

APPENDIX C

SQO Criteria Summary Tables

Table C-1. Characterization and Benthic Response Index (BRI) Ranges for Response Levels of Benthic Community Conditions

BRI Threshold	Category	Characterization	Definition
< 39.96	Category 1	Reference	Undisturbed
≥ 39.96 to < 49.14	Category 2	Low disturbance	> 5% of reference species lost
≥ 49.15 to < 73.27	Category 3	Moderate disturbance	> 25% of reference species lost
≥ 73.27	Category 4	High disturbance	> 75% of reference species lost

Table C-2. Sediment Chemistry Guideline Categorization

Sediment Chemistry Guideline		Chemistry LOE Category
CA LRM	CSI	
<0.33	<1.69	Minimal Exposure
0.33 - 0.49	1.69 - 2.33	Low Exposure
0.50 - 0.66	2.34 - 2.99	Moderate Exposure
>0.66	>2.99	High Exposure

Table C-3. Sediment Toxicity Categorization Values for Whole Sediment Survival Test using the Amphipod *Eohaustorius estuarius*

% Survival of <i>E. estuarius</i> in Project Sediment		Toxicity LOE Category
If Significantly Different than Control Survival	If Not Significantly Different from Control	
90 – 100	82 – 100	Nontoxic
82 – 89	59 – 81	Low Toxicity
59 – 81	na	Moderate Toxicity
< 59	< 59	High Toxicity

na- not applicable

Table C-4. Sediment Toxicity Categorization Values for the Bivalve Embryo Development Sediment-Water Interface Test using *Mytilus galloprovincialis*

% Normal Development in <i>M. galloprovincialis</i>		Toxicity LOE Category
If Significantly Different than Control Survival	If Not Significantly Different from Control	
80 – 100	77 – 79	Nontoxic
77 – 79	42 – 76	Low Toxicity
42 – 76	NA	Moderate Toxicity
< 42	< 42	High Toxicity

Table C-5. Benthic Index Categorization Values for Southern California Marine Bays

Benthic Community Guideline				Benthic Index Category
BRI	IBI	RBI	RIVPACS	
< 39.96	0	> 0.27	> 0.90 to < 1.10	Reference
≥ 39.96 to < 49.14	1	> 0.16 to ≤ 0.27	> 0.75 to ≤ 0.90 or ≥ 1.10 to < 1.26	Low Disturbance
≥ 49.15 to < 73.27	2	> 0.08 to ≤ 0.16	> 0.32 to ≤ 0.74 or > 1.26	Moderate Disturbance
≥ 73.27	3 or 4	≤ 0.08	≤ 0.32	High Disturbance

Table C-6. Severity of Biological Effects Category

Benthic Condition LOE Category	Toxicity LOE Category	Severity of Biological Effects Category
Reference	Nontoxic	Unaffected
Reference	Low Toxicity	Unaffected
Reference	Moderate Toxicity	Unaffected
Reference	High Toxicity	Low Effect
Low Disturbance	Nontoxic	Unaffected
Low Disturbance	Low Toxicity	Low Effect
Low Disturbance	Moderate Toxicity	Low Effect
Low Disturbance	High Toxicity	Low Effect
Moderate Disturbance	Nontoxic	Moderate Effect
Moderate Disturbance	Low Toxicity	Moderate Effect
Moderate Disturbance	Moderate Toxicity	Moderate Effect
Moderate Disturbance	High Toxicity	Moderate Effect
High Disturbance	Nontoxic	Moderate Effect
High Disturbance	Low Toxicity	High Effect
High Disturbance	Moderate Toxicity	High Effect
High Disturbance	High Toxicity	High Effect

Table C-7. Potential for Chemically Mediated Effects Category

Sediment Chemistry Category	Toxicity LOE Category	Potential for Chemically Mediated Effects Category
Minimal Exposure	Nontoxic	Minimal Potential
Minimal Exposure	Low Toxicity	Minimal Potential
Minimal Exposure	Moderate Toxicity	Low Potential
Minimal Exposure	High Toxicity	Moderate Potential
Low Exposure	Nontoxic	Minimal Potential
Low Exposure	Low Toxicity	Low Potential
Low Exposure	Moderate Toxicity	Moderate Potential
Low Exposure	High Toxicity	Moderate Potential
Moderate Exposure	Nontoxic	Low Potential
Moderate Exposure	Low Toxicity	Moderate Potential
Moderate Exposure	Moderate Toxicity	Moderate Potential
Moderate Exposure	High Toxicity	Moderate Potential
High Exposure	Nontoxic	Moderate Potential
High Exposure	Low Toxicity	Moderate Potential
High Exposure	Moderate Toxicity	High Potential
High Exposure	High Toxicity	High Potential

Table C-8. Final Integrated Station Level Assessment Matrix

Severity of Biological Effects Category	Potential for Chemically Mediated Effects Category	Station Level Assessment
Unaffected	Minimal Potential	Unimpacted
Unaffected	Low Potential	Unimpacted
Unaffected	Moderate Potential	Likely Unimpacted
Unaffected	High Potential	Inconclusive
Low Effect	Minimal Potential	Likely Unimpacted
Low Effect	Low Potential	Likely Unimpacted
Low Effect	Moderate Potential	Possibly Impacted or Inconclusive
Low Effect	High Potential	Likely Impacted
Moderate Effect	Minimal Potential	Likely Unimpacted
Moderate Effect	Low Potential	Possibly Impacted
Moderate Effect	Moderate Potential	Likely Impacted
Moderate Effect	High Potential	Clearly Impacted
High Effect	Minimal Potential	Inconclusive
High Effect	Low Potential	Possibly Impacted
High Effect	Moderate Potential	Likely Impacted
High Effect	High Potential	Clearly Impacted