10	39.36
Majidae unid. (megalops)	spider crab megalops	4	11.06
		Total Target Invertebrates: 28	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA04
Start Date: 2/21/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	162	448.08
larval fish fragment	unidentified larval fishes	42	120.28
<i>Ruscarius creaseri</i>	roughcheek sculpin	10	26.89
<i>Lepidogobius lepidus</i>	bay goby	11	25.04
Gobiidae unid.	gobies	9	24.15
larvae, unidentified yolksac	unidentified yolksac larvae	8	21.33
<i>Rhinogobiops nicholsi</i>	blackeye goby	7	19.82
Bathymasteridae unid.	ronquils	6	16.26
Cottidae unid.	sculpins	6	15.68
<i>Zaniolepis frenata</i>	shortspine combfish	4	11.93
Labrisomidae unid.	labrisomid blennies	2	5.74
<i>Sebastes</i> spp.	rockfishes	2	5.09
<i>Hypsoblennius</i> spp.	combtooth blennies	2	4.97
Sciaenidae unid.	croakers	2	4.39
<i>Artedius harringtoni</i>	scalyhead sculpin	1	4.04
<i>Seriphus politus</i>	queenfish	1	4.04
<i>Orthonopias triacis</i>	snubnose sculpin	1	2.99
<i>Acanthogobius flavimanus</i>	yellowfin goby	1	2.92
<i>Gillichthys mirabilis</i>	longjaw mudsucker	1	2.75
<i>Oligocottus</i> spp.	sculpins	1	2.75
<i>Stenobranchius leucopsarus</i>	northern lampfish	1	2.75
Chaenopsidae unid.	tube blennies	1	2.48
<i>Gobiesox</i> spp.	clingfishes	1	2.48
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	2.48
larval/post-larval fish unid.	larval fishes	1	2.17
<i>Clinocottus analis</i>	wooly sculpin	1	1.91
		Total Fishes: 285	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	24	69.16
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	8	17.22
unidentified crab (megalops)	unidentified crab megalops	5	13.57
Paguridae unid. (megalops)	hermit crab megalops	3	8.76
Majidae unid. (megalops)	spider crab megalops	2	4.39
		Total Target Invertebrates: 42	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA05
Start Date: 3/8/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Acanthogobius flavimanus</i>	yellowfin goby	1,121	4,384.63
Gobiidae unid.	gobies	321	1,145.63
<i>Genyonemus lineatus</i>	white croaker	83	316.93
<i>Lepidogobius lepidus</i>	bay goby	11	37.82
larval fish fragment	unidentified larval fishes	6	16.34
<i>Gobiesox</i> spp.	clingfishes	3	13.03
<i>Gillichthys mirabilis</i>	longjaw mudsucker	4	10.59
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	7.50
<i>Leptocottus armatus</i>	Pacific staghorn sculpin	1	7.50
larval fish - damaged	unidentified larval fishes	2	6.78
larvae, unidentified yolksac	unidentified yolksac larvae	2	5.82
Bathymasteridae unid.	ronquils	1	2.73
<i>Paralichthys californicus</i>	California halibut	1	2.65
		Total Fishes: 1,557	
Eggs			
Sciaenidae unid. (eggs)	croaker eggs	680	2,057.21
fish eggs unid.	unidentified fish eggs	531	1,538.01
<i>Genyonemus lineatus</i> (eggs)	white croaker eggs	293	925.62
Paralichthyidae unid. (eggs)	sand flounder eggs	214	612.63
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	80	240.99
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	19	59.95
Engraulidae unid. (eggs)	anchovy eggs	3	10.22
		Total Eggs: 1,820	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	57	169.02
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	7	19.59
unidentified crab (megalops)	unidentified crab megalops	7	19.16
Majidae unid. (megalops)	spider crab megalops	3	9.50
<i>Pachygrapsus crassipes</i> (megalops)	striped shore crab megalops	1	2.91
<i>Hemigrapsus nudus</i> (megalops)	purple shore crab megalops	1	2.88
		Total Target Invertebrates: 76	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA06
Start Date: 3/20/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	199	630.28
<i>Acanthogobius flavimanus</i>	yellowfin goby	76	246.51
<i>Genyonemus lineatus</i>	white croaker	21	71.36
<i>Engraulis mordax</i>	northern anchovy	9	28.23
<i>Lepidogobius lepidus</i>	bay goby	9	25.18
<i>Leptocottus armatus</i>	Pacific staghorn sculpin	5	16.17
Sciaenidae unid.	croakers	2	6.76
<i>Orthonopias triacis</i>	snubnose sculpin	2	6.09
<i>Gillichthys mirabilis</i>	longjaw mudsucker	2	5.96
<i>Icelinus</i> spp.	sculpins	2	5.96
<i>Merluccius productus</i>	Pacific hake	1	3.71
<i>Gobiesox</i> spp.	clingfishes	1	3.59
larvae, unidentified yolksac	unidentified yolksac larvae	1	3.17
Cottidae unid.	sculpins	1	2.38
		Total Fishes: 331	
Eggs			
fish eggs unid.	unidentified fish eggs	686	2,244.82
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	220	699.98
Sciaenidae unid. (eggs)	croaker eggs	47	175.54
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	8	25.40
Paralichthyidae unid. (eggs)	sand flounder eggs	5	18.61
Engraulidae unid. (eggs)	anchovy eggs	2	6.60
		Total Eggs: 968	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	38	129.42
Majidae unid. (megalops)	spider crab megalops	6	20.43
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	5	17.99
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	1	3.59
<i>Loligo opalescens</i>	market squid	1	3.59
		Total Target Invertebrates: 51	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA06
Start Date: 3/20/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	114	246.36
<i>Genyonemus lineatus</i>	white croaker	64	132.25
<i>Acanthogobius flavimanus</i>	yellowfin goby	45	97.88
<i>Lepidogobius lepidus</i>	bay goby	23	44.95
larval fish - damaged	unidentified larval fishes	8	17.61
<i>Engraulis mordax</i>	northern anchovy	6	13.42
Sciaenidae unid.	croakers	5	10.73
<i>Gobiesox</i> spp.	clingfishes	4	8.62
Engraulidae unid.	anchovies	4	7.64
<i>Icelinus</i> spp.	sculpins	3	7.13
<i>Stenobranchius leucopsarus</i>	northern lampfish	3	6.66
larval fish fragment	unidentified larval fishes	3	5.67
Cottidae unid.	sculpins	3	5.62
Bathymasteridae unid.	ronquils	2	3.62
<i>Clinocottus analis</i>	wooly sculpin	2	3.11
<i>Bathylagus ochotensis</i>	popeye blacksmelt	1	2.37
<i>Sebastes</i> spp.	rockfishes	1	2.37
Myctophidae unid.	lanternfishes	1	2.34
<i>Parophrys vetulus</i>	English sole	1	2.26
<i>Ruscarius creaseri</i>	roughcheek sculpin	1	2.26
Chaenopsidae unid.	tube blennies	1	2.10
Pleuronectiformes unid.	flatfishes	1	2.05
Atherinopsidae unid.	silversides	1	1.52
larvae, unidentified yolksac	unidentified yolksac larvae	1	1.52
<i>Typhlogobius californiensis</i>	blind goby	1	1.52
		Total Fishes: 299	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	66	135.94
Majidae unid. (megalops)	spider crab megalops	28	56.55
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	14	26.64
unidentified crab (megalops)	unidentified crab megalops	5	10.23
Paguridae unid. (megalops)	hermit crab megalops	3	6.19
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	2	3.88
<i>Cancer gracilis</i> (megalops)	slender crab megalops	1	2.10
Diogenidae (megalops)	left-handed hermit crabs	1	2.10
<i>Loligo opalescens</i>	market squid	1	2.02
		Total Target Invertebrates: 121	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA06
Start Date: 3/20/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	14	71.03
<i>Genyonemus lineatus</i>	white croaker	13	68.95
<i>Gobiesox</i> spp.	clingfishes	4	23.19
<i>Icelinus</i> spp.	sculpins	3	17.36
Sciaenidae unid.	croakers	3	13.76
<i>Artedius lateralis</i>	smoothhead sculpin	2	13.40
<i>Bathylagus ochotensis</i>	popeye blacksmelt	2	13.39
Pleuronectidae unid.	righteye flounders	2	9.80
<i>Lepidogobius lepidus</i>	bay goby	1	6.70
<i>Parophrys vetulus</i>	English sole	1	6.70
<i>Zaniolepis frenata</i>	shortspine combfish	1	6.70
<i>Leuroglossus stilbius</i>	California smoothtongue	1	6.69
<i>Clinocottus analis</i>	wooly sculpin	1	5.84
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	5.84
<i>Orthonopias triacis</i>	snubnose sculpin	1	5.84
<i>Acanthogobius flavimanus</i>	yellowfin goby	1	3.96
<i>Engraulis mordax</i>	northern anchovy	1	3.96
<i>Merluccius productus</i>	Pacific hake	1	3.96
<i>Paralichthys californicus</i>	California halibut	1	3.96
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	3.96
		Total Fishes: 55	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	14	79.52
Majidae unid. (megalops)	spider crab megalops	10	45.25
Paguridae unid. (megalops)	hermit crab megalops	3	17.35
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	3	11.89
unidentified crab (megalops)	unidentified crab megalops	1	6.70
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	1	3.96
		Total Target Invertebrates: 32	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA06
Start Date: 3/20/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	185	544.92
Sciaenidae unid.	croakers	50	147.45
Gobiidae unid.	gobies	22	74.11
<i>Stenobranchius leucopsarus</i>	northern lampfish	18	51.71
<i>Sebastes</i> spp.	rockfishes	10	31.22
larval fish fragment	unidentified larval fishes	11	30.44
<i>Rhinogobiops nicholsi</i>	blackeye goby	7	22.37
larval fish - damaged	unidentified larval fishes	7	19.39
<i>Orthonopias triacis</i>	snubnose sculpin	5	16.11
<i>Oxylebius pictus</i>	painted greenling	5	14.97
<i>Lepidogobius lepidus</i>	bay goby	5	14.46
larvae, unidentified yolksac	unidentified yolksac larvae	5	14.36
Pleuronectidae unid.	righteye flounders	4	13.76
<i>Artedius lateralis</i>	smoothhead sculpin	4	13.38
<i>Ruscarius creaseri</i>	roughcheek sculpin	5	12.66
Cottidae unid.	sculpins	4	12.48
<i>Engraulis mordax</i>	northern anchovy	4	11.79
<i>Hypsoblennius</i> spp.	combtooth blennies	3	10.62
<i>Acanthogobius flavimanus</i>	yellowfin goby	3	10.10
Bathymasteridae unid.	ronquils	3	9.20
<i>Typhlogobius californiensis</i>	blind goby	3	8.82
<i>Leuroglossus stilbius</i>	California smoothtongue	3	8.20
<i>Clinocottus analis</i>	wooly sculpin	3	7.68
<i>Parophrys vetulus</i>	English sole	2	7.67
<i>Gibbonsia</i> spp.	clinid kelpfishes	2	6.84
<i>Atherinopsis californiensis</i>	jacksmelt	3	6.77
<i>Gobiesox</i> spp.	clingfishes	3	6.65
<i>Icelinus</i> spp.	sculpins	2	6.33
Paralichthyidae unid.	sand flounders	2	6.15
Labrisomidae unid.	labrisomid blennies	1	3.84
<i>Scorpaenichthys marmoratus</i>	cabezon	1	3.77
<i>Diaphus theta</i>	California headlight fish	1	3.01
<i>Zaniolepis frenata</i>	shortspine combfish	1	3.01
<i>Citharichthys</i> spp.	sanddabs	1	2.56
larval/post-larval fish unid.	larval fishes	1	2.56
<i>Leuroglossus</i> spp.	smoothtongues	1	2.56
<i>Paralichthys californicus</i>	California halibut	1	2.56
<i>Bathylagus ochotensis</i>	popeye blacksmelt	1	2.43
Hexagrammidae unid.	greenlings	1	2.43
<i>Merluccius productus</i>	Pacific hake	1	1.66
		Total Fishes: 394	

(continued)

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA06
Start Date: 3/20/2006
Stations: H5-H6 (continued)

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	51	139.63
Majidae unid. (megalops)	spider crab megalops	27	68.63
Paguridae unid. (megalops)	hermit crab megalops	10	25.72
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	3	8.84
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	3	7.81
Diogenidae (megalops)	left-handed hermit crabs	2	4.74
<i>Loligo opalescens</i>	market squid	1	2.43
<i>Cancer productus</i> (megalops)	red rock crab megalops	1	1.66
<i>Cancer</i> spp. (megalops)	cancer crabs megalops	1	1.66
Total Target Invertebrates:		99	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA07
Start Date: 4/3/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	583	1,752.83
<i>Genyonemus lineatus</i>	white croaker	271	813.48
<i>Acanthogobius flavimanus</i>	yellowfin goby	76	215.63
Sciaenidae unid.	croakers	25	76.62
<i>Lepidogobius lepidus</i>	bay goby	11	32.91
larval fish fragment	unidentified larval fishes	9	29.32
larvae, unidentified yolksac	unidentified yolksac larvae	7	20.44
larval fish - damaged	unidentified larval fishes	3	10.56
<i>Gibbonsia</i> spp.	clinid kelpfishes	2	6.24
<i>Sardinops sagax</i>	Pacific sardine	2	5.23
<i>Gillichthys mirabilis</i>	longjaw mudsucker	2	5.10
<i>Girella nigricans</i>	opaleye	1	3.49
<i>Icelinus</i> spp.	sculpins	1	3.48
Clupeidae unid.	herrings	1	3.12
<i>Hypsoblennius</i> spp.	combtooth blennies	1	3.12
Engraulidae unid.	anchovies	1	2.11
<i>Engraulis mordax</i>	northern anchovy	1	2.11
<i>Gobiesox</i> spp.	clingfishes	1	2.11
		Total Fishes: 998	
Eggs			
fish eggs unid.	unidentified fish eggs	782	2,335.47
Paralichthyidae unid. (eggs)	sand flounder eggs	581	1,779.17
Sciaenidae unid. (eggs)	croaker eggs	519	1,600.91
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	24	73.85
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	5	15.77
Engraulidae unid. (eggs)	anchovy eggs	5	15.48
		Total Eggs: 1,916	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	34	103.22
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	22	51.77
Paguridae unid. (megalops)	hermit crab megalops	6	20.64
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	6	18.75
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	3	8.43
Majidae unid. (megalops)	spider crab megalops	2	6.69
Diogenidae (megalops)	left-handed hermit crabs	1	3.49
unidentified crab (megalops)	unidentified crab megalops	1	3.49
<i>Loligo opalescens</i>	market squid	1	2.11
		Total Target Invertebrates: 76	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA08
Start Date: 4/17/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	346	1,057.06
<i>Genyonemus lineatus</i>	white croaker	114	342.73
<i>Lepidogobius lepidus</i>	bay goby	23	69.22
<i>Engraulis mordax</i>	northern anchovy	15	44.21
Sciaenidae unid.	croakers	10	32.48
<i>Gillichthys mirabilis</i>	longjaw mudsucker	5	14.47
<i>Icelinus</i> spp.	sculpins	5	13.25
<i>Icelinus quadriseriatus</i>	yellowchin sculpin	4	11.08
larval fish fragment	unidentified larval fishes	3	9.46
<i>Hypsoblennius</i> spp.	combtooth blennies	3	7.83
<i>Gobiesox</i> spp.	clingfishes	2	6.24
larval fish - damaged	unidentified larval fishes	2	6.03
<i>Paralichthys californicus</i>	California halibut	2	5.89
larvae, unidentified yolksac	unidentified yolksac larvae	2	5.63
<i>Leptocottus armatus</i>	Pacific staghorn sculpin	1	3.81
<i>Pleuronichthys verticalis</i>	hornyhead turbot	1	3.42
<i>Acanthogobius flavimanus</i>	yellowfin goby	1	3.05
Pleuronectidae unid.	righteye flounders	1	3.05
<i>Bathylagus ochotensis</i>	pop-eye blacksmelt	1	2.61
		Total Fishes: 541	
Eggs			
fish eggs unid.	unidentified fish eggs	751	2,262.31
Sciaenidae unid. (eggs)	croaker eggs	632	1,901.23
Paralichthyidae unid. (eggs)	sand flounder eggs	154	457.96
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	8	22.14
Engraulidae unid. (eggs)	anchovy eggs	3	8.26
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	2	5.89
		Total Eggs: 1,550	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	90	261.39
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	40	116.01
Majidae unid. (megalops)	spider crab megalops	21	61.93
Paguridae unid. (megalops)	hermit crab megalops	8	24.25
Grapsidae unid. (megalops)	shore crab megalops	2	6.42
<i>Cancer antennarius</i> (megalops)	brown rock crab megalops	2	6.15
<i>Loligo opalescens</i>	market squid	2	5.42
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	1	2.82
unidentified crab (megalops)	unidentified crab megalops	1	2.61
		Total Target Invertebrates: 167	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA08
Start Date: 4/17/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	560	1,006.34
Gobiidae unid.	gobies	167	318.25
Engraulidae unid.	anchovies	27	52.48
Sciaenidae unid.	croakers	20	36.32
<i>Engraulis mordax</i>	northern anchovy	19	36.01
<i>Gillichthys mirabilis</i>	longjaw mudsucker	16	30.94
<i>Hypsoblennius</i> spp.	combtooth blennies	14	21.64
Chitonotus / Icelinus	sculpins	9	18.17
<i>Gobiesox</i> spp.	clingfishes	10	16.24
Bathymasteridae unid.	ronquils	4	8.72
<i>Parophrys vetulus</i>	English sole	4	8.45
Atherinopsidae unid.	silversides	3	6.01
<i>Icelinus quadriseriatus</i>	yellowchin sculpin	3	5.29
<i>Seriphus politus</i>	queenfish	2	3.17
<i>Paralichthys californicus</i>	California halibut	1	2.37
Pleuronectidae unid.	righteye flounders	1	2.37
<i>Merluccius productus</i>	Pacific hake	1	1.97
Pleuronectiformes unid.	flatfishes	1	1.92
<i>Pleuronichthys</i> spp.	turbots	1	1.82
<i>Lyopsetta exilis</i>	slender sole	1	1.66
<i>Orthonopias triacis</i>	snubnose sculpin	1	1.66
<i>Chitonotus pugetensis</i>	roughback sculpin	1	1.54
<i>Sebastes</i> spp.	rockfishes	1	1.21
		Total Fishes: 867	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	180	310.24
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	106	171.38
Majidae unid. (megalops)	spider crab megalops	43	76.85
Paguridae unid. (megalops)	hermit crab megalops	18	29.93
Grapsidae unid. (megalops)	shore crab megalops	15	25.62
<i>Cancer antennarius</i> (megalops)	brown rock crab megalops	11	23.11
unidentified crab (megalops)	unidentified crab megalops	9	17.66
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	8	13.45
<i>Loligo opalescens</i>	market squid	6	11.03
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	2	4.73
Brachyura unid. (megalops)	unidentified crab megalops	1	1.92
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	1	1.92
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	1	1.55
<i>Cancer</i> spp. (megalops)	cancer crabs megalops	1	1.54
		Total Target Invertebrates: 402	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA08
Start Date: 4/17/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	242	1,445.78
Gobiidae unid.	gobies	32	193.23
Engraulidae unid.	anchovies	20	117.94
<i>Engraulis mordax</i>	northern anchovy	6	38.41
Sciaenidae unid.	croakers	5	31.72
<i>Parophrys vetulus</i>	English sole	3	20.41
<i>Artedius lateralis</i>	smoothhead sculpin	2	13.72
Cottidae unid.	sculpins	2	12.37
<i>Stenobranchius leucopsarus</i>	northern lampfish	2	11.36
<i>Lyopsetta exilis</i>	slender sole	1	7.03
<i>Atherinops affinis</i>	topsmelt	1	5.68
Bathymasteridae unid.	ronquils	1	5.68
<i>Hypsoblennius</i> spp.	combtooth blennies	1	5.68
<i>Merluccius productus</i>	Pacific hake	1	4.62
		Total Fishes: 319	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	145	874.41
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	51	278.59
<i>Cancer antennarius</i> (megalops)	brown rock crab megalops	36	232.16
Majidae unid. (megalops)	spider crab megalops	20	131.31
Grapsidae unid. (megalops)	shore crab megalops	11	70.47
unidentified crab (megalops)	unidentified crab megalops	9	48.49
Brachyura unid. (megalops)	unidentified crab megalops	7	34.43
<i>Loligo opalescens</i>	market squid	6	33.94
Paguridae unid. (megalops)	hermit crab megalops	5	28.99
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	3	13.87
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	2	13.72
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	2	11.65
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	2	9.25
Diogenidae (megalops)	left-handed hermit crabs	1	6.69
<i>Pachycheles rudis</i> (megalops)	thickclaw porcelain crab	1	4.62
		Total Target Invertebrates: 301	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA08
Start Date: 4/17/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	1,165	2,619.09
Engraulidae unid.	anchovies	220	385.41
Sciaenidae unid.	croakers	62	166.12
Gobiidae unid.	gobies	42	97.23
<i>Orthonopias triacis</i>	snubnose sculpin	26	73.81
<i>Engraulis mordax</i>	northern anchovy	21	53.38
<i>Parophrys vetulus</i>	English sole	16	40.66
<i>Ruscarius creaseri</i>	roughcheek sculpin	14	33.10
<i>Hypsoblennius</i> spp.	cometooth blennies	14	29.92
<i>Artedius lateralis</i>	smoothhead sculpin	9	26.01
Bathymasteridae unid.	ronquils	10	23.49
larval fish - damaged	unidentified larval fishes	9	23.33
<i>Gillichthys mirabilis</i>	longjaw mudsucker	8	15.37
<i>Seriphus politus</i>	queenfish	6	14.31
<i>Paralichthys californicus</i>	California halibut	5	13.67
larval fish fragment	unidentified larval fishes	7	13.05
<i>Merluccius productus</i>	Pacific hake	4	10.80
<i>Clinocottus analis</i>	wooly sculpin	4	10.44
<i>Gobiesox</i> spp.	clingfishes	4	9.87
<i>Pleuronichthys verticalis</i>	hornyhead turbot	4	9.31
<i>Pleuronichthys</i> spp.	turbots	4	9.29
<i>Stenobranchius leucopsarus</i>	northern lampfish	4	8.87
larvae, unidentified yolksac	unidentified yolksac larvae	3	8.68
Oligocottus / Clinocottus	sculpins	3	8.59
<i>Leuroglossus stilbius</i>	California smoothtongue	3	8.45
Chitonotus / Icelinus	sculpins	3	8.11
Cottidae unid.	sculpins	3	6.83
Labrisomidae unid.	labrisomid blennies	3	6.54
<i>Zaniolepis</i> spp.	combfishes	2	5.76
<i>Rhinogobiops nicholsi</i>	blackeye goby	2	5.27
<i>Isopsetta isolepis</i>	butter sole	2	5.01
<i>Sardinops sagax</i>	Pacific sardine	2	5.01
<i>Icelinus quadriseriatus</i>	yellowchin sculpin	2	4.70
Pleuronectiformes unid.	flatfishes	2	4.70
<i>Lyopsetta exilis</i>	slender sole	2	4.58
Pleuronectidae unid.	righteye flounders	2	3.12
<i>Sebastes</i> spp.	rockfishes	1	2.88
<i>Oxylebius pictus</i>	painted greenling	1	2.63
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	2.51
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	2.51
<i>Pleuronichthys ritteri</i>	spotted turbot	1	2.51
		Total Fishes: 1,697	

(continued)

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA08
Start Date: 4/17/2006
Stations: H5-H6 (continued)

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	582	1,213.76
<i>Cancer antennarius</i> (megalops)	brown rock crab megalops	215	539.41
Majidae unid. (megalops)	spider crab megalops	153	358.43
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	162	333.91
unidentified crab (megalops)	unidentified crab megalops	49	140.10
Paguridae unid. (megalops)	hermit crab megalops	56	137.18
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	55	128.46
Grapsidae unid. (megalops)	shore crab megalops	40	88.15
<i>Pachycheles rudis</i> (megalops)	thickclaw porcelain crab	12	28.38
<i>Cancer</i> spp. (megalops)	cancer crabs megalops	13	27.84
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	11	27.08
Diogenidae (megalops)	left-handed hermit crabs	8	22.04
Porcellanidae unid. (megalops)	porcelain crab megalops	8	21.85
<i>Loligo opalescens</i>	market squid	9	20.69
Brachyura unid. (megalops)	unidentified crab megalops	8	19.86
<i>Pachycheles pubescens</i> (megalops)	pubescent porcelain crab	6	15.80
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	4	8.67
<i>Cancer gracilis</i> (megalops)	slender crab megalops	4	8.35
<i>Petrolisthes cinctipes</i> (megalops)	flat porcelain crab megalops	1	2.63
<i>Petrolisthes eriomereus</i> (megalops)	flattop crab megalops	1	2.63
Total Target Invertebrates:		1,397	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA09
Start Date: 5/1/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	117	411.67
Gobiidae unid.	gobies	77	259.33
Sciaenidae unid.	croakers	39	141.83
larval fish - damaged	unidentified larval fishes	7	25.93
<i>Hypsoblennius</i> spp.	combtooth blennies	6	21.90
<i>Engraulis mordax</i>	northern anchovy	5	17.34
<i>Lepidogobius lepidus</i>	bay goby	4	14.49
<i>Icelinus quadriseriatus</i>	yellowchin sculpin	4	12.40
<i>Paralichthys californicus</i>	California halibut	3	11.12
larval fish fragment	unidentified larval fishes	2	7.16
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	3.79
Paralichthyidae unid.	sand flounders	1	3.57
larvae, unidentified yolksac	unidentified yolksac larvae	1	3.37
Chitonotus / <i>Icelinus</i>	sculpins	1	3.34
<i>Citharichthys stigmaeus</i>	speckled sanddab	1	3.34
Clupeidae unid.	herrings	1	3.34
Atherinopsidae unid.	silversides	1	2.64
		Total Fishes: 271	
Eggs			
fish eggs unid.	unidentified fish eggs	1,297	4,334.55
Paralichthyidae unid. (eggs)	sand flounder eggs	611	2,063.10
Sciaenidae unid. (eggs)	croaker eggs	420	1,425.92
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	115	409.21
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	42	134.90
Engraulidae unid. (eggs)	anchovy eggs	16	53.91
		Total Eggs: 2,501	
Target Invertebrates			
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	46	133.21
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	20	65.31
Majidae unid. (megalops)	spider crab megalops	5	17.41
Paguridae unid. (megalops)	hermit crab megalops	3	9.76
unidentified crab (megalops)	unidentified crab megalops	1	3.37
		Total Target Invertebrates: 75	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA10
Start Date: 5/15/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	130	429.83
<i>Genyonemus lineatus</i>	white croaker	28	89.20
<i>Lepidogobius lepidus</i>	bay goby	19	62.26
<i>Engraulis mordax</i>	northern anchovy	16	54.36
<i>Acanthogobius flavimanus</i>	yellowfin goby	15	50.50
<i>Hypsoblennius</i> spp.	combtooth blennies	11	36.83
<i>Icelinus</i> spp.	sculpins	9	30.03
larval fish - damaged	unidentified larval fishes	4	14.53
<i>Gobiesox</i> spp.	clingfishes	3	10.13
larval fish fragment	unidentified larval fishes	1	3.49
<i>Gillichthys mirabilis</i>	longjaw mudsucker	1	3.28
Cottidae unid.	sculpins	1	3.10
Sciaenidae unid.	croakers	1	3.10
		Total Fishes: 239	
Eggs			
fish eggs unid.	unidentified fish eggs	269	903.97
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	29	95.32
Engraulidae unid. (eggs)	anchovy eggs	8	25.98
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	2	6.76
		Total Eggs: 308	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	253	832.72
Majidae unid. (megalops)	spider crab megalops	119	400.71
unidentified crab (megalops)	unidentified crab megalops	15	49.14
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	12	38.97
<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops	3	10.32
Grapsidae unid. (megalops)	shore crab megalops	3	9.10
Grapsidae / Canceridae (megalops)	unidentified crab megalops	1	3.59
Paguridae unid. (megalops)	hermit crab megalops	1	3.59
<i>Hemigrapsus oregonensis</i> (megs.)	yellow shore crab megalops	1	3.49
Pinnotheridae (megalops)	pea crab megalops	1	2.91
		Total Target Invertebrates: 409	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA10
Start Date: 5/15/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	276	564.33
<i>Hypsoblennius</i> spp.	combtooth blennies	224	434.26
<i>Genyonemus lineatus</i>	white croaker	201	397.62
<i>Lepidogobius lepidus</i>	bay goby	49	99.19
<i>Engraulis mordax</i>	northern anchovy	31	64.30
<i>Icelinus</i> spp.	sculpins	26	52.38
<i>Gobiesox</i> spp.	clingfishes	10	19.79
larval fish fragment	unidentified larval fishes	6	11.54
<i>Gillichthys mirabilis</i>	longjaw mudsucker	4	7.93
<i>Sebastes</i> spp.	rockfishes	2	4.15
<i>Atherinopsis californiensis</i>	jacksmelt	2	3.92
unidentified fish, damaged	unidentified damaged fish	2	3.83
Bathymasteridae unid.	ronquils	2	3.76
larvae, unidentified yolksac	unidentified yolksac larvae	1	2.16
<i>Ruscarius creaseri</i>	roughcheek sculpin	1	2.16
<i>Typhlogobius californiensis</i>	blind goby	1	2.13
<i>Paralichthys californicus</i>	California halibut	1	2.09
<i>Rhinogobius nicholsi</i>	blackeye goby	1	2.08
<i>Seriphus politus</i>	queenfish	1	2.02
<i>Chitonotus pugetensis</i>	roughback sculpin	1	1.82
Sciaenidae unid.	croakers	1	1.70
		Total Fishes: 843	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	526	1,059.29
unidentified crab (megalops)	unidentified crab megalops	153	311.46
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	56	116.60
Grapsidae unid. (megalops)	shore crab megalops	12	24.15
Paguridae unid. (megalops)	hermit crab megalops	11	22.49
<i>Cancer antennarius</i> (megalops)	brown rock crab megalops	9	18.83
Majidae unid. (megalops)	spider crab megalops	3	5.53
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	2	4.17
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	1	2.23
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	1	1.90
		Total Target Invertebrates: 774	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA10
Start Date: 5/15/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	cometooth blennies	129	633.22
Gobiidae unid.	gobies	47	234.23
<i>Genyonemus lineatus</i>	white croaker	33	180.52
<i>Engraulis mordax</i>	northern anchovy	18	82.19
<i>Rhinogobiops nicholsi</i>	blackeye goby	3	14.73
unidentified fish, damaged	unidentified damaged fish	2	11.93
<i>Gibbonsia</i> spp.	clinid kelpfishes	2	11.39
<i>Lepidogobius lepidus</i>	bay goby	2	10.38
<i>Icelinus</i> spp.	sculpins	2	8.93
<i>Orthonopias triacis</i>	snubnose sculpin	1	6.24
<i>Gillichthys mirabilis</i>	longjaw mudsucker	1	4.68
<i>Paralichthys californicus</i>	California halibut	1	4.68
<i>Seriphus politus</i>	queenfish	1	4.68
Atherinopsidae unid.	silversides	1	4.25
Cottidae unid.	sculpins	1	4.25
larval fish fragment	unidentified larval fishes	1	4.25
<i>Ruscarius creaseri</i>	roughcheek sculpin	1	4.25
		Total Fishes: 246	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	208	1,052.34
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	91	402.23
unidentified crab (megalops)	unidentified crab megalops	58	283.79
Grapsidae unid. (megalops)	shore crab megalops	18	84.36
Paguridae unid. (megalops)	hermit crab megalops	7	31.46
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	5	23.98
<i>Cancer antennarius</i> (megalops)	brown rock crab megalops	3	14.04
		Total Target Invertebrates: 390	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA10
Start Date: 5/15/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	cometooth blennies	205	553.83
<i>Genyonemus lineatus</i>	white croaker	83	185.46
<i>Engraulis mordax</i>	northern anchovy	57	155.26
Gobiidae unid.	gobies	55	140.06
<i>Leuresthes tenuis</i>	California grunion	30	110.80
Engraulidae unid.	anchovies	22	68.21
<i>Gobiesox</i> spp.	clingfishes	13	34.65
<i>Rhinogobiops nicholsi</i>	blackeye goby	10	24.95
larval fish fragment	unidentified larval fishes	9	24.39
<i>Typhlogobius californiensis</i>	blind goby	9	19.54
<i>Lepidogobius lepidus</i>	bay goby	7	16.30
<i>Ruscarius creaseri</i>	roughcheek sculpin	2	6.70
<i>Icelinus</i> spp.	sculpins	2	3.87
<i>Chitonotus pugetensis</i>	roughback sculpin	1	3.83
<i>Clinocottus analis</i>	wooly sculpin	1	3.83
<i>Citharichthys stigmaeus</i>	speckled sanddab	1	3.69
Cottidae unid.	sculpins	1	3.69
Bathymasteridae unid.	ronquils	1	2.39
Atherinopsidae unid.	silversides	1	2.33
<i>Atherinopsis californiensis</i>	jacksmelt	1	2.15
Labrisomidae unid.	labrisomid blennies	1	1.71
<i>Paralichthys californicus</i>	California halibut	1	1.71
unidentified fish, damaged	unidentified damaged fish	1	1.71
		Total Fishes: 514	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	239	582.66
unidentified crab (megalops)	unidentified crab megalops	69	180.96
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	25	58.33
Grapsidae unid. (megalops)	shore crab megalops	10	25.03
Paguridae unid. (megalops)	hermit crab megalops	5	10.51
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	4	9.39
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	3	7.69
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	3	6.87
<i>Cancer antennarius</i> (megalops)	brown rock crab megalops	2	4.49
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	2	4.31
<i>Cancer</i> spp. (megalops)	cancer crabs megalops	1	2.39
		Total Target Invertebrates: 363	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA11
Start Date: 5/30/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	262	767.36
<i>Hypsoblennius</i> spp.	combtooth blennies	25	72.48
Sciaenidae unid.	croakers	17	51.54
<i>Engraulis mordax</i>	northern anchovy	16	47.63
<i>Lepidogobius lepidus</i>	bay goby	16	45.27
<i>Genyonemus lineatus</i>	white croaker	9	30.41
Engraulidae unid.	anchovies	9	26.92
<i>Paralichthys californicus</i>	California halibut	5	15.63
<i>Gillichthys mirabilis</i>	longjaw mudsucker	5	15.34
<i>Seriphus politus</i>	queenfish	3	10.71
larval fish fragment	unidentified larval fishes	3	10.30
larval/post-larval fish unid.	larval fishes	3	9.87
<i>Acanthogobius flavimanus</i>	yellowfin goby	3	7.65
larval fish - damaged	unidentified larval fishes	3	7.38
<i>Pleuronichthys</i> spp.	turbots	2	6.73
<i>Gibbonsia</i> spp.	clinid kelpfishes	2	5.29
<i>Oxyjulis californica</i>	senorita	1	3.40
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	3.32
<i>Semicossyphus pulcher</i>	California sheephead	1	2.88
		Total Fishes: 386	
Eggs			
fish eggs unid.	unidentified fish eggs	293	920.33
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	107	320.61
Engraulidae unid. (eggs)	anchovy eggs	42	130.46
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	4	11.90
		Total Eggs: 446	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	76	229.36
Majidae unid. (megalops)	spider crab megalops	34	104.14
unidentified crab (megalops)	unidentified crab megalops	23	68.09
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	18	45.38
Paguridae unid. (megalops)	hermit crab megalops	2	6.05
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	1	2.41
		Total Target Invertebrates: 154	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA12
Start Date: 6/12/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	360	1,198.79
<i>Hypsoblennius</i> spp.	cometooth blennies	50	169.93
Sciaenidae unid.	croakers	35	113.72
<i>Lepidogobius lepidus</i>	bay goby	23	77.56
<i>Paralabrax</i> spp.	sand bass	16	51.03
<i>Cheilotrema saturnum</i>	black croaker	12	34.56
Engraulidae unid.	anchovies	11	33.37
larvae, unidentified yolksac	unidentified yolksac larvae	9	29.86
<i>Semicossyphus pulcher</i>	California sheephead	7	23.50
larval fish - damaged	unidentified larval fishes	7	22.85
<i>Gobiesox</i> spp.	clingfishes	5	16.53
<i>Seriphus politus</i>	queenfish	5	15.28
<i>Genyonemus lineatus</i>	white croaker	5	14.80
<i>Engraulis mordax</i>	northern anchovy	4	13.52
larval fish fragment	unidentified larval fishes	4	12.20
<i>Oxyjulis californica</i>	senorita	2	6.24
<i>Paralichthys californicus</i>	California halibut	1	4.05
<i>Gillichthys mirabilis</i>	longjaw mudsucker	1	3.60
Pleuronectidae unid.	righteye flounders	1	3.52
<i>Citharichthys sordidus</i>	Pacific sanddab	1	2.72
<i>Pleuronichthys</i> spp.	turbots	1	2.72
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	2.72
		Total Fishes: 561	
Eggs			
fish eggs unid.	unidentified fish eggs	221	722.29
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	209	685.25
Engraulidae unid. (eggs)	anchovy eggs	19	61.27
		Total Eggs: 449	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	37	129.28
Majidae unid. (megalops)	spider crab megalops	19	65.31
unidentified crab (megalops)	unidentified crab megalops	12	36.81
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	5	13.07
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	1	3.31
		Total Target Invertebrates: 74	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA12
Start Date: 6/12/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	cometooth blennies	701	1,343.54
Gobiidae unid.	gobies	214	445.95
Sciaenidae unid.	croakers	75	148.62
<i>Lepidogobius lepidus</i>	bay goby	53	103.37
<i>Seriphus politus</i>	queenfish	52	100.83
larvae, unidentified yolksac	unidentified yolksac larvae	30	61.91
<i>Engraulis mordax</i>	northern anchovy	29	59.87
<i>Cheilotrema saturnum</i>	black croaker	21	40.49
Engraulidae unid.	anchovies	21	39.56
larval fish fragment	unidentified larval fishes	17	35.63
larval fish - damaged	unidentified larval fishes	12	23.62
<i>Semicossyphus pulcher</i>	California sheephead	11	22.37
<i>Paralichthys californicus</i>	California halibut	11	21.07
<i>Genyonemus lineatus</i>	white croaker	8	16.13
<i>Gobiesox</i> spp.	clingfishes	6	11.22
<i>Paralabrax</i> spp.	sand bass	5	10.39
<i>Sphyræna argentea</i>	Pacific barracuda	5	9.17
<i>Roncador stearnsi</i>	spotfin croaker	4	7.53
<i>Icelinus</i> spp.	sculpins	3	6.56
<i>Hypsypops rubicundus</i>	garibaldi	3	5.85
<i>Oxyjulis californica</i>	senorita	3	5.76
Labrisomidae unid.	labrisomid blennies	3	4.83
<i>Ruscarius creaseri</i>	roughcheek sculpin	2	4.24
<i>Peprilus simillimus</i>	Pacific butterflyfish	2	3.52
<i>Umbrina roncador</i>	yellowfin croaker	2	3.52
<i>Artedius lateralis</i>	smoothhead sculpin	1	2.36
<i>Clinocottus analis</i>	wooly sculpin	1	2.36
Pleuronectidae unid.	righteye flounders	1	2.30
Pleuronectiformes unid.	flatfishes	1	2.20
<i>Citharichthys</i> spp.	sanddabs	1	1.96
Cottidae unid.	sculpins	1	1.92
larval/post-larval fish unid.	larval fishes	1	1.92
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	1.92
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	1.76
Atherinopsidae unid.	silversides	1	1.61
Labridae unid.	wrasses	1	1.61
<i>Leuresthes tenuis</i>	California grunion	1	1.61
		Total Fishes: 1,305	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	85	173.87
Majidae unid. (megalops)	spider crab megalops	30	60.29
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	15	29.64
Diogenidae (megalops)	left-handed hermit crabs	3	5.94

(continued)

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA12
Start Date: 6/12/2006
Stations: H1-H3 (continued)

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Target Invertebrates (continued)			
Paguridae unid. (megalops)	hermit crab megalops	3	5.94
Grapsidae unid. (megalops)	shore crab megalops	3	5.67
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	2	4.59
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	1	2.04
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	1	1.80
		Total Target Invertebrates: 143	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA12
Start Date: 6/12/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	cometooth blennies	82	497.47
Gobiidae unid.	gobies	53	328.31
<i>Engraulis mordax</i>	northern anchovy	17	100.47
Sciaenidae unid.	croakers	15	94.32
<i>Seriphus politus</i>	queenfish	10	62.21
Engraulidae unid.	anchovies	8	49.17
larval fish - damaged	unidentified larval fishes	7	43.13
larvae, unidentified yolksac	unidentified yolksac larvae	6	36.47
<i>Oxyjulis californica</i>	senorita	4	24.24
larval fish fragment	unidentified larval fishes	4	23.50
<i>Cheilotrema saturnum</i>	black croaker	3	18.23
Labrisomidae unid.	labrisomid blennies	2	13.01
<i>Clinocottus analis</i>	wooly sculpin	2	12.97
<i>Paralichthys californicus</i>	California halibut	2	12.41
<i>Paralabrax</i> spp.	sand bass	2	11.75
<i>Syngnathus</i> spp.	pipefishes	2	11.75
Paralichthyidae unid.	sand flounders	1	6.52
<i>Artedius lateralis</i>	smoothhead sculpin	1	6.49
<i>Ruscarius creaseri</i>	roughcheek sculpin	1	6.49
<i>Semicossyphus pulcher</i>	California sheephead	1	6.49
<i>Hypsypops rubicundus</i>	garibaldi	1	5.92
Oligocottus / Clinocottus	sculpins	1	5.92
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	5.92
<i>Zaniolepis</i> spp.	combfishes	1	5.92
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	5.87
<i>Lepidogobius lepidus</i>	bay goby	1	5.87
<i>Pleuronichthys verticalis</i>	hornyhead turbot	1	5.87
<i>Sphyraena argentea</i>	Pacific barracuda	1	5.87
		Total Fishes: 231	
Target Invertebrates			
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	14	82.85
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	11	69.67
unidentified crab (megalops)	unidentified crab megalops	9	56.78
Majidae unid. (megalops)	spider crab megalops	6	37.13
Grapsidae unid. (megalops)	shore crab megalops	3	18.89
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	2	12.97
Diogenidae (megalops)	left-handed hermit crabs	1	6.52
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	1	6.49
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	1	5.92
		Total Target Invertebrates: 48	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA12
Start Date: 6/12/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	combtooth blennies	273	789.40
Sciaenidae unid.	croakers	86	251.74
<i>Seriphus politus</i>	queenfish	89	239.33
<i>Engraulis mordax</i>	northern anchovy	56	155.88
Gobiidae unid.	gobies	41	129.67
Engraulidae unid.	anchovies	34	108.12
larvae, unidentified yolksac	unidentified yolksac larvae	35	94.08
<i>Gobiesox</i> spp.	clingfishes	20	67.99
larval fish - damaged	unidentified larval fishes	22	59.30
<i>Genyonemus lineatus</i>	white croaker	25	56.09
larval fish fragment	unidentified larval fishes	19	48.15
<i>Paralichthys californicus</i>	California halibut	17	47.16
<i>Oxyjulis californica</i>	senorita	13	35.96
<i>Rhinogobiops nicholsi</i>	blackeye goby	11	35.61
<i>Semicossyphus pulcher</i>	California sheephead	11	35.53
<i>Sphyræna argentea</i>	Pacific barracuda	11	29.94
<i>Paralabrax</i> spp.	sand bass	11	29.39
Labrisomidae unid.	labrisomid blennies	7	21.21
<i>Pleuronichthys verticalis</i>	hornyhead turbot	7	18.44
<i>Hypsypops rubicundus</i>	garibaldi	6	17.95
<i>Pleuronichthys ritteri</i>	spotted turbot	4	13.75
<i>Lepidogobius lepidus</i>	bay goby	4	11.29
<i>Cheilotrema saturnum</i>	black croaker	3	8.23
<i>Roncador stearnsi</i>	spotfin croaker	3	7.61
Atherinopsidae unid.	silversides	3	6.73
<i>Umbrina roncador</i>	yellowfin croaker	2	6.46
<i>Ruscarius creaseri</i>	roughcheek sculpin	2	5.88
Pleuronectidae unid.	righteye flounders	2	5.64
<i>Zaniolepis frenata</i>	shortspine combfish	2	4.94
<i>Menticirrhus undulatus</i>	California corbina	1	4.01
<i>Syngnathus</i> spp.	pipefishes	1	4.01
<i>Citharichthys sordidus</i>	Pacific sanddab	1	3.86
larval/post-larval fish unid.	larval fishes	1	3.86
<i>Zaniolepis</i> spp.	combfishes	1	3.52
<i>Hypsoblennius jenkinsi</i>	mussel blenny	1	2.94
<i>Citharichthys stigmaeus</i>	speckled sanddab	1	2.24
<i>Halichoeres semicinctus</i>	rock wrasse	1	2.24
<i>Leuresthes tenuis</i>	California grunion	1	2.24
Pleuronectiformes unid.	flatfishes	1	2.24
Pomacentridae unid.	damsel fishes	1	2.24
		Total Fishes: 830	

(continued)

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA12
Start Date: 6/12/2006
Stations: H5-H6 (continued)

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	70	202.42
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	29	80.07
Majidae unid. (megalops)	spider crab megalops	20	54.21
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	5	15.66
Diogenidae (megalops)	left-handed hermit crabs	5	14.40
unidentified crab (megalops)	unidentified crab megalops	4	13.48
Paguridae unid. (megalops)	hermit crab megalops	3	11.73
<i>Petrolisthes</i> spp. (megalops)	porcelain crab megalops	3	8.35
Grapsidae unid. (megalops)	shore crab megalops	3	8.23
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	1	3.86
Porcellanidae unid. (megalops)	porcelain crab megalops	1	3.86
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	1	2.54
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	1	2.24
		Total Target Invertebrates: 146	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA13
Start Date: 6/26/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	157	524.47
<i>Hypsoblennius</i> spp.	combtooth blennies	27	91.31
<i>Lepidogobius lepidus</i>	bay goby	13	43.87
<i>Genyonemus lineatus</i>	white croaker	4	13.24
Engraulidae unid.	anchovies	2	6.73
<i>Artedius harringtoni</i>	scalyhead sculpin	1	3.13
larval fish fragment	unidentified larval fishes	1	3.13
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	2.91
		Total Fishes: 206	
Eggs			
fish eggs unid.	unidentified fish eggs	79	263.49
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	34	113.22
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	3	10.69
Engraulidae unid. (eggs)	anchovy eggs	1	3.13
		Total Eggs: 117	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	18	60.91
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	15	51.95
Majidae unid. (megalops)	spider crab megalops	11	37.53
unidentified crab (megalops)	unidentified crab megalops	5	17.45
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	1	3.60
		Total Target Invertebrates: 50	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA14
Start Date: 7/10/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	63	191.84
<i>Hypsoblennius</i> spp.	combtooth blennies	29	85.70
<i>Lepidogobius lepidus</i>	bay goby	22	65.70
larval fish fragment	unidentified larval fishes	3	9.14
<i>Gobiesox</i> spp.	clingfishes	3	9.04
larval/post-larval fish unid.	larval fishes	1	3.37
<i>Seriphus politus</i>	queenfish	1	2.89
		Total Fishes: 122	
Eggs			
fish eggs unid.	unidentified fish eggs	27	168.68
		Total Eggs: 27	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	27	80.41
unidentified crab (megalops)	unidentified crab megalops	10	30.00
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	9	27.93
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	4	12.27
Brachyura unid. (megalops)	unidentified crab megalops	3	9.47
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	2	6.27
Majidae unid. (megalops)	spider crab megalops	2	5.87
Grapsidae unid. (megalops)	shore crab megalops	1	3.37
		Total Target Invertebrates: 58	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA14
Start Date: 7/10/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	combtooth blennies	173	313.17
Gobiidae unid.	gobies	112	206.53
<i>Lepidogobius lepidus</i>	bay goby	27	48.53
<i>Engraulis mordax</i>	northern anchovy	8	14.33
larval fish fragment	unidentified larval fishes	3	5.23
Sciaenidae unid.	croakers	2	3.55
<i>Syngnathus</i> spp.	pipefishes	1	1.87
<i>Icelinus</i> spp.	sculpins	1	1.77
<i>Gobiesox</i> spp.	clingfishes	1	1.72
		Total Fishes: 328	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	49	86.60
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	20	35.99
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	17	30.32
unidentified crab (megalops)	unidentified crab megalops	12	20.35
Brachyura unid. (megalops)	unidentified crab megalops	2	3.31
Grapsidae unid. (megalops)	shore crab megalops	1	1.77
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	1	1.68
Majidae unid. (megalops)	spider crab megalops	1	1.65
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	1	1.65
		Total Target Invertebrates: 104	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA14
Start Date: 7/10/2006
Stations: H4
Sample Count: 4

Taxon	Common Name	Count	Mean Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	combtooth blennies	31	182.44
Gobiidae unid.	gobies	18	100.32
<i>Gobiesox</i> spp.	clingfishes	2	11.76
<i>Lepidogobius lepidus</i>	bay goby	2	9.57
		Total Fishes: 53	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	7	39.96
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	6	39.79
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	4	24.68
unidentified crab (megalops)	unidentified crab megalops	2	10.66
Brachyura unid. (megalops)	unidentified crab megalops	1	6.63
Grapsidae unid. (megalops)	shore crab megalops	1	6.63
Majidae unid. (megalops)	spider crab megalops	1	5.86
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	1	4.78
		Total Target Invertebrates: 23	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA14
Start Date: 7/10/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	combtooth blennies	130	351.98
Gobiidae unid.	gobies	24	68.70
<i>Lepidogobius lepidus</i>	bay goby	20	47.19
<i>Engraulis mordax</i>	northern anchovy	11	24.28
<i>Gobiesox</i> spp.	clingfishes	5	12.15
Labrisomidae unid.	labrisomid blennies	3	9.61
larval fish - damaged	unidentified larval fishes	3	9.50
<i>Zaniolepis frenata</i>	shortspine combfish	3	7.68
<i>Icelinus</i> spp.	sculpins	2	5.24
Sciaenidae unid.	croakers	2	4.18
Pomacentridae unid.	damsel fishes	1	3.50
larval fish fragment	unidentified larval fishes	1	3.26
<i>Pleuronichthys</i> spp.	turbots	1	2.50
<i>Typhlogobius californiensis</i>	blind goby	1	2.50
<i>Cheilotrema saturnum</i>	black croaker	1	2.09
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	2.09
		Total Fishes: 209	
Target Invertebrates			
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	234	553.29
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	24	69.29
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	16	37.31
unidentified crab (megalops)	unidentified crab megalops	6	17.84
Majidae unid. (megalops)	spider crab megalops	4	12.39
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	5	12.03
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	2	4.59
Grapsidae unid. (megalops)	shore crab megalops	1	2.50
Diogenidae (megalops)	left-handed hermit crabs	1	2.09
Porcellanidae unid. (megalops)	porcelain crab megalops	1	2.09
		Total Target Invertebrates: 294	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA15
Start Date: 7/24/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	combtooth blennies	33	107.50
Gobiidae unid.	gobies	29	100.14
<i>Lepidogobius lepidus</i>	bay goby	10	32.66
Engraulidae unid.	anchovies	1	3.63
larvae, unidentified yolksac	unidentified yolksac larvae	1	3.63
Sciaenidae unid.	croakers	1	3.63
<i>Syngnathus</i> spp.	pipefishes	1	3.63
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	3.38
<i>Cheilotrema saturnum</i>	black croaker	1	3.03
larval fish - damaged	unidentified larval fishes	1	3.03
		Total Fishes: 79	
Eggs			
fish eggs unid.	unidentified fish eggs	22	145.68
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	7	44.47
		Total Eggs: 29	
Target Invertebrates			
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	7	25.51
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	3	10.29
Majidae unid. (megalops)	spider crab megalops	1	3.27
		Total Target Invertebrates: 11	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA16
Start Date: 8/7/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	90	261.40
<i>Lepidogobius lepidus</i>	bay goby	18	51.80
<i>Hypsoblennius</i> spp.	combtooth blennies	8	25.07
<i>Rhinogobiops nicholsi</i>	blackeye goby	2	5.43
<i>Acanthogobius flavimanus</i>	yellowfin goby	1	3.35
larvae, unidentified yolksac	unidentified yolksac larvae	1	3.13
<i>Lythrypnus</i> spp.	gobies	1	2.01
Sciaenidae unid.	croakers	1	2.01
		Total Fishes: 122	
Eggs			
fish eggs unid.	unidentified fish eggs	207	1,024.20
Atherinopsidae unid. (eggs)	silverside eggs	1	7.11
		Total Eggs: 208	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	16	50.00
Majidae unid. (megalops)	spider crab megalops	9	28.38
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	9	25.27
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	7	16.74
		Total Target Invertebrates: 41	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA16
Start Date: 8/7/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	combtooth blennies	128	273.94
Gobiidae unid.	gobies	114	249.19
<i>Lepidogobius lepidus</i>	bay goby	73	148.93
<i>Rhinogobius nicholsi</i>	blackeye goby	5	10.93
larval fish fragment	unidentified larval fishes	4	9.04
<i>Engraulis mordax</i>	northern anchovy	4	8.67
<i>Lythrypnus</i> spp.	gobies	3	7.43
<i>Acanthogobius flavimanus</i>	yellowfin goby	3	6.34
Labrisomidae unid.	labrisomid blennies	2	4.26
larvae, unidentified yolksac	unidentified yolksac larvae	1	2.37
<i>Genyonemus lineatus</i>	white croaker	1	2.21
<i>Icelinus</i> spp.	sculpins	1	2.14
<i>Ilypnus gilberti</i>	cheekspot goby	1	2.12
<i>Gobiesox</i> spp.	clingfishes	1	2.11
<i>Pleuronichthys</i> spp.	turbots	1	1.95
larval/post-larval fish unid.	larval fishes	1	1.80
		Total Fishes: 343	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	43	92.67
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	33	74.73
Majidae unid. (megalops)	spider crab megalops	21	45.66
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	11	24.84
Diogenidae (megalops)	left-handed hermit crabs	1	2.12
		Total Target Invertebrates: 109	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA16
Start Date: 8/7/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	41	256.97
<i>Hypsoblennius</i> spp.	combtooth blennies	35	219.13
<i>Lepidogobius lepidus</i>	bay goby	7	40.99
<i>Rhinogobiops nicholsi</i>	blackeye goby	2	13.29
<i>Pleuronichthys</i> spp.	turbots	2	12.67
<i>Gobiesox</i> spp.	clingfishes	1	6.78
Labrisomidae unid.	labrisomid blennies	1	6.65
<i>Lythrypnus</i> spp.	gobies	1	6.65
Sciaenidae unid.	croakers	1	6.65
<i>Genyonemus lineatus</i>	white croaker	1	6.02
<i>Icelinus</i> spp.	sculpins	1	6.02
<i>Syngnathus leptorhynchus</i>	bay pipefish	1	6.02
Gobiesocidae unid.	clingfishes	1	5.45
		Total Fishes: 95	
Target Invertebrates			
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	11	66.40
Majidae unid. (megalops)	spider crab megalops	10	58.58
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	6	37.50
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	4	23.51
		Total Target Invertebrates: 31	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA16
Start Date: 8/7/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	combtooth blennies	130	387.88
Gobiidae unid.	gobies	48	136.03
<i>Lepidogobius lepidus</i>	bay goby	9	25.30
<i>Gobiesox</i> spp.	clingfishes	5	13.67
<i>Syngnathus</i> spp.	pipefishes	3	10.80
<i>Hypsypops rubicundus</i>	garibaldi	3	8.81
<i>Seriphus politus</i>	queenfish	2	6.00
<i>Lythrypnus</i> spp.	gobies	2	5.56
Paralichthyidae unid.	sand flounders	1	3.41
Engraulidae unid.	anchovies	1	3.00
<i>Pleuronichthys ritteri</i>	spotted turbot	1	3.00
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	2.89
<i>Citharichthys stigmaeus</i>	speckled sanddab	1	2.82
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	2.82
<i>Acanthogobius flavimanus</i>	yellowfin goby	1	2.70
<i>Genyonemus lineatus</i>	white croaker	1	2.70
larval fish fragment	unidentified larval fishes	1	2.70
<i>Paralichthys californicus</i>	California halibut	1	2.70
Sciaenidae unid.	croakers	1	2.70
<i>Hypsoblennius jenkinsi</i>	mussel blenny	1	2.57
Labrisomidae unid.	labrisomid blennies	1	2.52
Pleuronectidae unid.	righteye flounders	1	2.52
		Total Fishes: 216	
Target Invertebrates			
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	30	81.35
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	29	79.69
Majidae unid. (megalops)	spider crab megalops	17	49.27
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	11	31.22
Diogenidae (megalops)	left-handed hermit crabs	2	5.59
		Total Target Invertebrates: 89	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA17
Start Date: 8/21/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	40	128.16
<i>Lepidogobius lepidus</i>	bay goby	23	73.41
<i>Hypsoblennius</i> spp.	combtooth blennies	11	35.09
Labrisomidae unid.	labrisomid blennies	1	3.33
<i>Rhinogobiops nicholsi</i>	blackeye goby	1	3.33
<i>Gobiesox</i> spp.	clingfishes	1	3.05
Sciaenidae unid.	croakers	1	3.05
<i>Lythrypnus zebra</i>	zebra goby	1	2.92
		Total Fishes: 79	
Eggs			
fish eggs unid.	unidentified fish eggs	22	124.28
Paralichthyidae unid. (eggs)	sand flounder eggs	1	6.01
		Total Eggs: 23	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	3	9.71
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	2	6.61
		Total Target Invertebrates: 5	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA18
Start Date: 9/5/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	36	122.67
<i>Hypsoblennius</i> spp.	combtooth blennies	12	42.13
<i>Gobiesox</i> spp.	clingfishes	1	3.79
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	3.51
<i>Pleuronichthys</i> spp.	turbots	1	3.51
		Total Fishes: 51	
Eggs			
fish eggs unid.	unidentified fish eggs	39	267.10
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	2	14.71
Paralichthyidae unid. (eggs)	sand flounder eggs	1	7.56
		Total Eggs: 42	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	11	40.11
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	7	22.12
Majidae unid. (megalops)	spider crab megalops	6	21.32
		Total Target Invertebrates: 24	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA18
Start Date: 9/5/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	133	282.36
<i>Hypsoblennius</i> spp.	combtooth blennies	123	253.69
<i>Lepidogobius lepidus</i>	bay goby	50	104.05
<i>Seriphus politus</i>	queenfish	22	45.56
Engraulidae unid.	anchovies	5	10.27
<i>Pleuronichthys ritteri</i>	spotted turbot	3	5.99
larval fish - damaged	unidentified larval fishes	1	2.34
<i>Roncador stearnsi</i>	spotfin croaker	1	2.34
<i>Artedius lateralis</i>	smoothhead sculpin	1	2.18
<i>Syngnathus</i> spp.	pipefishes	1	2.13
larval fish fragment	unidentified larval fishes	1	2.12
<i>Genyonemus lineatus</i>	white croaker	1	2.00
<i>Gobiesox</i> spp.	clingfishes	1	1.90
		Total Fishes: 343	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	60	120.38
Majidae unid. (megalops)	spider crab megalops	33	69.79
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	18	37.45
Diogenidae (megalops)	left-handed hermit crabs	1	2.13
		Total Target Invertebrates: 112	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA18
Start Date: 9/5/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Hypsoblennius</i> spp.	combtooth blennies	20	153.81
Gobiidae unid.	gobies	4	31.84
<i>Genyonemus lineatus</i>	white croaker	2	19.95
<i>Lepidogobius lepidus</i>	bay goby	2	19.95
<i>Pleuronichthys ritteri</i>	spotted turbot	2	11.94
Paralichthyidae unid.	sand flounders	1	6.40
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	6.40
<i>Pleuronichthys</i> spp.	turbots	1	6.40
<i>Citharichthys sordidus</i>	Pacific sanddab	1	5.92
<i>Paralichthys californicus</i>	California halibut	1	5.92
<i>Syngnathus</i> spp.	pipefishes	1	5.92
		Total Fishes: 36	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	5	39.16
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	2	27.96
Majidae unid. (megalops)	spider crab megalops	1	13.98
		Total Target Invertebrates: 8	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA18
Start Date: 9/5/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	63	218.53
<i>Hypsoblennius</i> spp.	combtooth blennies	52	178.26
<i>Seriphus politus</i>	queenfish	30	102.49
<i>Pleuronichthys ritteri</i>	spotted turbot	16	44.39
<i>Lepidogobius lepidus</i>	bay goby	11	37.78
<i>Genyonemus lineatus</i>	white croaker	7	19.12
Engraulidae unid.	anchovies	5	17.26
Sciaenidae unid.	croakers	2	8.92
<i>Paralichthys californicus</i>	California halibut	3	7.99
<i>Gobiesox</i> spp.	clingfishes	1	6.31
<i>Pleuronichthys</i> spp.	turbots	2	5.74
larval fish - damaged	unidentified larval fishes	2	5.65
<i>Cheilotrema saturnum</i>	black croaker	1	3.48
<i>Menticirrhus undulatus</i>	California corbina	1	2.69
		Total Fishes: 196	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	49	156.86
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	21	100.94
Majidae unid. (megalops)	spider crab megalops	21	75.30
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	9	30.35
<i>Petrolisthes</i> spp. (megalops)	porcelain crab megalops	3	15.67
Diogenidae (megalops)	left-handed hermit crabs	1	3.05
Grapsidae unid. (megalops)	shore crab megalops	1	3.05
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	1	2.69
		Total Target Invertebrates: 106	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA19
Start Date: 9/18/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	57	209.68
<i>Lepidogobius lepidus</i>	bay goby	14	49.88
<i>Hypsoblennius</i> spp.	combtooth blennies	8	28.23
larval fish fragment	unidentified larval fishes	1	3.86
larval fish - damaged	unidentified larval fishes	1	3.67
<i>Lythrypnus zebra</i>	zebra goby	1	3.11
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	2.74
		Total Fishes: 83	
Eggs			
fish eggs unid.	unidentified fish eggs	17	114.89
Paralichthyidae unid. (eggs)	sand flounder eggs	2	13.70
		Total Eggs: 19	
Target Invertebrates			
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	8	26.74
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	5	17.54
Majidae unid. (megalops)	spider crab megalops	2	6.48
Grapsidae unid. (megalops)	shore crab megalops	1	3.38
		Total Target Invertebrates: 16	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA20
Start Date: 10/2/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	275	904.86
<i>Hypsoblennius</i> spp.	combtooth blennies	2	6.28
<i>Lepidogobius lepidus</i>	bay goby	1	3.76
<i>Roncador stearnsi</i>	spotfin croaker	1	3.76
<i>Hypsoblennius gilberti</i>	rockpool blenny	1	3.48
larval fish - damaged	unidentified larval fishes	1	2.64
Sciaenidae unid.	croakers	1	2.64
		Total Fishes: 282	
Eggs			
fish eggs unid.	unidentified fish eggs	5	33.62
<i>Citharichthys</i> spp. (eggs)	sanddab eggs	1	6.33
		Total Eggs: 6	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	34	117.62
Majidae unid. (megalops)	spider crab megalops	9	30.39
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	5	15.71
Grapsidae unid. (megalops)	shore crab megalops	2	6.16
Brachyura unid. (megalops)	unidentified crab megalops	1	3.77
		Total Target Invertebrates: 51	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA21
Start Date: 10/16/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	90	312.39
<i>Hypsoblennius</i> spp.	combtooth blennies	3	9.25
Engraulidae unid.	anchovies	2	7.20
<i>Engraulis mordax</i>	northern anchovy	2	6.84
<i>Citharichthys stigmaeus</i>	speckled sanddab	1	3.48
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	3.45
<i>Gobiesox</i> spp.	clingfishes	1	3.44
<i>Genyonemus lineatus</i>	white croaker	1	3.25
larval fish fragment	unidentified larval fishes	1	3.09
<i>Lepidogobius lepidus</i>	bay goby	1	3.09
		Total Fishes: 103	
Eggs			
fish eggs unid.	unidentified fish eggs	12	78.79
Paralichthyidae unid. (eggs)	sand flounder eggs	2	13.64
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	1	5.91
		Total Eggs: 15	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	70	232.92
Majidae unid. (megalops)	spider crab megalops	15	50.95
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	6	21.90
		Total Target Invertebrates: 91	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA21
Start Date: 10/16/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	77	182.09
<i>Hypsoblennius</i> spp.	combtooth blennies	49	113.02
<i>Genyonemus lineatus</i>	white croaker	11	26.06
<i>Lepidogobius lepidus</i>	bay goby	8	18.45
Paralichthyidae unid.	sand flounders	1	2.33
<i>Seriphus politus</i>	queenfish	1	2.28
Sciaenidae unid.	croakers	1	2.26
<i>Syngnathus</i> spp.	pipefishes	1	2.22
larval fish - damaged	unidentified larval fishes	1	1.83
		Total Fishes: 150	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	128	300.75
Majidae unid. (megalops)	spider crab megalops	38	89.64
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	17	41.54
Grapsidae unid. (megalops)	shore crab megalops	2	4.80
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	1	2.65
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	1	2.22
		Total Target Invertebrates: 187	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA21
Start Date: 10/16/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	35	226.92
<i>Genyonemus lineatus</i>	white croaker	20	136.02
<i>Hypsoblennius</i> spp.	combtooth blennies	10	63.77
larval fish fragment	unidentified larval fishes	3	16.87
<i>Pleuronichthys ritteri</i>	spotted turbot	2	13.92
<i>Lepidogobius lepidus</i>	bay goby	1	7.20
<i>Clinocottus analis</i>	wooly sculpin	1	6.72
larvae, unidentified yolksac	unidentified yolksac larvae	1	6.72
Engraulidae unid.	anchovies	1	5.14
		Total Fishes: 74	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	17	112.82
Majidae unid. (megalops)	spider crab megalops	16	105.75
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	10	61.22
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	2	13.92
		Total Target Invertebrates: 45	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA21
Start Date: 10/16/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	59	182.73
Gobiidae unid.	gobies	43	126.79
<i>Hypsoblennius</i> spp.	combtooth blennies	35	101.92
larvae, unidentified yolksac	unidentified yolksac larvae	24	75.98
Engraulidae unid.	anchovies	17	50.20
<i>Lepidogobius lepidus</i>	bay goby	8	22.69
<i>Paralichthys californicus</i>	California halibut	5	15.64
<i>Pleuronichthys ritteri</i>	spotted turbot	3	8.81
<i>Pleuronichthys guttulatus</i>	diamond turbot	3	8.77
larval fish - damaged	unidentified larval fishes	2	5.89
Paralichthyidae unid.	sand flounders	2	5.81
larval fish fragment	unidentified larval fishes	2	5.56
<i>Citharichthys stigmaeus</i>	speckled sanddab	1	3.66
Pleuronectiformes unid.	flatfishes	1	3.10
<i>Engraulis mordax</i>	northern anchovy	1	3.04
<i>Pleuronichthys verticalis</i>	hornyhead turbot	1	3.04
Sciaenidae unid.	croakers	1	2.85
<i>Seriphus politus</i>	queenfish	1	2.85
unidentified fish, damaged	unidentified damaged fish	1	2.75
		Total Fishes: 210	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	86	245.67
Majidae unid. (megalops)	spider crab megalops	45	129.84
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	11	31.16
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster	2	5.79
Brachyura unid. (megalops)	unidentified crab megalops	2	5.50
Porcellanidae unid. (megalops)	porcelain crab megalops	1	3.66
Paguridae unid. (megalops)	hermit crab megalops	1	2.85
		Total Target Invertebrates: 148	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA22
Start Date: 10/30/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	57	189.98
<i>Genyonemus lineatus</i>	white croaker	5	16.72
<i>Hypsoblennius</i> spp.	combtooth blennies	1	3.68
<i>Lepidogobius lepidus</i>	bay goby	1	3.51
Engraulidae unid.	anchovies	1	3.32
<i>Engraulis mordax</i>	northern anchovy	1	2.95
larval fish fragment	unidentified larval fishes	1	2.95
Sciaenidae unid.	croakers	1	2.95
		Total Fishes: 68	
Eggs			
fish eggs unid.	unidentified fish eggs	12	81.36
Paralichthyidae unid. (eggs)	sand flounder eggs	2	14.56
Engraulidae unid. (eggs)	anchovy eggs	1	7.47
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	1	6.74
		Total Eggs: 16	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	129	449.67
Majidae unid. (megalops)	spider crab megalops	31	105.05
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	5	17.19
Grapsidae unid. (megalops)	shore crab megalops	1	3.57
Paguridae unid. (megalops)	hermit crab megalops	1	3.56
		Total Target Invertebrates: 167	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA23
Start Date: 11/13/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	34	113.64
<i>Genyonemus lineatus</i>	white croaker	12	40.96
larvae, unidentified yolksac	unidentified yolksac larvae	2	6.88
larval fish fragment	unidentified larval fishes	2	6.63
<i>Hypsoblennius</i> spp.	combtooth blennies	2	6.26
Sciaenidae unid.	croakers	1	3.52
Engraulidae unid.	anchovies	1	3.19
<i>Engraulis mordax</i>	northern anchovy	1	3.19
		Total Fishes: 55	
Eggs			
fish eggs unid.	unidentified fish eggs	16	107.58
Paralichthyidae unid. (eggs)	sand flounder eggs	4	24.50
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	2	13.15
Sciaenidae unid. (eggs)	croaker eggs	1	6.98
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	1	6.44
		Total Eggs: 24	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	36	118.46
Majidae unid. (megalops)	spider crab megalops	17	55.94
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	3	10.00
Brachyura unid. (megalops)	unidentified crab megalops	2	6.95
		Total Target Invertebrates: 58	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA23
Start Date: 11/13/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	105	194.57
<i>Genyonemus lineatus</i>	white croaker	76	152.40
<i>Hypsoblennius</i> spp.	combtooth blennies	17	35.16
<i>Lepidogobius lepidus</i>	bay goby	9	16.67
larvae, unidentified yolksac	unidentified yolksac larvae	6	12.15
<i>Engraulis mordax</i>	northern anchovy	6	11.41
<i>Pleuronichthys guttulatus</i>	diamond turbot	5	9.89
Engraulidae unid.	anchovies	3	6.57
larval fish fragment	unidentified larval fishes	3	6.26
<i>Seriphus politus</i>	queenfish	2	4.13
<i>Pleuronichthys</i> spp.	turbots	1	2.25
<i>Gillichthys mirabilis</i>	longjaw mudsucker	1	1.97
<i>Clinocottus analis</i>	wooly sculpin	1	1.84
<i>Citharichthys stigmaeus</i>	speckled sanddab	1	1.78
Sciaenidae unid.	croakers	1	1.55
		Total Fishes: 237	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	111	217.96
Majidae unid. (megalops)	spider crab megalops	40	81.15
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	8	15.58
Brachyura unid. (megalops)	unidentified crab megalops	3	5.65
Grapsidae unid. (megalops)	shore crab megalops	1	1.55
		Total Target Invertebrates: 163	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA23
Start Date: 11/13/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	273	1,625.77
Gobiidae unid.	gobies	100	558.53
larvae, unidentified yolksac	unidentified yolksac larvae	12	68.50
larval fish fragment	unidentified larval fishes	8	49.65
Sciaenidae unid.	croakers	6	37.15
Engraulidae unid.	anchovies	1	6.24
<i>Hypsoblennius</i> spp.	combtooth blennies	1	6.17
larval fish - damaged	unidentified larval fishes	1	6.17
		Total Fishes: 402	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	50	289.75
Majidae unid. (megalops)	spider crab megalops	29	174.13
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	5	26.76
Grapsidae unid. (megalops)	shore crab megalops	2	10.95
		Total Target Invertebrates: 86	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA23
Start Date: 11/13/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	542	1,512.22
larvae, unidentified yolksac	unidentified yolksac larvae	60	171.68
Gobiidae unid.	gobies	47	132.68
<i>Engraulis mordax</i>	northern anchovy	35	99.31
<i>Pleuronichthys guttulatus</i>	diamond turbot	22	63.10
<i>Paralichthys californicus</i>	California halibut	17	48.66
<i>Hypsoblennius</i> spp.	combtooth blennies	12	33.36
<i>Lepidogobius lepidus</i>	bay goby	11	29.25
larval fish fragment	unidentified larval fishes	7	19.76
<i>Citharichthys stigmaeus</i>	speckled sanddab	5	13.69
<i>Pleuronichthys ritteri</i>	spotted turbot	4	11.58
Paralichthyidae unid.	sand flounders	2	5.97
<i>Clinocottus analis</i>	wooly sculpin	2	5.60
Sciaenidae unid.	croakers	2	5.38
Engraulidae unid.	anchovies	1	3.14
<i>Xystreurus liolepis</i>	fantail sole	1	3.14
<i>Pleuronichthys verticalis</i>	hornyhead turbot	1	2.98
<i>Pleuronichthys</i> spp.	turbots	1	2.69
<i>Triphoturus mexicanus</i>	Mexican lampfish	1	2.69
		Total Fishes: 773	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	70	191.62
Majidae unid. (megalops)	spider crab megalops	25	72.95
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	12	34.30
Brachyura unid. (megalops)	unidentified crab megalops	2	5.26
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	1	3.14
Paguridae unid. (megalops)	hermit crab megalops	1	2.63
		Total Target Invertebrates: 111	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA24
Start Date: 11/29/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	38	119.26
<i>Genyonemus lineatus</i>	white croaker	4	12.55
Sciaenidae unid.	croakers	2	6.33
<i>Hypsoblennius</i> spp.	combtooth blennies	2	5.57
larval fish fragment	unidentified larval fishes	1	3.77
<i>Paralichthys californicus</i>	California halibut	1	3.77
<i>Lepidogobius lepidus</i>	bay goby	1	3.67
larval fish - damaged	unidentified larval fishes	1	3.17
<i>Gillichthys mirabilis</i>	longjaw mudsucker	1	2.89
<i>Engraulis mordax</i>	northern anchovy	1	2.86
larvae, unidentified yolksac	unidentified yolksac larvae	1	2.86
Pleuronectidae unid.	righteye flounders	1	2.86
		Total Fishes: 54	
Eggs			
fish eggs unid.	unidentified fish eggs	19	118.35
Paralichthyidae unid. (eggs)	sand flounder eggs	5	26.71
Sciaenidae unid. (eggs)	croaker eggs	4	21.53
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	3	20.67
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	2	13.74
		Total Eggs: 33	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	136	411.98
Majidae unid. (megalops)	spider crab megalops	29	92.35
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	8	23.68
Grapsidae unid. (megalops)	shore crab megalops	4	11.31
Brachyura unid. (megalops)	unidentified crab megalops	1	2.78
		Total Target Invertebrates: 178	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA25
Start Date: 12/11/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	248	816.74
<i>Genyonemus lineatus</i>	white croaker	36	111.05
<i>Engraulis mordax</i>	northern anchovy	13	44.24
larvae, unidentified yolksac	unidentified yolksac larvae	3	9.33
<i>Hypsoblennius</i> spp.	combtooth blennies	1	3.05
Sciaenidae unid.	croakers	1	3.05
<i>Seriphus politus</i>	queenfish	1	3.05
<i>Gibbonsia</i> spp.	clinid kelpfishes	1	3.04
<i>Gillichthys mirabilis</i>	longjaw mudsucker	1	2.56
		Total Fishes: 305	
Eggs			
fish eggs unid.	unidentified fish eggs	79	517.41
Sciaenidae unid. (eggs)	croaker eggs	31	194.43
Sciaen. / Paralich. / Labridae (eggs)	fish eggs	3	20.64
<i>Pleuronichthys</i> spp. (eggs)	turbot eggs	3	18.98
Paralichthyidae unid. (eggs)	sand flounder eggs	2	14.11
		Total Eggs: 118	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	145	462.71
Majidae unid. (megalops)	spider crab megalops	27	83.62
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	15	46.96
Paguridae unid. (megalops)	hermit crab megalops	1	2.56
		Total Target Invertebrates: 188	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA25
Start Date: 12/11/2006
Stations: H1-H3

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	197	348.46
Gobiidae unid.	gobies	154	279.52
<i>Engraulis mordax</i>	northern anchovy	27	50.15
<i>Lepidogobius lepidus</i>	bay goby	14	26.93
larvae, unidentified yolksac	unidentified yolksac larvae	8	14.65
larval fish fragment	unidentified larval fishes	4	7.05
<i>Hypsoblennius</i> spp.	combtooth blennies	3	6.19
<i>Paralichthys californicus</i>	California halibut	3	4.96
larval fish - damaged	unidentified larval fishes	2	3.63
<i>Pleuronichthys ritteri</i>	spotted turbot	1	1.80
<i>Citharichthys stigmaeus</i>	speckled sanddab	1	1.72
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	1.46
		Total Fishes: 415	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	243	444.14
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	44	78.78
Majidae unid. (megalops)	spider crab megalops	23	42.16
Pinnotheridae (megalops)	pea crab megalops	18	33.30
Brachyura unid. (megalops)	unidentified crab megalops	7	12.35
<i>Cancer anthonyi</i> (megalops)	yellow crab megalops	2	3.39
Grapsidae unid. (megalops)	shore crab megalops	1	2.42
		Total Target Invertebrates: 338	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA25
Start Date: 12/11/2006
Stations: H4

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	149	752.62
Gobiidae unid.	gobies	49	244.49
<i>Engraulis mordax</i>	northern anchovy	5	26.79
larvae, unidentified yolksac	unidentified yolksac larvae	5	23.99
<i>Paralichthys californicus</i>	California halibut	3	13.91
larval fish - damaged	unidentified larval fishes	1	4.84
<i>Pleuronichthys guttulatus</i>	diamond turbot	1	4.84
<i>Clinocottus analis</i>	wooly sculpin	1	4.64
Engraulidae unid.	anchovies	1	4.64
		Total Fishes: 215	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	142	707.01
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	15	72.16
Majidae unid. (megalops)	spider crab megalops	11	58.90
Grapsidae unid. (megalops)	shore crab megalops	5	25.52
Pinnotheridae (megalops)	pea crab megalops	2	9.47
		Total Target Invertebrates: 175	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA25
Start Date: 12/11/2006
Stations: H5-H6

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
<i>Genyonemus lineatus</i>	white croaker	340	935.02
Gobiidae unid.	gobies	59	166.88
<i>Engraulis mordax</i>	northern anchovy	11	31.86
larvae, unidentified yolksac	unidentified yolksac larvae	9	27.55
<i>Paralichthys californicus</i>	California halibut	6	16.85
<i>Hypsoblennius</i> spp.	combtooth blennies	5	14.11
<i>Pleuronichthys guttulatus</i>	diamond turbot	4	9.93
<i>Lepidogobius lepidus</i>	bay goby	3	8.45
larval fish - damaged	unidentified larval fishes	3	8.32
larval fish fragment	unidentified larval fishes	2	5.83
<i>Citharichthys stigmaeus</i>	speckled sanddab	1	3.35
<i>Ruscarius creaseri</i>	roughcheek sculpin	1	3.13
Atherinopsidae unid.	silversides	1	2.91
<i>Pleuronichthys ritteri</i>	spotted turbot	1	2.82
<i>Seriphus politus</i>	queenfish	1	2.05
		Total Fishes: 447	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	125	352.15
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	31	79.30
Majidae unid. (megalops)	spider crab megalops	18	54.02
Brachyura unid. (megalops)	unidentified crab megalops	11	33.88
Pinnotheridae (megalops)	pea crab megalops	3	7.11
		Total Target Invertebrates: 188	

Harbor Generating Station
Entrainment Study - Fish and Invertebrate Abundances

Survey: HGSEA26
Start Date: 12/26/2006
Stations: E1

Taxon	Common Name	Count	Mean Concentration (#/1,000m ³)
Fishes			
Gobiidae unid.	gobies	111	480.84
<i>Genyonemus lineatus</i>	white croaker	4	17.10
<i>Lepidogobius lepidus</i>	bay goby	3	13.52
<i>Engraulis mordax</i>	northern anchovy	2	9.25
Sciaenidae unid.	croakers	2	8.87
<i>Typhlogobius californiensis</i>	blind goby	1	4.98
		Total Fishes: 123	
Eggs			
fish eggs unid.	unidentified fish eggs	13	113.01
Paralichthyidae unid. (eggs)	sand flounder eggs	4	31.97
		Total Eggs: 17	
Target Invertebrates			
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	7	29.14
Majidae unid. (megalops)	spider crab megalops	2	8.94
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	2	8.94
		Total Target Invertebrates: 11	

Appendix D2. Calculated Annual Entrainment and Standard Error Data

Table D2-1. Calculated total annual entrainment and standard error of larval fish and eggs at HGS in 2006 based on actual and design cooling water intake flow volumes.

Taxon	Common Name	Calculated Annual Entrainment (Actual Flows)	Standard Error	Calculated Annual Entrainment (Design Flows)	Standard Error
Larval Fish					
Gobiidae unid.	gobies	33,290,815	869,904	75,938,007	1,933,837
<i>Acanthogobius flavimanus</i>	yellowfin goby	15,407,999	1,744,298	37,604,336	4,325,986
<i>Genyonemus lineatus</i>	white croaker	7,164,843	154,612	18,777,752	401,199
<i>Lepidogobius lepidus</i>	bay goby	2,376,260	66,436	5,070,071	138,207
<i>Hypsoblennius</i> spp.	combtooth blennies	2,255,907	55,768	4,362,576	100,491
Sciaenidae unid.	croakers	995,438	43,751	2,856,932	173,898
Engraulidae unid.	anchovies	940,784	54,597	2,068,979	105,000
unidentified fish, damaged	unidentified damaged fish	646,175	25,303	1,571,226	58,358
larvae, unidentified yolksac	unidentified yolksac larvae	288,308	22,120	679,015	48,803
<i>Gillichthys mirabilis</i>	longjaw mudsucker	254,865	12,241	558,887	27,666
Gobiesocidae unid.	clingfishes	236,654	16,157	515,917	35,120
<i>Icelinus</i> spp.	sculpins	190,484	16,231	446,021	33,925
<i>Paralichthys californicus</i>	California halibut	165,782	10,324	424,529	24,336
<i>Paralabrax</i> spp.	sand bass	122,010	26,030	271,192	56,085
<i>Cheilotrema saturnum</i>	black croaker	94,525	16,173	200,992	34,434
<i>Seriphus politus</i>	queenfish	83,731	7,804	176,487	15,642
<i>Gibbonsia</i> spp.	clinid kelpfishes	77,308	7,719	173,122	17,783
<i>Rhinogobiops nicholsi</i>	blackeye goby	71,631	6,642	145,314	12,681
<i>Leptocottus armatus</i>	Pacific staghorn sculpin	68,768	6,698	160,195	15,742
<i>Semicossyphus pulcher</i>	California sheephead	64,438	6,322	141,346	13,412
larval/post-larval fish unid.	larval fishes	58,152	6,794	119,578	13,236
<i>Clinocottus</i> spp.	sculpins	55,826	6,271	112,731	12,202
<i>Citharichthys</i> spp.	sanddabs	41,222	5,876	115,405	15,092
<i>Pleuronichthys</i> spp.	turbots	36,951	4,803	73,078	9,001
<i>Pleuronichthys guttulatus</i>	diamond turbot	36,799	4,992	93,021	11,151

(table continued)

Table D2-1 (continued). Calculated total annual entrainment and standard error of larval fish and eggs at HGS in 2006 based on actual and design cooling water intake flow volumes.

Taxon	Common Name	Calculated Annual		Calculated Annual	
		Entrainment (Actual Flows)	Standard Error	Entrainment (Design Flows)	Standard Error
Labrisomidae unid.	labrisomid blennies	29,483	5,990	71,609	14,662
<i>Oxyjulis californica</i>	senorita	24,673	3,716	52,620	7,495
Pleuronectidae unid.	righteye flounders	23,120	3,732	52,521	8,234
<i>Ruscarius creaseri</i>	roughcheek sculpin	20,616	4,081	50,242	9,975
Pleuronectiformes unid.	flatfishes	16,347	2,475	40,493	6,128
Cottidae unid.	sculpins	15,756	3,158	31,607	6,023
<i>Lythrypnus zebra</i>	zebra goby	14,795	2,839	34,416	6,507
<i>Syngnathus</i> spp.	pipefishes	14,250	3,935	20,766	5,550
<i>Orthonopias triacis</i>	snubnose sculpin	13,806	2,341	32,367	5,428
<i>Sardinops sagax</i>	Pacific sardine	11,836	1,898	29,933	4,789
Artedius spp.	sculpins	10,653	2,986	17,916	4,788
<i>Typhlogobius californiensis</i>	blind goby	10,523	2,919	26,455	7,337
Clupeidae unid.	herrings	8,864	2,121	36,966	6,990
<i>Roncador stearnsi</i>	spotfin croaker	8,735	2,336	21,531	5,754
<i>Pleuronichthys verticalis</i>	hornyhead turbot	8,693	2,398	19,596	5,237
<i>Merluccius productus</i>	Pacific hake	8,421	2,362	19,741	5,475
<i>Girella nigricans</i>	opaleye	7,894	2,114	19,963	5,335
Bathylagidae unid.	blacksmelt	6,622	1,827	14,928	3,990
<i>Lythrypnus</i> spp.	gobies	6,249	1,733	11,481	3,069
Bathymasteridae unid.	ronquils	5,843	1,621	14,511	4,025
Paralichthyidae unid.	sand flounders	1,926	1,024	20,449	5,465
<i>Chitonotus / Icelinus</i>	sculpins	1,798	957	19,097	5,104
Atherinopsidae unid.	silversides	1,422	756	15,096	4,035
Total Larval Fish		65,297,999		153,331,011	
Fish Eggs					
fish eggs unid.	unidentified fish eggs	49,261,253	2,104,741	130,894,994	5,066,941
<i>Genyonemus lineatus</i>	white croaker eggs	17,867,461	901,215	43,114,182	2,226,295
Sciaenidae unid.	croaker eggs	14,562,519	607,258	41,351,239	1,519,856

(table continued)

Table D2-1 (continued). Calculated total annual entrainment and standard error of larval fish and eggs at HGS in 2006 based on actual and design cooling water intake flow volumes.

Taxon	Common Name	Calculated Annual		Calculated Annual	
		Entrainment (Actual Flows)	Standard Error	Entrainment (Design Flows)	Standard Error
Fish Eggs					
Paralichthyidae unid.	sand flounder eggs	8,780,223	214,000	30,684,631	563,025
Sciaenidae/Paralichthyidae/Labridae	SPL fish eggs	5,208,682	159,806	11,085,521	362,938
<i>Citharichthys</i> spp.	sanddab eggs	1,499,868	124,838	5,319,639	589,511
<i>Pleuronichthys</i> spp.	turbot eggs	1,018,933	29,538	2,987,271	72,517
<i>Paralichthys californicus</i>	California halibut eggs	860,518	39,298	2,013,440	92,977
Engraulidae unid.	anchovy eggs	803,290	23,311	1,932,617	58,079
Atherinopsidae unid.	silverside eggs	22,147	6,143	40,690	10,875
Total Fish Eggs		99,884,894		269,424,225	

Table D2-2. Calculated total annual entrainment and standard error of target shellfishes at HGS in 2006 based on actual and design cooling water intake flow volumes.

Taxon	Common Name	Calculated Annual		Calculated Annual	
		Entrainment (Actual Flows)	Standard Error	Entrainment (Design Flows)	Standard Error
Target Invertebrates					
<i>Pugettia</i> spp. (megalops)	kelp crabs megalops	12,009,598	285,695	26,357,647	608,953
Majidae unid. (megalops)	spider crab megalops	3,520,320	149,419	7,285,587	275,123
<i>Pinnixa</i> spp. (megalops)	pea crabs megalops	1,810,300	106,592	4,467,908	287,416
unidentified crab (megalops)	unidentified crab megalops	727,346	40,778	1,480,727	75,784
Grapsidae unid. (megalops)	shore crab megalops	241,523	12,455	526,881	26,937
<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster (larval)	217,477	16,512	360,853	25,703
Paguridae unid. (megalops)	hermit crab megalops	165,787	12,935	422,270	31,713
Brachyura unid. (megalops)	unidentified crab megalops	64,917	7,928	134,388	15,948
<i>Pinnotheres</i> spp. (megalops)	pea crab megalops	38,804	4,466	84,172	9,695
<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops	27,081	4,549	51,987	8,228
<i>Loligo opalescens</i>	market squid	26,676	4,612	62,179	10,354
<i>Cancer</i> spp. (megalops)	cancer crabs megalops	15,625	2,506	35,225	5,474
Grapsidae / Cancridae (megalops)	unidentified crab megalops	12,015	3,213	21,990	5,678
Pinnotheridae (megalops)	pea crab megalops	9,749	2,607	17,843	4,607
Diogenidae (megalops)	left-handed hermit crabs megalops	7,894	2,114	19,963	5,335
<i>Pachygrapsus crassipes</i> (megalops)	striped shore crab megalops	6,224	1,727	15,456	4,287
Total		18,901,336		41,345,075	