

A topographic map of a coastal region, likely the western coast of North America. The map shows a network of streams and rivers flowing from the interior towards the coast. Elevation is indicated by color, with green representing lower elevations and yellow/orange representing higher elevations. A purple line, possibly a political boundary, runs across the upper portion of the map. The coastline is visible on the left side, with a large bay or inlet at the bottom left.

## **APPENDIX B**

### **Stream Bioassessment Data**



## Appendix B.1: Site Photographs



**Santa Margarita River at Willow Glen Road SMR-WGR**



**Santa Margarita River on Camp Pendleton SMR-CP**



**San Luis Rey River at Mission Road SLRR-MR**



**San Luis Rey River at Benet Road SLRR-BR**



## Appendix B.1: Site Photographs



**Buena Vista River at College Blvd.**



**Agua Hedionda Creek at Melrose Drive AHC-MR**



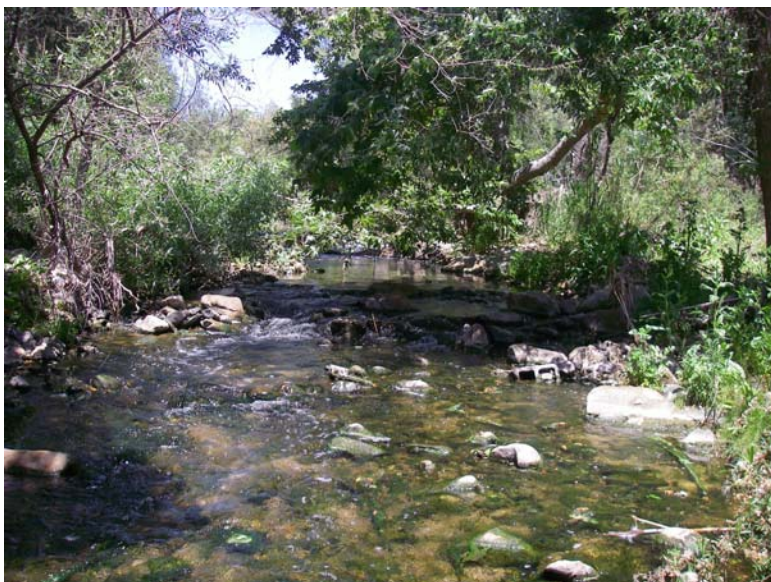
**Agua Hedionda Creek at El Camino Real AHC-ECR**



**Escondido Creek at Harmony Grove Bridge ESC-HRB**



## Appendix B.1: Site Photographs



**Escondido Creek in Elfin Forest ESC-EF**



**Green Valley Creek at West Bernardo Drive GVC-WB**



**San Dieguito River along Del Dios Highway SD-DDH**



**Los Peñasquitos Creek at Cobblestone Creek Rd. LPC-CCR**



## Appendix B.1: Site Photographs



**Los Peñasquitos Creek at Highway 805 LPC-805**



**Rose Creek near Highway 52 MB-RC**



**Tecolote Creek in Tecolote Creek Natural Park TC-TCNP**



**San Diego River in Mission Trails Park SDR-MT**



## Appendix B.1: Site Photographs



**San Diego River in Mission Valley SDR-1**



**Chollas Creek at Federal Blvd. CC-FB**



**Sweetwater River at Highway 94**



**Sweetwater River along Bonita Road SR-WS**



## Appendix B.1: Site Photographs



**Campo Creek in Campo CC-C**



**Tijuana River near the Border Fence TJ-BF**



**Sandia Creek Reference Site REF-SC2**



**Doane Creek Reference Site REF-DC**



## Appendix B.1: Site Photographs



**Boulder Creek Reference Site REF-BCR**



Appendix B.2-1: Taxonomic Listing of Benthic Macrorinvertebrates Collected October 2006.

(TV = Tolerance Value: range is 0-10; 0 is intolerant to impairment, 10 is highly tolerant to impairment. FFG = Functional Feeding Group: c=collector, cf=collector-filterer, cg=collector-gatherer, mh=macrophyte herbivore, om=omnivore, p=predator, pa= parasite, ph=piercer herbivore, sc=scrapper, sh=shredder

	TV	FFG	AHC-MR	AHC-ECR	BVR-CB	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP
PHYLUM ARTHROPODA																										
Insecta																										
Ephemeroptera (mayflies)																										
Baetidae																										
<i>Baetis</i> sp	5	cg	2		157		3	97			1	4	13	13	2	36	32		11				76			
<i>Callibaetis</i> sp	9	cg		47																					1	
<i>Dipheter hageni</i>	5	cg													94											
<i>Falloon quilleri</i>	4	cg			67		72	5		46	14	42	37	13			18		102			148	64	7		
Heptageniidae																										
<i>Epeorus</i> sp	0	sc													3											
<i>Ironodes</i> sp	3	sc													78											
<i>Leucrocuta/Nixe</i> sp	3	sc													1											
Leptohyphidae																										
<i>Tricorythodes</i> sp	4	cg						12														21	2			
Paraleptophlebiidae																										
<i>Paraleptophlebia</i> sp	4	cg													27											
Odonata (damselflies, dragonflies)																										
Aeshnidae																										
<i>Anax</i> sp	8	p		7																					4	1
Calopterygidae																										
<i>Hetaerina americana</i>	6	p			2			1						3		1	2					2				
Coenagrionidae	9	p						3																		
<i>Argia</i> sp	7	p	58		18	10	8	16	4	5		31	48	34		27	38		11	1		4	14	4	20	
<i>Enallagma/Ischnura</i> sp imm.	9	p							5	2			3						2							
<i>Ischnura</i> sp	9	p		2																					2	2
Cordulegastridae																										
<i>Cordulegaster dorsalis</i>	3	p													1											
Gomphidae																										
<i>Progomphus borealis</i>	4	p												1							6					
Libellulidae																										
<i>Brechmorhoga mendax</i>	9	p			1			1				1														
<i>Libellula</i> sp	9	p								2																
<i>Paltothermis lineatipes</i>	9	p						1	1					6												
Plecoptera (stoneflies)															1											
Capniidae	1	sh													67											
Chloroperlidae	1	p													20											
<i>Sweltsa</i> sp	1	p													8											
Nemouridae	2	sh													15											
<i>Malenka</i> sp	2	sh														2										
<i>Zapada</i> sp	2	sh													31											
Hemiptera (true bugs)																										
Belostomatidae	8	p												3												
<i>Abedus</i> sp	8	p												2												
Corixidae	8	p										1													5	1
<i>Trichocorixa</i> sp	8	p																							1	
Naucoridae																										
<i>Ambrysus</i> sp	5	p																				1				
Trichoptera (caddisflies)																										
Brachycentridae																										
<i>Micrasema</i> sp	1	mh														153										
Glossosomatidae	0	sc													1											
<i>Agapetus</i> sp	0	sc														9										
Helicopsychidae																										
<i>Helicopsyche borealis</i>	3	sc												1		8										
Hydropsychidae																										
<i>Cheumatopsyche</i> sp	5	cf						25						38		18			64			2	58			
<i>Hydropsyche</i> sp	4	cf												37	20	183	8		3		11	16				
<i>Parapsyche</i> sp	0	p													5											
Hydroptilidae	4	ph												4												
<i>Hydroptila</i> sp	6	ph			4		34	6		2		3	20	1			37		3			33			8	
<i>Ochrotrichia</i> sp	4	ph												16												
<i>Oxyethira</i> sp	3	ph		8																		3				
Lepidostomatidae																										
<i>Lepidostoma</i> sp	1	sh													1	5										
Limnephilidae																										
<i>Hesperophylax</i> sp	3	om													3											
Psychomyiidae																										
<i>Tinodes</i> sp	2	sc						1						2		2										
Rhyacophilidae																										
<i>Rhyacophila</i> sp	0	p													10											



Appendix B.2-1: Taxonomic Listing of Benthic Macrorinvertebrates Collected October 2006.

	TV	FFG	AHC-MR	AHC-ECR	BVR-CB	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP
Sericostomatidae																										
<i>Gumaga sp</i>	3	sh													2											
Uenoidae																										
<i>Neophylax sp</i>	3	g													1											
<u>Lepidoptera (moths)</u>																										
Nepticulidae		s													6											
<u>Coleoptera (beetles)</u>																										
Dryopidae																										
<i>Helichus sp</i>	5	sh														5										
<i>Postelichus sp</i>	5	sh																				3				
Dytiscidae																										
<i>Agabinus sp</i>	5	p													1											
<i>Agabus sp</i>	8	p												3	7	1										
<i>Laccophilus sp</i>	5	p																				1				
<i>Stictotarsus sp</i>	5	p				2								1												
Elmidae																										
<i>Microcylloepus sp</i>	4	cg														17										
<i>Zaitzevia sp</i>	4	sc														23										
Hydraenidae																										
<i>Hydraena sp</i>	5	p													1											
Hydrophilidae																										
<i>Laccobius sp</i>	5	mh		2						1																
<i>Paracymus sp</i>	5	p		1																						
<i>Tropisternus sp</i>	5	p																				3				
Psephenidae																										
<i>Eubrianax edwardsi</i>	4	sc														2										
<u>Diptera (true flies)</u>																										
Ceratopogonidae	6	p								13												1				26
<i>Atrichopogon sp</i>	6	cg										3														
<i>Bezzia/Palpomyia</i>	6	p				14					4	1					1		2			2		52		16
<i>Dasyhelea sp</i>	6	cg		2				1		11				4								1				53
<i>Forcipomyia sp</i>	6	cg	1																						2	
Chironomidae	6	cg	47	75	143	9	211	149	20	37	42	292	111	105	68	7	65	285	202	48		76	125	46	165	84
Culicidae																										
<i>Anopheles sp</i>	8	cg																						1		
Dixidae																										
<i>Dixa sp</i>	2	cg														8										
Dolichopodidae	4	p			1																					
Empididae	6	p			1																					
<i>Hemerodromia sp</i>	6	p												1				1	4		1					
Ephydridae	6																					2				15
Muscidae	6	p																			1					
Psychodidae																										
<i>Maruina lanceolata</i>	2	sc														2										
<i>Pericoma/Telmatoscopus</i>	4	cg				1	2			2					1				1		1					14
Sciomyzidae	6	p																						1		
Simuliidae																										
<i>Simulium sp</i>	6	cf	1	1	60		21	18		7	28	50	55	36			166		37		1	31	140	22	2	
Stratiomyidae																										
<i>Caloparyphus/Euparyphus</i>	8	cg					15	4	5			2	1	5		2			1			26				
<i>Myxosargus sp</i>	8	cg										1													6	
<i>Nemotelus sp</i>	8	cg															1							1		
Tipulidae																										
<i>Holorusia hespera</i>	5	sh				2									1											
<i>Holorusia hespera / Tipula imm.</i>	5	om																		1	2					
<i>Limonia sp</i>	6	sh	3							5				1												8
PHYLUM CHELICERATA																										
<b>Arachnida</b>																										
<u>Acari (water mites)</u>																										
Hydryphantidae																										
<i>Protzia sp</i>	8	p														1										
Hygrobatidae																										
<i>Atractides sp</i>	8	p																				2				
Lebertiidae																										
<i>Lebertia sp</i>	8	p													2											
Mideopsidae																										
<i>Mideopsis sp</i>	5	p													1								1			
Sperchontidae																										
<i>Sperchon sp</i>	8	p		1	3			3						2		9			2			1	4	3		
Torrenticolidae																										
<i>Torrenticola sp</i>	5	p														1										
Unionicolidae																										



Appendix B.2-1: Taxonomic Listing of Benthic Macorinvertebrates Collected October 2006.

	TV	FFG	AHC-MR	AHC-ECR	BVR-CB	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP
<i>Koenikea sp</i>																									1	
PHYLUM ARTHROPODA																										
<b>Malacostraca</b>																										
<u>Amphipoda (scuds)</u>																										
Corophiidae																										
<i>Americorophium sp</i>	4	cf																7								
Crangonyctidae																										
<i>Crangonyx sp</i>	4	cg						5																24		
Gammaridae																										
<i>Gammarus sp</i>	4	cg																			442	394				
Hyalellidae																										
<i>Hyalella sp</i>	8	cg	14	200	40	181		103	389	263	387	58	184				106	108	20		1	72			177	173
<u>Decapoda</u>																										
Cambaridae	8	sh	5		8	6			2	1		1	7			3			2		2			14	48	13
<i>Procambarus clarki</i>	8	sh																		1	6				1	
<b>Ostracoda (seed shrimp)</b>	8	cg		107		27	14	9	7	2	1	1	4	32					6			20			2	21
PHYLUM PLATYHELMINTHES																										
<b>Turbellaria (flatworms)</b>	4	p		9	1			17	39	14	22	7	5				5	71	2					2		
PHYLUM CNIDARIA																										
<b>Hydrozoa</b>																										
<u>Hydroida (hydroids)</u>																										
Hydridae																										
<i>Hydra sp</i>	5	p																3								
PHYLUM NEMERTEA																										
<b>Enopla (tongueworms)</b>																										
<u>Hoplonemertea</u>																										
Tetrastemmatidae																										
<i>Prostoma sp</i>	8	p	4	3	1											5			1		3	1	1	11		
PHYLUM ANNELIDA																										
<b>Hirudinida (leeches)</b>																										
<u>Arynchobdellida</u>																										
Erpobdellidae	8	p							1																	
<i>Mooreobdella sp</i>	8	p							1																	
<b>Oligochaeta (earthworms)</b>	5	cg	2		3	141			23			7	1		8	2		8	3		5			1	62	1
PHYLUM MOLLUSCA																										
<b>Gastropoda (snails)</b>																										
<u>Pulmonata</u>																										
Ancylidae																										
<i>Ferrissia sp</i>	6	sc			1									8											1	
Lymnaeidae																										
<i>Lymnea sp</i>	6	sc	3	3			6	1		12							1		1				1		1	7
Physidae																										
<i>Physa sp</i>	8	sc	3	28		19	86	1		40		2		55					1			14	1	10	1	6
Planorbidae																										
<i>Gyraulus sp</i>	8	sc																								
<i>Planorbella sp</i>	6	sc	1						1					51												
Pleuroceridae																										
<i>Ovatella myosotis</i>		sc																						1		
<u>Prosobranchia</u>																										
Thiariidae																										
<i>Melanoides tuberculata</i>		sc							10																	
<b>Bivalvia (clams)</b>																										
<u>Veneroida</u>																										
Corbiculidae																										
<i>Corbicula sp</i>	10	cf	333	1	8			13		8		8					6	7	38	3	8	2		281	2	
<u>Pelecypoda</u>																										
Sphaeriidae																										
<i>Pisidium sp</i>	8	cf				53									29											



Appendix B.2-2: Taxonomic Listing of Benthic Macroinvertebrates Collected May 2007.

(TV = Tolerance Value: range is 0-10; 0 is intolerant to impairment, 10 is highly tolerant to impairment. FFG = Functional Feeding Group: c=collector, cf=collector-filterer, cg=collector-gatherer, mh=macrophyte herbivore, om=omnivore, p=predator, pa= parasite, ph=piercer herbivore, sc=scrapper, sh=shredder

	TV	FFG	AHC-MR	AHC-ECR	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP	TJ-BF
PHYLUM ARTHROPODA																										
Insecta																										
Ephemeroptera (mayflies)																										
Ameletidae																										
Ameletus sp	0	cg												1												
Baetidae																										
Baetis sp	5	cg	97	1		23	158			27	63	71	50	2	127	153		42			1	240	12	1		
Callibaetis sp	9	cg			9																1					
Diphotor hageni	5	cg												13												
Fallceon quilleri	4	cg	4	79	1	14	72	61	3	31	11	8	57			25		162			134	12	14			
Ephemerellidae	1	cg											2													
Drunella sp	0	cg												2												
Serratella sp	2	cg																								
Heptageniidae																										
Epeorus sp	0	sc											1													
Ironodes sp	3	sc												46												
Leptohyphidae																										
Tricorythodes sp	4	cg					2														73					
Paraleptophlebiidae																										
Paraleptophlebia sp	4	cg			3									10												
Odonata (damselflies, dragonflies)																										
Aeshnidae																										
Anax sp	8	p																			1					
Calopterygidae																										
Hetaerina americana	6	p														2						1				
Coenagrionidae	9	p						3							1						4					
Argia sp	7	p				4					4		27		7	6		3				1		1	1	
Ischnura sp	9	p																			1					
Libellulidae																										
Brechmorhoga mendax	9	p											1					2								
Paltothermis lineatipes	9	p											1													
Plecoptera (stoneflies)																										
Capniidae	1	sh												1												
Chloroperlidae														14												
Haploperla chilnualna sp	1	p												4												
Sweltsa sp	1	p												8												
Triznaka sp	1	p												3												
Nemouridae																										
Malenka sp	2	sh												17	5											
Zapada sp	2	sh												9												
Perlodidae	2	p			1																					
Isoperla sp	2	p												10												
Hemiptera (true bugs)																										
Belostomatidae																										
Abedus sp	8	p											1													
Corixidae	8	p																					1			
Trichocorixa sp	8	p			1																		1			
Megaloptera																										
Corydalidae																										
Neohermes sp	0	p													1											
Trichoptera (caddisflies)														1												
Brachycentridae																										
Micrasema sp	1	mh													1											
Glossosomatidae																										
Agapetus sp	0	sc													6											
Helicopsychidae																										
Helicopsyche sp	3	sc											2													
Hydropsychidae																										
Cheumatopsyche sp	5	cf					4						26		6	2		7			2	20				
Hydropsyche sp	4	cf											13	14	45					9	3	59				
Hydroptilidae	4	ph										6														
Hydroptila sp	6	ph		1		3		1		1		3	19					2			4	1		2	2	
Ochrotrichia sp	4	ph			3								29													
Oxyethira sp	3	ph																			2					
Limnephilidae																										
Hesperophylax sp	3	om												41												
Philopotamidae																										
Wormaldia sp	3	cf											1													
Psychomyiidae																										
Tinodes sp	2	sc											3	1												



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	TV	FFG	AHC-MR	AHC-ECR	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP	TJ-BF
Rhyacophilidae																										
<i>Rhyacophila sp</i>	0	p												15												
Sericostomatidae																										
<i>Gumaga sp</i>	3	sh												4												
Uenoidae																										
<i>Neophylax sp</i>	3	g												3												
Coleoptera (beetles)																										
Dryopidae																										
<i>Postelichus sp</i>	5	sh																								
Dytiscidae																										
<i>Agabus sp</i>	8	p			4									7	1											
<i>Hydroporinae imm.</i>	5	p		1																						
<i>Ilybius sp</i>	5	p																								
<i>Sanfillipodytes sp</i>					8																					
<i>Stictotarsus sp</i>	5	p			6																					
Elmidae																										
<i>Heterelmis sp</i>	4	cg													1											
<i>Microcyllloepus sp</i>	4	cg													11							1				
<i>Zaitzevia sp</i>	4	sc											1		11											
Hydraenidae																										
<i>Hydraena sp</i>	5	p												7												
Hydrophilidae																										
<i>Anacaena sp</i>	5	p												1												
<i>Tropisternus sp</i>	5	p			3																3					
Scirtidae																										
<i>Cyphon sp</i>	7	sc												1												
Diptera (true flies)																										
Ceratopogonidae	6	p		2																						
<i>Bezzia/Palpomyia</i>	6	p			2									3	4				1	1						
<i>Culicoides sp</i>	6	p		1																					9	
<i>Dasyhelea sp</i>	6	cg		2	1																					
Chironomidae	6	cg	145	102	317	357	142	99	149	303	159	115	191	160	235	73	94	77	71	14	56	104	378	47	93	6
Culicidae																										
<i>Anopheles sp</i>	8	cg		1																						
<i>Culex sp</i>	8	cg																							8	
Dixidae																										
<i>Dixa sp</i>	2	cg												1	2											
<i>Meringodixa chalonensis</i>	2	cg																								
Empididae	6	p												1												
<i>Clinocera sp</i>	6	p			1																					
<i>Hemerodromia sp</i>	6	p											2													
Ephydriidae	6			2									1		2						2				63	
Muscidae	6	p	1		1																				64	
Psychodidae																										
<i>Maruina lanceolata</i>	2	sc													11											
<i>Pericoma/Telmatoscopus</i>	4	cg	1			2			1					2							2		2		1	
<i>Psychoda sp</i>	10	cg																				1			208	
Sciomyzidae	6	p				1																				
Simuliidae																										
<i>Simulium sp</i>	6	cf	212	1	1	12	58	8	218	40	148	131	10			157	13	117	4	2	12	34	6	108	192	
Stratiomyidae																										
<i>Caloparyphus/Euparyphus</i>	8	cg				20	2	8			1			1	1						20					
<i>Euparyphus sp</i>	8	cg						2																		
Syrphidae	10	cg																							1	
Tipulidae																										
<i>Cryptolabis sp</i>	3	sh												3												
<i>Dicranota sp</i>	3	p												11												
<i>Holorusia hespera</i>	5	sh										1			3									4		
<i>Holorusia hespera / Tipula</i>	5	om				2						1											1			
<i>Molophilus sp</i>	4	sh																					1			
<i>Ormosia sp</i>	3	cg																							8	
<i>Tipula sp</i>	4	om		3			1											3								
PHYLUM CHELICERATA																										
Arachnida																										
Acari (water mites)																										
Hygrobatidae																										
<i>Atractides sp</i>	8	p												1												
<i>Mesobates sp</i>	8	p																								
Limnocharidae																										
<i>Limnochares sp</i>	5	p												1												
Mideopsidae																										
<i>Mideopsis sp</i>	5	p																			2					



Appendix B.2-2: Taxonomic Listing of Benthic Macroinvertebrates Collected May 2007.

	TV	FFG	AHC-MR	AHC-ECR	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP	TJ-BF
Sperchontidae																										
<i>Sperchon sp</i>	8	p	1										3	1				17			1	3				
PHYLUM ARTHROPODA																										
Malacostraca																										
Amphipoda (scuds)																										
Corophiidae																										
<i>Americorophium sp</i>	4	cf															307									
Crangonyctidae																										
<i>Crangonyx sp</i>	4	cg																	2	3						
Gammaridae																										
<i>Gammarus sp</i>	4	cg						1											337	461						
Hyalellidae																										
<i>Hyalella sp</i>	8	cg	13	93			31	205	77	33	35	9				15	46	14			128	1	3	292	30	
Decapoda																										
Cambaridae	8	sh	1		1										1	2		1	1			1	3		1	
<i>Procambarus clarki</i>	8	sh		1	1	2										2	1						1	1		
Ostracoda (seed shrimp)	8	cg		183	51	30	10	59	5	40	47	36	27		1	65	6	45	8		33	2	15	10	141	
PHYLUM PLATYHELMINTHES																										
Turbellaria (flatworms)	4	p		1			5	35	38	6	3	4				2	1	2		1	3			2		
PHYLUM NEMERTEA																										
Enopla (tongueworms)																										
Hoplonemertea																										
Tetrastemmatidae																										
<i>Prostoma sp</i>	8	p		1						1											1		2			
PHYLUM ANNELIDA																										
Oligochaeta (earthworms)	5	cg	6		13			1	1		1	70		18	11			2	16		1		3	6	7	137
PHYLUM MOLLUSCA																										
Gastropoda (snails)																										
Pulmonata																										
Ancylidae																										
<i>Ferrissia sp</i>	6	sc						3					1		2											
Lymnaeidae																										
<i>Lymnea sp</i>	6	sc	1			2															1					
Physidae																										
<i>Physa sp</i>	8	sc	1	1	72	8		2			6	1	19			2	12	1				6	7		16	
Planorbidae																										
<i>Gyraulus sp</i>	8	sc											2													
Planorbidae																										
<i>Planorbella sp</i>	6	sc															1									
Bivalvia (clams)																										
Veneroida																										
Corbiculidae																										
<i>Corbicula sp</i>	10	cf		5				1	1		4					9	6	4	23	1	1	2	27	27		
Pelecypoda																										
Sphaeriidae																										
<i>Pisidium sp</i>	8	cf												50												



Appendix B.3-1: Ranked Abundance of Benthic Macroinvertebrates Collected October 2006.

Taxon	AHC-ECR	AHC-MR	BVR-CB	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP	Grand Total
Hyalella sp	200	14	40	181		103	389	263	387	58	184				106	108	20		1	72		177	173		2476
Chironomidae	75	47	143	9	211	149	20	37	42	292	111	105	68	7	65	285	202	48		76	125	46	165	84	2412
Gammarus sp																		442	394						836
Corbicula sp	1	333	8			13		8		8					6	7	38	3	8	2		281	2		718
Simulium sp	1	1	60		21	18		7	28	50	55	36			166		37		1	31	140	22	2		676
Fallceon quilleri			67		72	5		46	14	42	37	13			18		102			148	64	7			635
Baetis sp		2	157		3	97			1	4	13	13	2	36	32		11				76				447
Argia sp		58	18	10	8	16	4	5		31	48	34		27	38		11	1			4	14	4	20	351
Hydropsyche sp												37	20	183	8		3		11		16				278
Oligochaeta		2	3	141			23			7	1		8	2		8	3		5			1	62	1	267
Physa sp	28	3		19	86	1		40		2		55					1			14	1	10	1	6	267
Ostracoda	107			27	14	9	7	2	1	1	4	32					6			20		2	21		253
Cheumatopsyche sp						25						38		18			64			2	58				205
Turbellaria	9		1			17	39	14	22	7	5				5	71	2					2			194
Micrasema sp														153											153
Hydroptila sp			4		34	6		2		3	20	1			37		3			33				8	151
Cambaridae		5	8	6			2	1		1	7			3			2		2			14	48	13	112
Dipheter hageni													94												94
Bezzia/Palpomyia				14					4	1					1		2			2		52		16	92
Pisidium sp				53									29												82
Ironodes sp													78												78
Dasyhelea sp	2					1		11				4								1				53	72
Capniidae													67												67
Caloparyphus/Euparyphus					15	4	5			2	1	5		2			1			26					61
Gyraulus sp												51													51
Callibaetis sp	47																						1		48
Ceratopogonidae								13												1				26	40
Lymnea sp	3	3			6	1		12							1		1				1		1	7	36
Tricorythodes sp						12														21	2				35
Zapada sp													31												31
Prostoma sp	3	4	1											5			1		3	1	1	11			30
Crangonyx sp						5													24						29
Sperchon sp	1		3			3						2		9			2			1	4	3			28
Paraleptophlebia sp													27												27
Zaitzevia sp														23											23
Pericoma/Telmatoscopus				1	2			2					1				1		1					14	22
Chloroperlidae													20												20
Ephydriidae																				2				15	17
Limonia sp		3						5				1												8	17
Microcyloopus sp														17											17
Ochrotrichia sp												16													16
Nemouridae													15												15
Anax sp	7						5	2			3						2						4	1	12
Enallagma/Ischnura sp																									12
Agabus sp												3	7	1											11
Hetaerina americana			2			1						3		1	2						2				11
Oxyethira sp	8																			3					11
Ferrissia sp			1									8											1		10
Melanoides tuberculata							10																		10
Rhyacophila sp													10												10
Agapetus sp														9											9
Helicopsyche borealis												1		8											9
Dixa sp														8											8
Paltothemis lineatipes						1	1					6													8
Procambarus clarki																		1	6				1		8
Sweltsa													8												8
Americorophium sp																7									7
Corixidae										1													5	1	7
Hemerodromia sp												1				1	4		1						7
Myxosargus sp										1													6		7
Progomphus borealis												1								6					7
Ischnura sp	2																						2	2	6
Lepidostoma sp													1	5											6
Nepticulidae													6												6
Helichus sp														5											5
Parapsyche sp													5												5
Tinodes sp						1						2		2											5
Hydroptilidae												4													4
Atrichopogon										3															3
Belostomatidae												3													3
Brechmorhoga mendax			1			1				1															3
Coenagrionidae						3																			3
Epeorus sp													3												3
Forcipomyia sp		1																					2		3
Hesperophylax													3												3
Holorusia hespera				2									1												3
Holorusia hespera / Tipula																		1	2						3
Hydra sp																3									3

Appendix B.3-1: Ranked Abundance of Benthic Macroinvertebrates Collected October 2006.

Taxon	AHC-ECR	AHC-MR	BVR-CB	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP	Grand Total
Laccobius sp	2							1												3				3	
Postelichus sp																				3				3	
Stictotarsus sp				2								1												3	
Tropisternus sp																				3				3	
Abedus sp												2												2	
Atractides sp																				2				2	
Eubrianax edwardsi														2										2	
Gumaga sp													2											2	
Lebertia sp													2											2	
Libellula sp								2																2	
Malenka sp														2										2	
Maruina lanceolata														2										2	
Mideopsis sp													1								1			2	
Nemotelus sp															1							1		2	
Planorbella sp		1					1																	2	
Agabinus sp													1											1	
Ambrysus sp																				1				1	
Anopheles sp																						1		1	
Cordulegaster dorsalis													1											1	
Dolichopodidae			1																					1	
Empididae			1																					1	
Erpobdellidae							1																	1	
Glossosomatidae													1											1	
Hydraena sp													1											1	
Koenikea sp																						1		1	
Laccophilus sp																				1				1	
Leucrocuta/Nixe sp													1											1	
Mooreobdella sp							1																	1	
Muscidae																			1					1	
Neophylax sp													1											1	
Ovatella myosotis																						1		1	
Paracymus	1																							1	
Plecoptera													1											1	
Protzia sp														1										1	
Sciomyzidae																						1		1	
Torrenticola sp														1										1	
Trichocorixa sp																						1		1	
Grand Total	497	477	519	465	472	492	508	473	499	515	489	478	516	532	486	490	519	496	460	472	495	467	488	469	11774



Appendix B.3-2: Ranked Abundance of Benthic Macroinvertebrates Collected May 2007.

Taxon	AHC-ECR	AHC-MR	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP	TJ-BF	Grand Total
Chironomidae	102	145	317	357	142	99	149	303	159	115	191	160	235	73	94	77	71	14	56	104	378	47	93	6	3859
Simulium sp	1	212	1	12	58	8	218	40	148	131	10			157	13	117	4	2	12	34	6	108	192		1484
Baetis sp	1	97		23	158			27	63	71	50	2	127	153		42			1	240	12	1			1068
Hyalella sp	93	13			31	205	77	33	35	9				15	46	14			128	1	3	292	30		1025
Ostracoda	183		51	30	10	59	5	40	47	36	27		1	65	6	45	8		33	2	15	10	141		814
Gammarus sp						1											337	461							799
Fallceon quilleri	79	4	1	14	72	61	3	31	11	8	57			25		162			134	12	14				688
Americorophium sp															307										307
Oligochaeta		6	13			1	1		1	70		18	11			2	16		1		3	6	7	137	294
Psychoda sp																				1				208	209
Physa sp	1	1	72	8		2			6	1	19			2	12	1			6	7			16		155
Hydropsyche sp											13	14	45					9	3	59					143
Corbicula sp	5					1	1		4					9	6	4	23	1	1	2	27	27			111
Turbellaria	1				5	35	38	6	3	4				2	1	2		1	3		2				103
Ephydriidae	2										1		2						2					63	80
Tricorythodes sp					2														73						75
Cheumatopsyche sp					4						26		6	2		7			2	20					67
Muscidae		1	1																					64	66
Argia sp				4					4		27		7	6		3				1		1	1		54
Caloparyphus/Euparyphus				20	2	8			1				1						20						54
Pisidium sp												50													50
Ironodes sp												46													46
Hydroptila sp	1			3		1		1		3	19					2			4	1		2	2		44
Hesperophylax											41														41
Ochrotrichia sp			3								29														39
Dasyhelea sp	2		1																						28
Sperchon sp		1									3	1				17			1	3					26
Paraleptophlebia sp			3									10													25
Malenka sp												17	5												22
Isoperla sp												10													16
Rhyacophila sp												15													15
Capniidae												14													14
Stictotarsus sp			6																						14
Bezzia/Palpomyia			2									3	4				1	1							13
Dipheter hageni												13													13
Agabus sp			4									7	1												12
Cambaridae		1	1										1	2		1	1			1	3		1		12
Microcyloepus sp													11							1					12
Sanfillipodytes sp			8																						12
Zaitzevia sp											1		11												12
Culex sp																							8		11
Dicranota sp												11													11
Maruina lanceolata													11												11
Pericoma/Telmatoscopus		1		2			1					2							2		2		1		11
Callibaetis sp			9																1						10
Culicoides sp	1																						9		10
Procambarus clarki	1		1	2										2	1						1	1			9
Zapada sp												9													9
Coenagrionidae						3							1						4						8
EphemereIllidae											2														8
Holorusia hespera										1			3										4		8
Hydraena sp												7													8
Ormosia sp																							8		8
Sweltsa sp												8													8
Ameletus sp												1													7
Tipula sp	3				1											3									7
Agapetus sp													6												6
Ferrissia sp						3					1		2												6
Hydroptilidae										6															6
Tropisternus sp			3																3						6
Crangonyx sp																	2	3							5
Micrasema sp													1												5
Prostoma sp	1							1											1		2				5
Gumaga sp												4													4
Haploperla chilnualna sp												4													4
Holorusia hespera / Tipula				2						1											1				4
Lymnea sp		1		2															1						4
Tinodes sp											3	1													4
Brechmorhoga mendax											1					2									3
Cryptolabis												3													3
Dixa sp												1	2												3
Hetaerina americana														2						1					3
Mesobates sp																									3
Neophylax sp												3													3
Triznaka sp												3													3
Ceratopogonidae	2																								2
Drunella sp												2													2
Euparyphus sp						2																			2

Appendix B.3-2: Ranked Abundance of Benthic Macroinvertebrates Collected May 2007.

Taxon	AHC-ECR	AHC-MR	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP	TJ-BF	Grand Total
Gyraulus sp											2														2
Helicopsyche sp											2														2
Hemerodromia sp											2														2
Mideopsis sp																			2						2
Oxyethira sp																			2						2
Postelichus sp																									2
Serratella sp																									2
Trichocorixa sp			1																			1			2
Abadus sp											1														1
Anacaena sp												1													1
Anax sp																			1						1
Anopheles sp	1																								1
Atractides sp												1													1
Clinocera sp			1																						1
Corixidae																						1			1
Cyphon sp												1													1
Empididae												1													1
Epeorus sp											1														1
Heterelmis sp													1												1
Hydroporinae	1																								1
Illybius sp																									1
Ischnura sp																			1						1
Limnochara sp												1													1
Meringodixa chalonensis																									1
Molophilus sp																					1				1
Neohermes sp													1												1
Paltothemis lineatipes											1														1
Perlodidae			1																						1
Planorbella sp															1										1
Plecoptera												1													1
Sciomyzidae				1																					1
Syrphidae																								1	1
Trichoptera												1													1
Wormaldia sp											1														1
Grand Total	481	483	500	480	485	489	493	482	482	456	489	488	496	515	487	501	463	492	492	489	475	499	487	505	12193



**Appendix B.4-1: Top Five Most Abundant Taxa of Benthic Macroinvertebrates Collected October 2006.**

Station	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>
AHC-ECR	<i>Hyalella</i> sp 40.2%	<i>Ostracoda</i> 21.5%	Chironomidae 15.1%	<i>Callibaetis</i> sp 9.5%	<i>Physa</i> sp 5.6%
AHC-MR	<i>Corbicula</i> sp 69.8%	<i>Argia</i> sp 12.2%	Chironomidae 9.9%	<i>Hyalella</i> sp 2.9%	<i>Cambaridae</i> 1.0%
BVR-CB	<i>Baetis</i> sp 30.3%	Chironomidae 27.6%	<i>Fallceon quillieri</i> 12.9%	<i>Simulium</i> sp 11.6%	<i>Hyalella</i> sp 7.7%
CC-C	<i>Hyalella</i> sp 38.9%	<i>Oligochaeta</i> 30.3%	<i>Pisidium</i> sp 11.4%	<i>Ostracoda</i> 5.8%	<i>Physa</i> sp 4.1%
CC-FB	Chironomidae 44.7%	<i>Physa</i> sp 18.2%	<i>Fallceon quillieri</i> 15.3%	<i>Hydroptila</i> sp 7.2%	<i>Simulium</i> sp 4.4%
ESC-EF	Chironomidae 30.3%	<i>Hyalella</i> sp 20.9%	<i>Baetis</i> sp 19.7%	<i>Cheumatopsyche</i> sp 5.1%	<i>Simulium</i> sp 3.7%
ESC-HRB	<i>Hyalella</i> sp 76.6%	<i>Turbellaria</i> 7.7%	<i>Oligochaeta</i> 4.5%	Chironomidae 3.9%	<i>Melanoides tuberculata</i> 2.0%
GVC-WB	<i>Hyalella</i> sp 55.6%	<i>Fallceon quillieri</i> 9.7%	<i>Physa</i> sp 8.5%	Chironomidae 7.8%	<i>Turbellaria</i> 3.0%
LPC-805	<i>Hyalella</i> sp 77.6%	Chironomidae 8.4%	<i>Simulium</i> sp 5.6%	<i>Turbellaria</i> 4.4%	<i>Fallceon quillieri</i> 2.8%
LPC-CCR	Chironomidae 56.7%	<i>Hyalella</i> sp 11.3%	<i>Simulium</i> sp 9.7%	<i>Fallceon quillieri</i> 8.2%	<i>Argia</i> sp 6.0%
MB-RC	<i>Hyalella</i> sp 37.6%	Chironomidae 22.7%	<i>Simulium</i> sp 11.2%	<i>Argia</i> sp 9.8%	<i>Fallceon quillieri</i> 7.6%
REF-BCR	Chironomidae 22.0%	<i>Physa</i> sp 11.5%	<i>Gyraulus</i> sp 10.7%	<i>Cheumatopsyche</i> sp 7.9%	<i>Hydropsyche</i> sp 7.7%
REF-DC	<i>Diphetor hageni</i> 18.2%	<i>Ironodes</i> sp 15.1%	Chironomidae 13.2%	<i>Capniidae</i> 13.0%	<i>Zapada</i> sp 6.0%
REF-SC2	<i>Hydropsyche</i> sp 34.4%	<i>Micrasema</i> sp 28.8%	<i>Baetis</i> sp 6.8%	<i>Argia</i> sp 5.1%	<i>Zaitzevia</i> sp 4.3%
SD-DDH	<i>Simulium</i> sp 34.2%	<i>Hyalella</i> sp 21.8%	Chironomidae 13.4%	<i>Argia</i> sp 7.8%	<i>Hydroptila</i> sp 7.6%
SDR-1	Chironomidae 58.2%	<i>Hyalella</i> sp 22.0%	<i>Turbellaria</i> 14.5%	<i>Oligochaeta</i> 1.6%	<i>Americorophium</i> sp 1.4%
SDR-MT	Chironomidae 38.9%	<i>Fallceon quillieri</i> 19.7%	<i>Cheumatopsyche</i> sp 12.3%	<i>Corbicula</i> sp 7.3%	<i>Simulium</i> sp 7.1%
SLRR-BR	<i>Gammarus</i> sp 89.1%	Chironomidae 9.7%	<i>Corbicula</i> sp 0.6%	<i>Argia</i> sp 0.2%	<i>Holorusia hespera</i> / <i>Tipula</i> 0.2%
SLRR-MR	<i>Gammarus</i> sp 85.7%	<i>Crangonyx</i> sp 5.2%	<i>Hydropsyche</i> sp 2.4%	<i>Corbicula</i> sp 1.7%	<i>Procambarus clarki</i> 1.3%
SMR-CP	<i>Fallceon quillieri</i> 31.4%	Chironomidae 16.1%	<i>Hyalella</i> sp 15.3%	<i>Hydroptila</i> sp 7.0%	<i>Simulium</i> sp 6.6%
SMR-WGR	<i>Simulium</i> sp 28.3%	Chironomidae 25.3%	<i>Baetis</i> sp 15.4%	<i>Fallceon quillieri</i> 12.9%	<i>Cheumatopsyche</i> sp 11.7%
SR-94	<i>Corbicula</i> sp 60.2%	<i>Bezzia</i> / <i>Palpomyia</i> 11.1%	Chironomidae 9.9%	<i>Simulium</i> sp 4.7%	<i>Argia</i> sp 3.0%
SR-WS	<i>Hyalella</i> sp 36.3%	Chironomidae 33.8%	<i>Oligochaeta</i> 12.7%	<i>Cambaridae</i> 9.8%	<i>Myxosargus</i> sp 1.2%
TC-TCNP	<i>Hyalella</i> sp 36.9%	Chironomidae 17.9%	<i>Dasyhelea</i> sp 11.3%	<i>Ceratopogonidae</i> 5.5%	<i>Ostracoda</i> 4.5%

**Appendix B.4-2: Top Five Most Abundant Taxa of Benthic Macroinvertebrates Collected May 2007.**

Station	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>
AHC-ECR	<b>Ostracoda</b> 38.0%	Chironomidae 21.2%	<b>Hyaella sp</b> 19.3%	Fallceon quillieri 16.4%	<b>Corbicula sp</b> 1.0%
AHC-MR	Simulium sp 43.9%	Chironomidae 30.0%	Baetis sp 20.1%	<b>Hyaella sp</b> 2.7%	Oligochaeta 1.2%
CC-C	Chironomidae 63.4%	<b>Physa sp</b> 14.4%	<b>Ostracoda</b> 10.2%	Oligochaeta 2.6%	<b>Callibaetis sp</b> 1.8%
CC-FB	Chironomidae 74.4%	<b>Ostracoda</b> 6.3%	Baetis sp 4.8%	<b>Caloparyphus/Euparyphus</b> 4.2%	Fallceon quillieri 2.9%
ESC-EF	Baetis sp 32.6%	Chironomidae 29.3%	Fallceon quillieri 14.8%	Simulium sp 12.0%	<b>Hyaella sp</b> 6.4%
ESC-HRB	<b>Hyaella sp</b> 41.9%	Chironomidae 20.2%	Fallceon quillieri 12.5%	<b>Ostracoda</b> 12.1%	Turbellaria 7.2%
GVC-WB	Simulium sp 44.2%	Chironomidae 30.2%	<b>Hyaella sp</b> 15.6%	Turbellaria 7.7%	<b>Ostracoda</b> 1.0%
LPC-805	Chironomidae 62.9%	<b>Ostracoda</b> 8.3%	Simulium sp 8.3%	Hyaella sp 6.8%	Fallceon quillieri 6.4%
LPC-CCR	Chironomidae 33.0%	Simulium sp 30.7%	Baetis sp 13.1%	<b>Ostracoda</b> 9.8%	<b>Hyaella sp</b> 7.3%
MB-RC	Simulium sp 28.7%	Chironomidae 25.2%	Baetis sp 15.6%	Oligochaeta 15.4%	<b>Ostracoda</b> 7.9%
REF-BCR	Chironomidae 39.1%	Fallceon quillieri 11.7%	Baetis sp 10.2%	Ochrotrichia sp 5.9%	Argia sp 5.5%
REF-DC	Chironomidae 32.8%	<b>Pisidium sp</b> 10.2%	<b>Ironodes sp</b> 9.4%	Hesperophylax 8.4%	Oligochaeta 3.7%
REF-SC2	Chironomidae 47.4%	Baetis sp 25.6%	Hydropsyche sp 9.1%	<b>Maruina lanceolata</b> 2.2%	Microcylloepus sp 2.2%
SD-DDH	Simulium sp 30.5%	Baetis sp 29.7%	Chironomidae 14.2%	<b>Ostracoda</b> 12.6%	Fallceon quillieri 4.9%
SDR-1	Americorophium sp 63.0%	Chironomidae 19.3%	<b>Hyaella sp</b> 9.4%	Simulium sp 2.7%	<b>Physa sp</b> 2.5%
SDR-MT	Fallceon quillieri 32.3%	Simulium sp 23.4%	Chironomidae 15.4%	<b>Ostracoda</b> 9.0%	Baetis sp 8.4%
SLRR-BR	Gammarus sp 72.8%	Chironomidae 15.3%	<b>Corbicula sp</b> 5.0%	Oligochaeta 3.5%	<b>Ostracoda</b> 1.7%
SLRR-MR	Gammarus sp 93.7%	Chironomidae 2.8%	Hydropsyche sp 1.8%	Crangonyx sp 0.6%	Simulium sp 0.4%
SMR-CP	Fallceon quillieri 27.2%	<b>Hyaella sp</b> 26.0%	Tricorythodes sp 14.8%	Chironomidae 11.4%	<b>Ostracoda</b> 6.7%
SMR-WGR	Baetis sp 49.1%	Chironomidae 21.3%	Hydropsyche sp 12.1%	Simulium sp 7.0%	Cheumatopsyche sp 4.1%
SR-94	Chironomidae 79.6%	<b>Corbicula sp</b> 5.7%	<b>Ostracoda</b> 3.2%	Fallceon quillieri 2.9%	Baetis sp 2.5%
SR-WS	<b>Hyaella sp</b> 58.5%	Simulium sp 21.6%	Chironomidae 9.4%	<b>Corbicula sp</b> 5.4%	<b>Ostracoda</b> 2.0%
TC-TCNP	Simulium sp 39.4%	<b>Ostracoda</b> 29.0%	Chironomidae 19.1%	<b>Hyaella sp</b> 6.2%	<b>Physa sp</b> 3.3%
TJ-BF	<b>Psychoda sp</b> 41.2%	Oligochaeta 27.1%	Muscidae 12.7%	Ephydridae 12.5%	Culicoides sp 1.8%



Appendix B.5-1: Biological Metric Calculations for Benthic Macroinvertebrates Collected October 2006.

Metric	AHC-ECR	AHC-MR	BVR-CB	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP
Taxa Richness	17	14	18	12	11	23	14	19	8	19	13	28	32	26	14	8	23	6	13	24	14	16	18	17
Ephemeropteran Taxa	1	1	2	0	2	3	0	1	2	2	2	2	6	1	2	0	2	0	0	2	3	1	1	0
Plecopteran Taxa	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	0
Trichopteran Taxa	1	0	1	0	1	3	0	1	0	1	1	7	8	7	2	0	3	0	1	3	2	0	0	1
EPT Taxa	2	1	3	0	3	6	0	2	2	3	3	9	20	9	4	0	5	0	1	5	5	1	1	1
Dipteran Taxa	3	4	4	4	4	4	2	6	3	6	3	6	4	4	4	2	6	2	5	7	2	6	4	6
Non Insect Taxa	8	8	8	6	3	8	9	7	3	7	5	5	4	6	4	6	10	3	7	7	5	8	9	6
% EPT	11.1%	0.4%	43.9%	0.0%	23.1%	29.7%	0.0%	10.1%	3.0%	9.5%	14.3%	26.2%	75.6%	78.2%	19.5%	0.0%	35.3%	0.0%	2.4%	43.9%	43.6%	1.5%	0.2%	1.7%
Sensitive EPT %	1.6%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	47.7%	33.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%
Shannon Diversity	1.7	1.1	1.9	1.7	1.7	2.1	1.0	1.7	0.9	1.6	1.8	2.6	2.6	2.1	1.9	1.2	2.0	0.4	0.7	2.2	1.8	1.5	1.6	2.1
Margalef Diversity	2.6	2.1	2.7	1.8	1.6	3.5	2.1	2.9	1.1	2.9	1.9	4.4	5.0	4.0	2.1	1.1	3.5	0.8	2.1	3.7	2.1	2.4	3.1	2.8
Tolerance Value	7.6	9.0	5.7	6.9	6.2	6.2	7.4	7.1	7.4	6.2	6.7	6.3	3.7	3.4	6.4	6.2	5.9	4.2	4.2	5.8	5.4	8.6	6.9	6.9
% Dominant Taxa	40.2%	69.8%	30.3%	38.9%	44.7%	30.3%	76.6%	55.6%	77.6%	56.7%	37.6%	22.0%	18.2%	34.4%	34.2%	58.2%	38.9%	89.1%	85.7%	31.4%	28.3%	60.2%	36.3%	36.9%
% Chironomidae	15.1%	9.9%	27.6%	1.9%	44.7%	30.3%	3.9%	7.8%	8.4%	56.7%	22.7%	22.0%	13.2%	1.3%	13.4%	58.2%	38.9%	9.7%	0.0%	16.1%	25.3%	9.9%	33.8%	17.9%
% Intolerant Organisms	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	31.2%	34.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Tolerant Organisms	79.7%	75.3%	11.8%	61.5%	24.4%	28.0%	80.9%	67.2%	77.8%	14.6%	40.7%	33.3%	7.4%	3.9%	23.3%	23.5%	14.1%	0.8%	4.3%	29.2%	1.2%	68.7%	51.2%	46.3%
% Collector Gatherer	86.7%	13.8%	79.0%	77.2%	67.2%	78.3%	87.4%	76.3%	89.2%	79.6%	71.8%	36.0%	38.8%	13.5%	45.7%	81.8%	66.7%	98.8%	92.4%	77.1%	53.9%	12.0%	85.0%	73.8%
% Collector Filterer	0.4%	70.0%	13.1%	11.4%	4.4%	11.4%	0.0%	3.2%	5.6%	11.3%	11.2%	23.2%	9.5%	37.8%	37.0%	2.9%	27.4%	0.6%	4.3%	7.4%	43.2%	64.9%	0.8%	0.0%
% Predator	4.6%	13.0%	5.4%	5.6%	1.7%	8.5%	10.0%	7.6%	5.2%	8.0%	11.5%	11.7%	10.9%	8.5%	9.5%	15.3%	4.6%	0.2%	1.1%	3.8%	2.4%	17.8%	3.3%	14.1%
% Shredder	0.0%	1.7%	1.5%	1.7%	0.0%	0.0%	0.4%	1.3%	0.0%	0.2%	1.4%	0.2%	22.7%	2.8%	0.0%	0.0%	0.4%	0.2%	1.7%	0.6%	0.0%	3.0%	10.0%	4.5%
% Scraper	6.2%	1.5%	0.2%	4.1%	19.5%	0.6%	2.2%	11.0%	0.0%	0.4%	0.0%	24.5%	16.1%	8.6%	0.2%	0.0%	0.4%	0.0%	0.0%	3.0%	0.4%	2.4%	0.6%	2.8%
% Other	2.0%	0.0%	0.8%	0.0%	7.2%	1.2%	0.0%	0.6%	0.0%	0.6%	4.1%	4.4%	0.6%	28.8%	7.6%	0.0%	0.6%	0.2%	0.4%	7.6%	0.0%	0.0%	0.0%	1.7%
Estimated Total Abundance/ft <sup>2</sup>	441	94	288	276	210	164	1764	561	887	382	435	850	358	369	288	503	288	220	351	1259	265	100	96	138

Appendix B.5-2: Biological Metric Calculations for Benthic Macroinvertebrates Collected May 2007.

Metric	AHC-ECR	AHC-MR	CC-C	CC-FB	ESC-EF	ESC-HRB	GVC-WB	LPC-805	LPC-CCR	MB-RC	REF-BCR	REF-DC	REF-SC2	SD-DDH	SDR-1	SDR-MT	SLRR-BR	SLRR-MR	SMR-CP	SMR-WGR	SR-94	SR-WS	TC-TCNP	TJ-BF
Taxa Richness	19	12	20	14	11	14	9	9	12	12	24	36	24	13	10	17	9	8	25	17	14	13	10	10
Ephemeropteran Taxa	2	2	3	2	3	1	1	2	2	2	4	6	1	2	0	2	0	0	4	2	2	1	0	0
Plecopteran Taxa	0	0	1	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	0	0	0	0	0	0
Trichopteran Taxa	1	0	1	1	1	1	0	1	0	2	7	7	4	1	0	2	0	1	4	3	0	1	1	0
EPT Taxa	3	2	5	3	4	2	1	3	2	4	11	21	6	3	0	4	0	1	8	5	2	2	1	0
Dipteran Taxa	8	4	6	6	4	3	3	2	3	3	4	8	7	2	2	3	3	3	5	3	5	2	3	9
Non Insect Taxa	7	6	4	4	3	8	5	4	6	5	5	5	4	6	8	8	6	4	9	6	7	6	5	1
% EPT	16.8%	20.9%	3.4%	8.3%	48.7%	12.7%	0.6%	12.2%	15.4%	19.3%	41.5%	44.9%	38.3%	35.0%	0.0%	42.5%	0.0%	1.8%	44.7%	67.9%	5.5%	0.6%	0.4%	0.0%
Sensitive EPT %	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	36.5%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Shannon Diversity	1.6	1.3	1.4	1.1	1.7	1.7	1.3	1.3	1.7	1.8	2.2	2.6	1.7	1.8	1.2	1.9	0.9	0.3	2.0	1.6	0.9	1.3	1.5	1.5
Margalef Diversity	2.9	1.8	3.2	2.1	1.6	2.3	1.3	1.3	1.8	2.0	3.7	6.0	3.7	2.1	1.5	2.6	1.3	1.1	4.0	2.6	2.3	1.9	1.5	1.4
Tolerance Value	6.9	5.8	6.5	6.1	5.5	6.8	6.2	6.1	6.2	5.8	5.6	4.6	5.2	6.0	5.1	5.6	4.7	4.1	5.9	5.3	6.3	7.4	6.8	7.4
% Dominant Taxa	38.0%	43.9%	63.4%	74.4%	32.6%	41.9%	44.2%	62.9%	33.0%	28.7%	39.1%	32.8%	47.4%	30.5%	63.0%	32.3%	72.8%	93.7%	27.2%	49.1%	79.6%	58.5%	39.4%	41.2%
% Chironomidae	21.2%	30.0%	63.4%	74.4%	29.3%	20.2%	30.2%	62.9%	33.0%	25.2%	39.1%	32.8%	47.4%	14.2%	19.3%	15.4%	15.3%	2.8%	11.4%	21.3%	79.6%	9.4%	19.1%	1.2%
% Intolerant Organisms	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	17.4%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Tolerant Organisms	59.3%	3.3%	27.8%	12.5%	8.9%	57.3%	16.8%	15.4%	19.3%	10.1%	10.8%	12.3%	1.0%	18.4%	14.6%	16.8%	6.9%	0.2%	38.8%	3.3%	12.2%	66.5%	38.6%	43.0%
% Collector Gatherer	95.8%	55.1%	79.0%	92.9%	86.0%	89.2%	47.9%	90.0%	65.8%	67.8%	66.9%	43.0%	78.4%	64.3%	30.0%	68.3%	93.7%	97.2%	91.3%	73.8%	89.9%	71.3%	55.6%	73.1%
% Collector Filterer	1.2%	43.9%	0.2%	2.5%	12.8%	1.8%	44.4%	8.3%	31.5%	28.7%	10.2%	13.1%	10.3%	32.6%	66.9%	25.5%	5.8%	2.4%	3.7%	23.5%	6.9%	27.1%	39.4%	0.0%
% Predator	1.2%	0.4%	3.8%	1.0%	1.0%	7.8%	7.7%	1.5%	1.5%	0.9%	7.0%	15.0%	2.8%	1.9%	0.2%	4.8%	0.2%	0.4%	3.3%	1.0%	0.4%	1.0%	0.2%	14.5%
% Shredder	0.2%	0.2%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	9.6%	1.8%	0.8%	0.2%	0.2%	0.2%	0.0%	0.0%	0.2%	1.1%	0.2%	1.0%	0.0%
% Scraper	0.2%	0.4%	14.4%	2.1%	0.0%	1.0%	0.0%	0.0%	1.2%	0.2%	5.9%	9.8%	6.0%	0.4%	2.7%	0.2%	0.0%	0.0%	0.2%	1.2%	1.5%	0.0%	3.3%	0.0%
% Other	0.8%	0.0%	0.6%	1.0%	0.2%	0.2%	0.0%	0.2%	0.0%	2.2%	9.8%	8.4%	0.2%	0.0%	0.0%	1.0%	0.0%	0.0%	1.2%	0.2%	0.2%	0.4%	0.4%	0.0%
Estimated Total Abundance/ft <sup>2</sup>	1,188	859	533	474	479	815	876	857	514	450	580	289	392	3,433	577	891	572	875	13,333	593	130	1,774	721	217



**Appendix B.6-1: Physical Habitat Quality Scores For San Diego County Bioassessment Monitoring Sites. October 2006.**

Measure	SMR-WGR	SMR-CP	SLRR-MR	SLRR-BR	BVR-CB	AHC-MR	AHC-ECR	ESC-HRB	ESC-EF	GVC-WB	SD-DDH	LPC-CCR
1. Instream Cover	14	4	12	12	17	8	5	8	15	8	15	15
2. Embeddedness	12	2	3	10	17	11	1	7	13	15	18	14
3. Velocity / Depth Regimes	15	3	13	15	15	12	10	5	15	13	14	15
4. Sediment Deposition	14	2	5	9	17	10	2	7	14	12	18	16
5. Channel Flow	20	15	15	13	15	12	14	15	16	12	18	17
6. Channel Alteration	19	15	16	12	15	15	7	11	15	14	19	15
7. Riffle Frequency	14	15	13	3	17	13	5	2	15	14	14	14
8. Bank Stability	16	15	13	14	12	8	8	12	13	6	18	13
9. Vegetation Protection	20	20	16	15	14	12	10	16	15	10	10	13
10. Riparian Vegetative Zone	20	20	17	16	14	12	6	18	17	10	13	15
<b>Total</b>	<b>164</b>	<b>111</b>	<b>123</b>	<b>119</b>	<b>153</b>	<b>113</b>	<b>68</b>	<b>101</b>	<b>148</b>	<b>114</b>	<b>157</b>	<b>147</b>

Measure	LPC-805	MB-RC	TC-TCNP	SDR-MT	SDR-1	CC-FB	SR-94	SR-WS	CC-C	REF-SC2	REF-DC	REF-BCR
1. Instream Cover	10	16	14	16	13	14	11	5	10	19	18	16
2. Embeddedness	11	14	12	15	11	17	5	6	5	14	10	12
3. Velocity / Depth Regimes	12	13	7	15	15	12	14	10	8	14	9	15
4. Sediment Deposition	10	13	10	14	7	17	7	7	8	12	8	12
5. Channel Flow	15	12	5	17	17	10	14	14	7	15	12	18
6. Channel Alteration	12	14	17	18	12	13	14	20	10	16	17	19
7. Riffle Frequency	9	13	10	17	8	15	7	2	9	19	15	18
8. Bank Stability	12	12	12	16	12	2	15	16	13	14	14	16
9. Vegetation Protection	12	16	17	20	16	6	17	16	13	19	18	19
10. Riparian Vegetative Zone	10	17	17	20	16	6	18	18	12	18	18	18
<b>Total</b>	<b>113</b>	<b>140</b>	<b>121</b>	<b>168</b>	<b>127</b>	<b>112</b>	<b>122</b>	<b>114</b>	<b>95</b>	<b>160</b>	<b>139</b>	<b>163</b>

**Appendix B.6-2: Physical Habitat Quality Scores for San Diego County Bioassessment Monitoring Sites. May 2007.**

Measure	SMR-WGR	SMR-CP	SLRR-MR	SLRR-BR	AHC-MR	AHC-ECR	ESC-HRB	ESC-EF	GVC-WB	SD-DDH	LPC-CCR	LPC-805
1. Instream Cover	13	6	10	11	9	10	7	14	11	15	16	11
2. Embeddedness	13	1	6	9	9	5	5	12	15	14	16	12
3. Velocity / Depth Regimes	15	6	16	15	12	12	11	15	14	14	14	13
4. Sediment Deposition	13	5	6	9	9	6	8	11	14	15	16	14
5. Channel Flow	18	15	16	16	13	14	16	16	14	13	13	15
6. Channel Alteration	17	16	16	14	16	9	11	14	13	16	12	11
7. Riffle Frequency	10	13	8	8	10	12	5	14	13	15	12	11
8. Bank Stability	15	16	14	13	8	11	12	14	6	16	13	16
9. Vegetation Protection	17	18	16	16	16	12	16	17	13	16	15	9
10. Riparian Vegetative Zone	17	19	18	17	16	11	17	17	12	15	15	9
<b>Total</b>	<b>148</b>	<b>115</b>	<b>126</b>	<b>128</b>	<b>118</b>	<b>102</b>	<b>108</b>	<b>144</b>	<b>125</b>	<b>149</b>	<b>142</b>	<b>121</b>

Measure	MB-RC	TC-TCNP	SDR-MT	SDR-1	CC-FB	SR-94	SR-WS	CC-C	TJ-DM	REF-SC2	REF-DC	REF-BCR
1. Instream Cover	15	15	16	14	14	9	7	11	3	16	15	17
2. Embeddedness	15	13	15	13	14	3	4	12	7	14	13	13
3. Velocity / Depth Regimes	14	12	15	15	11	10	14	10	11	14	10	11
4. Sediment Deposition	15	13	15	13	14	6	6	10	1	13	11	13
5. Channel Flow	13	12	14	16	8	12	14	8	4	14	12	16
6. Channel Alteration	13	16	15	14	12	14	16	17	3	15	18	18
7. Riffle Frequency	13	10	15	6	13	10	8	8	2	17	16	18
8. Bank Stability	12	11	15	14	11	15	12	14	2	15	18	17
9. Vegetation Protection	15	16	18	16	12	17	15	16	4	17	18	18
10. Riparian Vegetative Zone	15	15	18	18	10	18	18	19	0	17	20	18
<b>Total</b>	<b>140</b>	<b>133</b>	<b>156</b>	<b>139</b>	<b>119</b>	<b>114</b>	<b>114</b>	<b>125</b>	<b>37</b>	<b>152</b>	<b>151</b>	<b>159</b>

**Appendix B.7-1: Water Quality Data for San Diego County Bioassessment Monitoring Sites.  
October 2006.**

Parameter	pH	Specific Conductance (mS/cm)	Water Temperature (C)	Dissolved Oxygen (mg/l)	Average Depth (In)	Average Velocity (ft/sec)	Elevation (ft above sea level)
SMR-WGR	7.7	1.011	17.2	10.35	5.3	1.7	500
SMR-CP	8.1	1.428	15.3	6.44	5.7	1.3	110
SLRR-MR	7.9	2.726	18.0	7.81	6.7	1.5	70
SLRR-BR	7.9	1.938	18.0	6.68	7.3	1.5	10
BVR-CB	8.0	2.412	17.0	8.57	5.7	1.0	130
AHC-MR	7.9	2.316	18.2	8.57	1.8	1.4	360
AHC-ECR	7.8	3.545	19.3	16.48	5.7	0.8	40
ESC-HRB	8.4	2.065	19.7	15.65	12.7	0.4	630
ESC-EF	8.5	1.968	16.0	15.11	7.0	0.9	360
GVC-WB	8.1	2.586	20.2	8.67	4.0	1.3	340
SD-DDH	7.8	2.905	18.7	8.70	6.0	1.4	170
LPC-CCR	7.9	3.372	20.2	8.87	5.7	1.3	440
LPC-805	8.1	3.678	14.1	nr	5.7	1.7	80
MB-RC	8.0	3.915	18.5	11.45	3.5	1.0	65
TC-TCNP	7.7	7.925	17.4	7.69	1.5	0.6	55
SDR-MT	8.2	2.687	14.8	10.04	6.7	1.0	180
SDR-1	7.5	3.742	20.4	6.92	7.0	1.5	10
CC-FB	7.9	3.414	17.7	3.97	2.6	1.3	220
SR-94	7.8	2.744	14.5	2.87	3.0	0.4	320
SR-WS	8.0	4.544	15.4	4.70	7.0	0.2	40
CC-C	7.7	1.413	13.2	3.34	3.0	0.1	2550
REF-SC2	7.8	1.552	18.9	8.82	3.7	0.8	440
REF-DC	8.3	0.267	9.2	8.22	3.2	0.3	4950
REF-BCR	8.1	0.432	10.6	nr	5.0	2.4	2655



**Appendix B.7-2: Water Quality Data For San Diego County Bioassessment Monitoring Sites.  
May 2007.**

Parameter	pH	Specific Conductance (mS/cm)	Water Temperature (C)	Dissolved Oxygen (mg/l)	Average Depth (cm)	Average Velocity (ft/sec)	Elevation (ft above sea level)
SMR-WGR	8.0	0.977	19.3	11.52	4.7	1.2	500
SMR-CP	8.0	1.330	23.5	10.03	4.7	1.3	110
SLRR-MR	8.0	2.294	15.5	8.84	12.3	1.5	70
SLRR-BR	7.8	2.635	16.0	7.08	9.3	1.0	10
AHC-MR	6.4	2.810	16.8	7.00	3.2	1.3	360
AHC-ECR	7.9	3.054	18.3	12.68	12.0	0.4	40
ESC-HRB	8.4	1.848	23.8	17.32	14.0	0.7	630
ESC-EF	8.6	1.635	21.6	23.86	5.7	0.7	360
GVC-WB	6.6	28.042*	18.2	5.80	5.0	0.9	340
SD-DDH	7.8	2.404	17.8	7.18	6.3	0.7	170
LPC-CCR	7.4	2.860	17.4	7.58	4.7	1.3	440
LPC-805	7.9	3.305	16.8	9.11	6.3	1.2	80
MB-RC	8.7	6.145	20.1	8.94	3.5	0.5	65
TC-TCNP	7.7	4.689	16.1	5.86	4.0	0.2	55
SDR-MT	8.0	2.306	18.7	8.99	8.3	1.4	180
SDR-1	7.8	1.961	22.0	5.61	9.7	1.3	10
CC-FB	8.1	3.396	20.8	13.18	4.3	0.1	220
SR-94	7.5	2.237	17.2	5.03	4.7	0.4	320
SR-WS	7.5	3.446	21.3	7.98	3.7	0.9	40
CC-C	8.2	1.315	12.4	8.61	3.3	0.1	2550
TJ-BF	7.8	2.495	27.5	0.73	5.0	0.6	25
REF-SC2	8.2	1.596	15.2	9.36	4.3	0.8	440
REF-DC	8.7	0.218	9.0	9.87	2.0	0.6	4950
REF-BCR	8.0	0.330	24.7	11.00	5.7	1.1	2655

\*GVC-WB salinity was 17.2, conductivity checked with bottled water=0.168 mS/cm. SD-DDH sampled on same day.

Appendix B.8-1: Index of Biotic Integrity Scores for San Diego Bioassessment Monitoring Sites. October 2006.

Monitoring Reach	Total IBI Score	IBI Rating	% CF+CG		% Non-Insect Taxa		% Tolerant Taxa		Coleoptera Taxa		Predator Taxa		% Intolerant Individuals		EPT Taxa	
			Metric value	IBI score	Metric value	IBI score	Metric value	IBI score	Metric value	IBI score	Metric value	IBI score	Metric value	IBI score	Metric value	IBI score
REF-DC	59	Very Good	48%	10	13%	9	9%	8	3	5	10	7	31%	10	20	10
REF-SC2	47	Good	51%	10	23%	6	23%	4	5	8	7	4	34%	10	9	5
REF-BCR	35	Fair	59%	10	18%	7	32%	2	2	4	10	7	0%	0	9	5
SMR-CP	24	Poor	85%	3	29%	5	33%	2	3	5	9	6	0%	0	5	3
SD-DDH	17	Poor	83%	4	29%	5	21%	5	0	0	4	1	0%	0	4	2
CC-FB	15	Poor	72%	6	27%	5	27%	3	0	0	1	0	0%	0	3	1
GVC-WB	14	Poor	79%	5	37%	3	37%	1	1	2	5	2	0%	0	2	1
SMR-WGR	13	Very Poor	97%	0	36%	3	21%	5	0	0	5	2	0%	0	5	3
ESC-EF	12	Very Poor	90%	2	35%	3	39%	0	0	0	7	4	0%	0	6	3
TC-TCNP	12	Very Poor	74%	6	35%	3	41%	0	0	0	6	3	0%	0	1	0
AHC-ECR	11	Very Poor	87%	3	47%	0	53%	0	2	4	6	3	0%	0	2	1
BVR-CB	11	Very Poor	92%	2	44%	1	33%	2	0	0	8	5	0%	0	3	1
LPC-805	9	Very Poor	95%	1	38%	3	25%	4	0	0	2	0	0%	0	2	1
SDR-MT	9	Very Poor	94%	1	43%	1	39%	0	0	0	7	4	0%	0	5	3
LPC-CCR	8	Very Poor	91%	2	37%	3	47%	0	0	0	5	2	0%	0	3	1
MB-RC	8	Very Poor	83%	4	38%	3	38%	0	0	0	3	0	0%	0	3	1
SR-94	8	Very Poor	77%	5	50%	0	44%	0	0	0	6	3	0%	0	1	0
SDR-1	7	Very Poor	85%	3	75%	0	25%	4	0	0	3	0	0%	0	0	0
ESC-HRB	6	Very Poor	87%	3	64%	0	57%	0	0	0	6	3	0%	0	0	0
AHC-MR	5	Very Poor	84%	4	57%	0	36%	1	0	0	2	0	0%	0	1	0
CC-C	4	Very Poor	89%	2	50%	0	42%	0	1	2	3	0	0%	0	0	0
SR-WS	4	Very Poor	86%	3	50%	0	56%	0	0	0	4	1	0%	0	1	0
SLRR-BR	2	Very Poor	99%	0	50%	0	33%	2	0	0	1	0	0%	0	0	0
SLRR-MR	2	Very Poor	97%	0	54%	0	31%	2	0	0	3	0	0%	0	1	0

Appendix B.8-2: Index of Biotic Integrity Scores for San Diego Bioassessment Monitoring Sites. May 2007.

Monitoring Reach	Total IBI Score	IBI Rating	% CF+CG		% Non-Insect Taxa		% Tolerant Taxa		Coleoptera Taxa		Predator Taxa		% Intolerant Individuals		EPT Taxa	
			Metric value	IBI score	Metric value	IBI score	Metric value	IBI score	Metric value	IBI score	Metric value	IBI score	Metric value	IBI score	Metric value	IBI score
REF-DC	58	Very Good	56%	10	13%	8	13%	7	4	7	14	10	17%	6	21	10
CC-C	29	Fair	79%	5	20%	7	30%	2	4	7	8	5	0%	0	5	3
REF-SC2	29	Fair	89%	2	17%	8	21%	5	4	7	5	2	5%	2	6	3
REF-BCR	28	Fair	77%	5	17%	8	29%	3	1	2	6	3	1%	1	11	6
TJ-BF	17	Poor	73%	6	10%	9	30%	2	0	0	2	0	0%	0	0	0
SMR-CP	15	Poor	95%	1	36%	3	36%	1	1	2	7	4	0%	0	8	4
CC-FB	10	Very Poor	95%	1	29%	5	29%	3	0	0	2	0	0%	0	3	1
ESC-EF	10	Very Poor	99%	0	27%	5	27%	3	0	0	1	0	0%	0	4	2
AHC-ECR	9	Very Poor	97%	0	37%	3	37%	1	1	2	5	2	0%	0	3	1
MB-RC	9	Very Poor	96%	1	42%	2	25%	4	0	0	1	0	0%	0	4	2
SLRR-MR	8	Very Poor	100%	0	50%	0	13%	8	0	0	2	0	0%	0	1	0
SMR-WGR	8	Very Poor	97%	0	35%	3	41%	0	1	2	3	0	0%	0	5	3
GVC-WB	4	Very Poor	92%	2	56%	0	33%	2	0	0	1	0	0%	0	1	0
LPC-805	4	Very Poor	98%	0	44%	1	33%	2	0	0	2	0	0%	0	3	1
SDR-MT	4	Very Poor	94%	1	47%	0	41%	0	0	0	4	1	0%	0	4	2
AHC-MR	3	Very Poor	99%	0	50%	0	33%	2	0	0	2	0	0%	0	2	1
ESC-HRB	3	Very Poor	91%	2	57%	0	43%	0	0	0	2	0	0%	0	2	1
SR-WS	3	Very Poor	98%	0	46%	1	46%	0	0	0	4	1	0%	0	2	1
SD-DDH	2	Very Poor	97%	0	46%	1	38%	0	0	0	3	0	0%	0	3	1
SLRR-BR	2	Very Poor	100%	0	67%	0	33%	2	0	0	1	0	0%	0	0	0
LPC-CCR	1	Very Poor	97%	0	50%	0	42%	0	0	0	2	0	0%	0	2	1
SR-94	1	Very Poor	97%	0	50%	0	43%	0	0	0	1	0	0%	0	2	1
TC-TCNP	1	Very Poor	95%	1	50%	0	40%	0	0	0	1	0	0%	0	1	0
SDR-1	0	Very Poor	97%	0	80%	0	50%	0	0	0	1	0	0%	0	0	0