

*Harbor Generating Station*

## **Appendix E**

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### **Master Species List**

E1. Entrainment Master Species List

E2. Impingement Master Species List – Invertebrates

E3. Impingement Master Species List - Fishes

## Appendix E1

### Master Species List of organisms identified in the entrainment samples.

Group	Taxon	Common Name
<b>Cephalopoda</b>	<i>Loligo opalescens</i>	market squid
<b>Decapoda</b>	unidentified crab (megalops)	unid. crab megalops
<b>Palinuridae</b>	<i>Panulirus interruptus</i> (phyllosome)	California spiny lobster (larval)
<b>Paguridae</b>	Paguridae unid. (megalops)	hermit crab megalops
<b>Porcellanidae</b>	<i>Pachycheles pubescens</i> (megalops)	pubescent porcelain crab megalops
	<i>Pachycheles rudis</i> (megalops)	thickclaw porcelain crab megalops
	<i>Petrolisthes cinctipes</i> (megalops)	flat porcelain crab megalops
	<i>Petrolisthes eriomerus</i> (megalops)	flattop crab megalops
	<i>Petrolisthes</i> spp. (megalops)	porcelain crab megalops
	Porcellanidae unid. (megalops)	porcelain crab megalops
<b>Diogenidae</b>	Diogenidae (megalops)	left-handed hermit crabs megalops
<b>Brachyura</b>	Brachyura unid. (megalops)	unidentified crab megalops
	Grapsidae / Cancridae (megalops)	unidentified crab megalops
<b>Majidae</b>	Majidae unid. (megalops)	spider crab megalops
	<i>Pugettia</i> spp. (megalops)	kelp crabs megalops
<b>Cancridae</b>	<i>Cancer antennarius</i> (megalops)	brown rock crab megalops
	<i>Cancer anthonyi</i> (megalops)	yellow crab megalops
	<i>Cancer gracilis</i> (megalops)	slender crab megalops
	<i>Cancer productus</i> (megalops)	red rock crab megalops
	<i>Cancer</i> spp. (megalops)	cancer crabs megalops
<b>Xanthidae</b>	<i>Lophopanopeus</i> spp. (megalops)	black-clawed crab megalops
<b>Pinnotheridae</b>	<i>Pinnixa</i> spp. (megalops)	pea crabs megalops
	<i>Pinnotheres</i> spp. (megalops)	pea crab megalops
	Pinnotheridae (megalops)	pea crab megalops
<b>Grapsidae</b>	Grapsidae unid. (megalops)	shore crab megalops
	<i>Hemigrapsus nudus</i> (megalops)	purple shore crab megalops
	<i>Hemigrapsus oregonensis</i> (megalops)	yellow shore crab megalops
	<i>Hemigrapsus</i> spp. (megalops)	shore crab megalops
	<i>Pachygrapsus crassipes</i> (megalops)	striped shore crab megalops
<b>Actinopterygii</b>	fish eggs unid.	unidentified fish eggs
	larvae, unidentified yolksac	unidentified yolksac larvae
	larval fish - damaged	unidentified larval fishes
	larval fish fragment	unidentified larval fishes
	larval/post-larval fish unid.	larval fishes
unidentified fish, damaged	unidentified damaged fish	
<b>Acanthopterygii</b>	Sciaenidae / Paralichthyidae / Labridae (eggs)	fish eggs

(table continued)

Appendix E1 (continued). Master Species List of organisms identified in the entrainment samples.

Group	Taxon	Common Name
<b>Clupeidae</b>	Clupeidae unid.	herrings
	<i>Sardinops sagax</i>	Pacific sardine
<b>Engraulidae</b>	Engraulidae unid.	anchovies
	Engraulidae unid. (eggs)	anchovy eggs
<b>Bathylagidae</b>	<i>Engraulis mordax</i>	northern anchovy
	<i>Bathylagus ochotensis</i>	popeye blacksmelt
	<i>Leuroglossus</i> spp.	smoothtongues
<b>Myctophidae</b>	<i>Leuroglossus stilbius</i>	California smoothtongue
	<i>Diaphus theta</i>	California headlight fish
	Myctophidae unid.	lanternfishes
<b>Gobiesocidae</b>	<i>Stenobranchius leucopsarus</i>	northern lampfish
	<i>Triphoturus mexicanus</i>	Mexican lampfish
	Gobiesocidae unid.	clingfishes
<b>Gobiesocidae</b>	<i>Gobiesox</i> spp.	clingfishes
<b>Merlucciidae</b>	<i>Merluccius productus</i>	Pacific hake
<b>Atherinopsidae</b>	<i>Atherinops affinis</i>	topsmelt
	Atherinopsidae unid.	silversides
	Atherinopsidae unid. (eggs)	silverside eggs
	<i>Atherinopsis californiensis</i>	jacksmelt
<b>Syngnathidae</b>	<i>Leuresthes tenuis</i>	California grunion
	<i>Syngnathus leptorhynchus</i>	bay pipefish
	<i>Syngnathus</i> spp.	pipefishes
<b>Scorpaenidae</b>	<i>Sebastes</i> spp.	rockfishes
<b>Hexagrammidae</b>	Hexagrammidae unid.	greenlings
	<i>Oxylebius pictus</i>	painted greenling
	<i>Zaniolepis frenata</i>	shortspine combfish
	<i>Zaniolepis</i> spp.	combfishes
	<i>Artedius harringtoni</i>	scalyhead sculpin
	<i>Artedius lateralis</i>	smoothhead sculpin
<b>Cottidae</b>	Chitonotus / Icelinus	sculpins
	Chitonotus pugetensis	roughback sculpin
	<i>Clinocottus analis</i>	wooly sculpin
	Cottidae unid.	sculpins
	<i>Icelinus quadriseriatus</i>	yellowchin sculpin
	<i>Icelinus</i> spp.	sculpins
	<i>Leptocottus armatus</i>	Pacific staghorn sculpin
	Oligocottus / Clinocottus	sculpins
	<i>Oligocottus</i> spp.	sculpins
	<i>Orthonopias triacis</i>	snubnose sculpin
	<i>Ruscarius creaseri</i>	roughcheek sculpin
	<i>Scorpaenichthys marmoratus</i>	cabezon
	<b>Scorpaenidae</b>	<i>Sebastes</i> spp.

(table continued)

Appendix E1 (continued). Master Species List of organisms identified in the entrainment samples.

Group	Taxon	Common Name
<b>Serranidae</b>	<i>Paralabrax</i> spp.	sand bass
<b>Sciaenidae</b>	<i>Cheilotrema saturnum</i>	black croaker
	<i>Genyonemus lineatus</i>	white croaker
	<i>Genyonemus lineatus</i> (eggs)	white croaker eggs
	<i>Menticirrhus undulatus</i>	California corbina
	<i>Roncador stearnsii</i>	spotfin croaker
	Sciaenidae unid.	croakers
	Sciaenidae unid. (eggs)	croaker eggs
	<i>Seriphus politus</i>	queenfish
	<i>Umbrina roncador</i>	yellowfin croaker
<b>Kyphosidae</b>	<i>Girella nigricans</i>	opaleye
<b>Pomacentridae</b>	<i>Hypsypops rubicundus</i>	garibaldi
	Pomacentridae unid.	damselishes
<b>Sphyraenidae</b>	<i>Sphyraena argentea</i>	Pacific barracuda
<b>Labridae</b>	<i>Halichoeres semicinctus</i>	rock wrasse
	Labridae unid.	wrasses
	<i>Oxyjulis californica</i>	senorita
	<i>Semicossyphus pulcher</i>	California sheephead
<b>Bathymasteridae</b>	Bathymasteridae unid.	ronquils
<b>Blenniidae</b>	<i>Hypsoblennius gilberti</i>	rockpool blenny
	<i>Hypsoblennius jenkinsi</i>	mussel blenny
	<i>Hypsoblennius</i> spp.	combtooth blennies
<b>Clinidae</b>	<i>Gibbonsia</i> spp.	clinid kelpfishes
	<i>Paraclinus</i> spp.	clinid
<b>Chaenopsidae</b>	Chaenopsidae unid.	tube blennies
<b>Stichaeidae</b>	Stichaeidae unid.	pricklebacks
<b>Labrisomidae</b>	Labrisomidae unid.	labrisomid blennies
<b>Gobiidae</b>	<i>Acanthogobius flavimanus</i>	yellowfin goby
	<i>Gillichthys mirabilis</i>	longjaw mudsucker
	Gobiidae unid.	gobies
	<i>Ilypnus gilberti</i>	cheekspot goby
	<i>Lepidogobius lepidus</i>	bay goby
	<i>Lythrypnus</i> spp.	gobies
	<i>Lythrypnus zebra</i>	zebra goby
	<i>Rhinogobiops nicholsii</i>	blackeye goby
	<i>Typhlogobius californiensis</i>	blind goby
<b>Stromateidae</b>	<i>Peprilus simillimus</i>	Pacific butterfish
<b>Pleuronectiformes</b>	Pleuronectiformes unid.	flatfishes
<b>Pleuronectidae</b>	<i>Isopsetta isolepis</i>	butter sole
	<i>Lyopsetta exilis</i>	slender sole
	<i>Parophrys vetulus</i>	English sole
	Pleuronectidae unid.	righteye flounders

(table continued)

Appendix E1 (continued). Master Species List of organisms identified in the entrainment samples.

Group	Taxon	Common Name
<b>Pleuronectidae</b>	<i>Pleuronichthys guttulatus</i>	diamond turbot
	<i>Pleuronichthys ritteri</i>	spotted turbot
	<i>Pleuronichthys</i> spp.	turbots
	<i>Pleuronichthys</i> spp. (eggs)	turbot eggs
	<i>Pleuronichthys verticalis</i>	hornyhead turbot
<b>Paralichthyidae</b>	<i>Citharichthys sordidus</i>	Pacific sanddab
	<i>Citharichthys</i> spp.	sanddabs
	<i>Citharichthys</i> spp. (eggs)	sanddab eggs
	<i>Citharichthys stigmaeus</i>	speckled sanddab
	Paralichthyidae unid.	sand flounders
	Paralichthyidae unid. (eggs)	sand flounder eggs
	<i>Paralichthys californicus</i>	California halibut
	<i>Paralichthys californicus</i> (eggs)	California halibut eggs
<i>Xystreureys liolepis</i>	fantail sole	

## Appendix E2

### Master Species List of Invertebrates Identified in Impingement Samples

Group	Taxon	Common Name
<b>Cnidaria</b>	Cnidaria	sea jelly, unid.
<b>Polyorchidae</b>	<i>Scrippsia pacifica</i>	giant bell jelly
<b>Ulmaridae</b>	<i>Aurelia aurita</i>	moon jelly
<b>Ctenophora</b>	Ctenonophora	comb jelly, unid.
<b>Gastropoda</b>	Gastropoda	gastropod, unid.
<b>Aplysiidae</b>	<i>Aplysia californica</i>	California seahare
	<i>Aplysia</i> spp.	seahare, unid.
<b>Aglaejidae</b>	<i>Navanax inermis</i>	California aglaja
<b>Pleurobranchidae</b>	<i>Pleurobranchaea californica</i>	California sea slug
<b>Archidorididae</b>	<i>Archidoris montereyensis</i>	Monterey sea-lemon
<b>Discodorididae</b>	<i>Anisodoris nobilis</i>	Pacific sea-lemon
	<i>Diaulula sandiegensis</i>	ring-spotted dorid
	Discodorididae	nudibranch, unid.
<b>Polyceratidae</b>	<i>Triopha maculata</i>	spotted triopha
<b>Polyceridae</b>	<i>Polycera atra</i>	orange-spike polycera
	<i>Polycera hedgpethi</i>	Hedgpeth's polycera
<b>Dendronotidae</b>	<i>Dendronotus frondosus</i>	leafy dendronotid
	<i>Dendronotus iris</i>	giant-frond-aeolis
<b>Dironidae</b>	<i>Dirona picta</i>	spotted dirona
<b>Flabellinidae</b>	<i>Flabellina trilineata</i>	threeline aeolis
<b>Tergipedidae</b>	<i>Cuthona lagunae</i>	orange-faced nudibranch
<b>Facelinidae</b>	<i>Hermisenda crassicornis</i>	hermissenda
<b>Pectinidae</b>	<i>Leptopecten</i> spp.	scallop, unid.
<b>Octopodidae</b>	<i>Octopus bimaculatus/bimaculoides</i>	California two-spot octopus
<b>Pycnogonida</b>	Pycnogonida	sea spider, unid.
<b>Ammonotheidae</b>	<i>Ammonothea hilgendorfi</i>	sea spider
<b>Penaeidae</b>	<i>Farfantepenaeus californiensis</i>	yellowleg shrimp
<b>Pandalidae</b>	<i>Pandalus danae</i>	dock shrimp
	<i>Pandalus stenolepis</i>	roughpatch shrimp
<b>Hippolytidae</b>	<i>Heptacarpus palpator</i>	intertidal coastal shrimp
	<i>Heptacarpus paludicola</i>	California coastal shrimp
	<i>Heptacarpus</i> spp.	coastal shrimp, unid.
	<i>Heptacarpus stimpsoni</i>	Stimpson coastal shrimp
	<i>Lysmata californica</i>	red rock shrimp
<b>Crangonidae</b>	<i>Crangon nigromaculata</i>	blackspotted bay shrimp
<b>Palinuridae</b>	<i>Panulirus interruptus</i>	California spiny lobster
<b>Majidae</b>	<i>Pyromaia tuberculata</i>	tuberculate pear crab

(table continued)

**Appendix E1** (continued). Master Species List of invertebrates identified in the impingement samples.

<b>Group</b>	<b>Taxon</b>	<b>Common Name</b>
<b>Canceridae</b>	<i>Cancer antennarius</i>	Pacific rock crab
	<i>Cancer anthonyi</i>	yellow crab
<b>Portunidae</b>	<i>Portunus xantusii</i>	Xantus swimming crab
<b>Grapsidae</b>	<i>Hemigrapsus oregonensis</i>	yellow shore crab
<b>Pinnotheridae</b>	<i>Pinnixa</i> spp.	pea crab, unid.
<b>Asteriidae</b>	<i>Pisaster</i> spp.	sea star, unid.
<b>Holothuroidea</b>	Holothuroidea	sea cucumber, unid.
<b>Stichopodidae</b>	<i>Parastichopus californicus</i>	California sea cucumber
	<i>Parastichopus parvimensis</i>	warty sea cucumber
	<i>Parastichopus</i> spp.	sea cucumber, unid.
<b>Molpadiidae</b>	<i>Molpadia muscosa</i>	mossy chiton

## Appendix E3

### Master Species List of fishes identified in the impingement samples.

Group	Taxon	Common Name
(Chondrichthyes)		cartilaginous fishes
<b>Urolophidae</b>	<i>Urobatis halleri</i>	round stingray
(Actinopterygii)		ray-finned fishes
<b>Engraulidae</b>	<i>Engraulis mordax</i>	northern anchovy
<b>Batrachoididae</b>	<i>Porichthys myriaster</i>	specklefin midshipman
	<i>Porichthys notatus</i>	plainfin midshipman
<b>Atherinopsidae</b>	<i>Atherinops affinis</i>	topsmelt
<b>Syngnathidae</b>	<i>Syngnathus leptorhynchus</i>	bay pipefish
<b>Cottidae</b>	<i>Icelinus quadriseriatus</i>	yellowchin sculpin
	<i>Leptocottus armatus</i>	Pacific staghorn sculpin
<b>Serranidae</b>	<i>Paralabrax maculatofasciatus</i>	spotted sand bass
	<i>Paralabrax nebulifer</i>	barred sand bass
<b>Sciaenidae</b>	<i>Genyonemus lineatus</i>	white croaker
<b>Embiotocidae</b>	<i>Cymatogaster aggregata</i>	shiner perch
	<i>Embiotoca jacksoni</i>	black perch
	Embiotocidae	surfperch, unid.
	<i>Hyperprosopon argenteum</i>	walleye surfperch
	<i>Phanerodon furcatus</i>	white seaperch
	<i>Rhacochilus vacca</i>	pile perch
<b>Clinidae</b>	<i>Gibbonsia elegans</i>	spotted kelpfish
	<i>Heterostichus rostratus</i>	giant kelpfish
<b>Gobiesocidae</b>	<i>Gobiesox rhesodon</i>	California clingfish
<b>Gobiidae</b>	<i>Acanthogobius flavimanus</i>	yellowfin goby
	<i>Gillichthys mirabilis</i>	longjaw mudsucker
	<i>Tridentiger trigonocephalus</i>	chameleon goby
<b>Paralichthyidae</b>	<i>Paralichthys californicus</i>	California halibut
<b>Pleuronectidae</b>	<i>Pleuronichthys verticalis</i>	hornyhead turbot