

APPENDIX J

City of Vernon Results



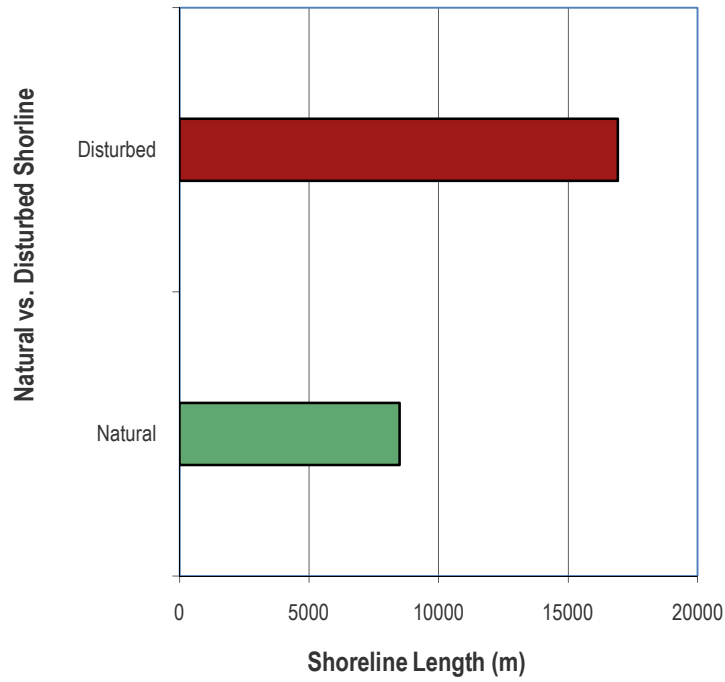


Figure 1: The percent of natural and disturbed shoreline.

Table 1: The total shore length of percentage of shore length along Okanagan Lake

	% of Shoreline	Shore Length (m)
Natural	33.41%	8485
Disturbed	66.59%	16914
Total		25399.2



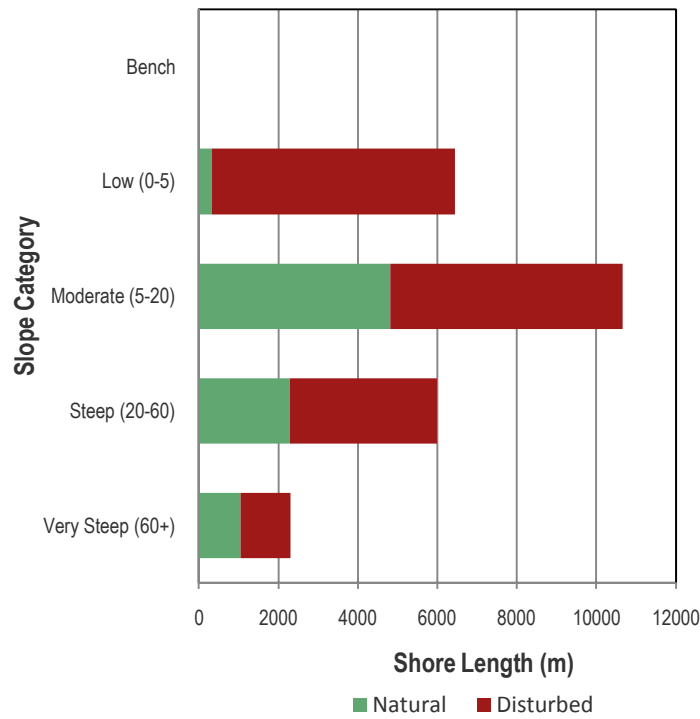


Figure 2: The length of natural and disturbed shorelines in each slope category.

Table 2: The percentage of natural and disturbed shore lengths within each of the different slope categories.

Slope	% of Total Shore Length	Total Shore Length (m)	Shore Length Natural (m)	Shore Length Disturbed (m)	% Natural	% Disturbed
Very Steep (60+)	9.1	2311	1053	1258	45.6	54.4
Steep (20-60)	23.6	5988	2294	3694	38.3	61.7
Moderate (5-20)	41.9	10654	4810	5844	45.1	54.9
Low (0-5)	25.4	6447	329	6118	5.1	94.9
Bench	0.0	0	0	0	0	0
Total	100.0	25399	8485	16914	33.4	66.6



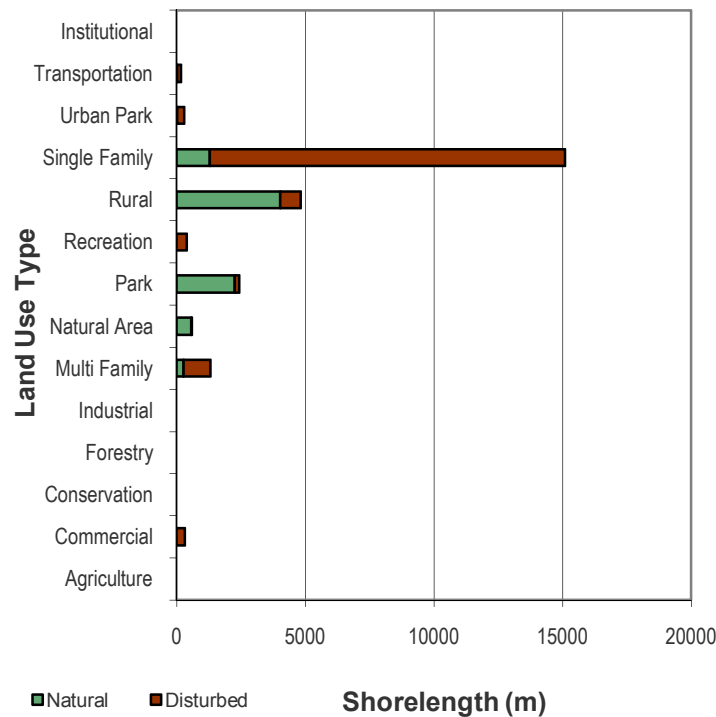


Figure 3: The length of natural and disturbed shoreline in each land use category

Table 3: The total length of natural and disturbed shorelines and their associated land uses around Okanagan Lake

	% of Shoreline Length	Shoreline Length (m)	Natural Shore Length (m)	Disturbed Shore Length (m)	% Natural	% Disturbed
Agriculture	0.0%	0	0	0	0	0
Commercial	1.3%	318	0	318	0.0%	100.0%
Conservation	0.0%	0	0	0	0.0%	0.0%
Forestry	0.0%	0	0	0	0.0%	0.0%
Industrial	0.0%	0	0	0	0.0%	0.0%
Multi Family	5.1%	1308	271	1037	20.7%	79.3%
Natural Area	2.3%	577	572	4	0.0%	0.0%
Park	9.6%	2437	2272	165	93.2%	6.8%
Recreation	1.5%	386	0	386	0.0%	100.0%
Rural	19.0%	4815	4016	798	83.4%	16.6%
Single Family	59.5%	15100	1300	13800	8.6%	91.4%
Urban Park	1.1%	291	28	263	9.7%	90.3%
Transportation	0.7%	170	25	144	15.0%	85.0%
Institutional	0.0%	0	0	0	0.0%	0.0%
Total	100.0%	25399.2				



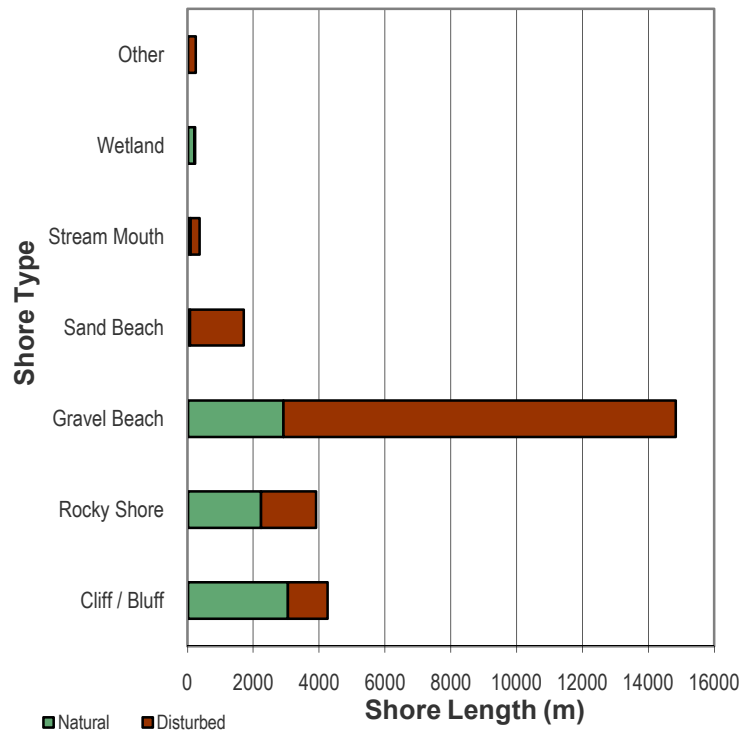


Figure 4: The length of natural and disturbed shoreline in each shore type category

Table 4: The total length of natural and disturbed shoreline and associated percentages within the different shore types that occur around Okanagan Lake

Shore Type	% of Total	Total Shoreline Length (m)	Natural Shore Length (m)	Disturbed Shore Length (m)	% Natural	% Disturbed
Cliff / Bluff	16.7%	4245	3031	1214.1	71.4%	28.6%
Rocky Shore	15.3%	3881	2214	1666.8	57.1%	42.9%
Gravel Beach	58.3%	14806	2897	11908.6	19.6%	80.4%
Sand Beach	6.6%	1682	66	1615.9	3.9%	96.1%
Stream Mouth	1.4%	345	83	262.6	23.9%	76.1%
Wetland	0.8%	205	194	10.2	95.0%	5.0%
Other	0.9%	236	0	235.7	0.0%	100.0%
Total	100.00%	25399				



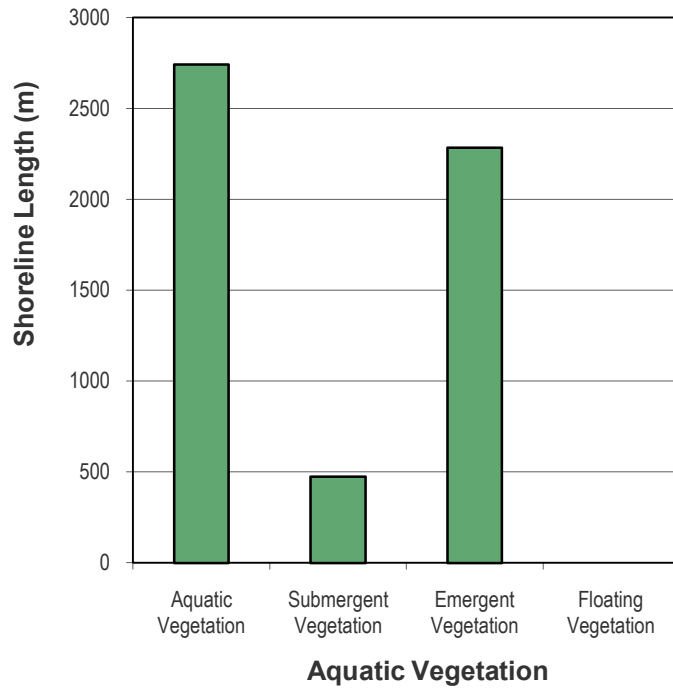


Figure 5: The shore length of each different type of aquatic vegetation.

Table 5: The total shoreline length and percentage that has aquatic, submergent, emergent, and floating vegetation along Okanagan Lake

Type	% of Total Shoreline Length	Shoreline Length (m)
Aquatic Vegetation	10.8%	2740
Submergent Vegetation	1.9%	473
Emergent Vegetation	9.0%	2281
Floating Vegetation	0.0%	0



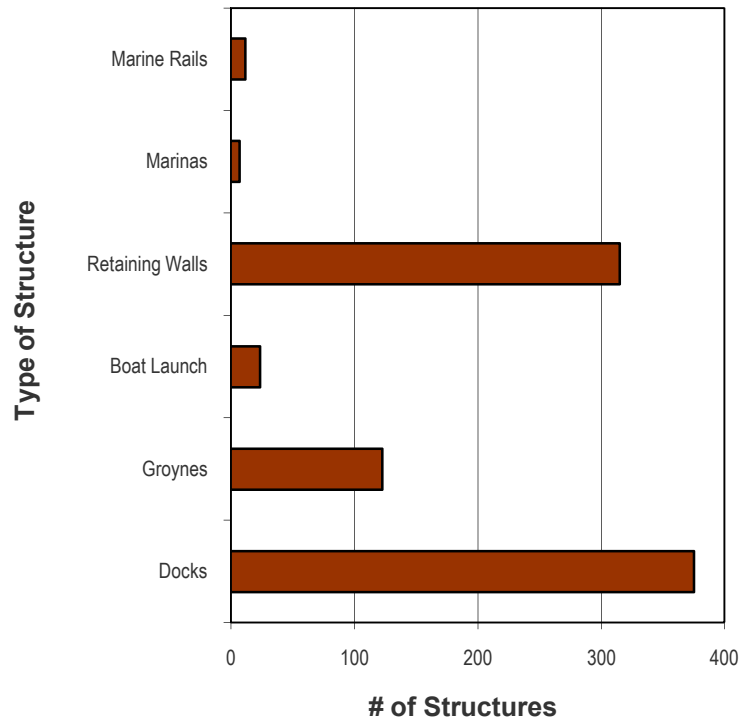
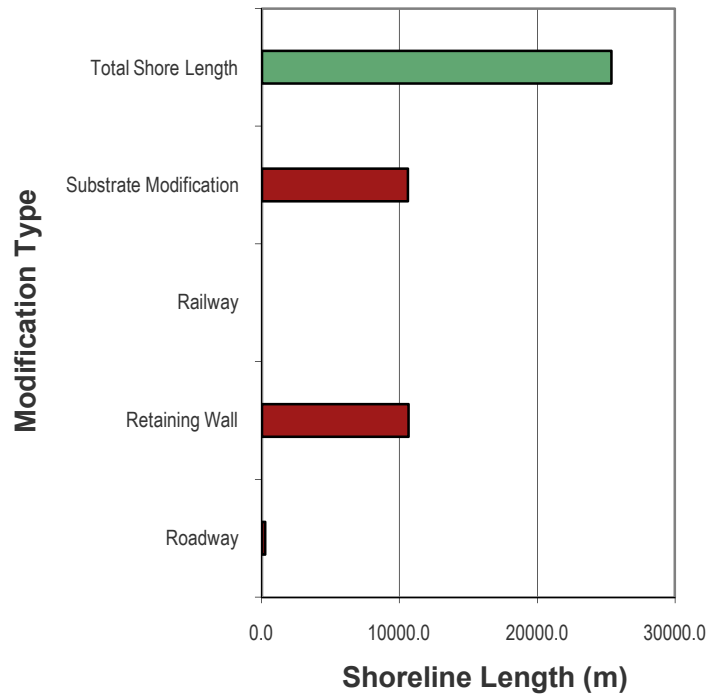


Figure 6: The total number of different types of modifications on Okanagan Lake

Table 6: The total number and density (# per km) of different shoreline modifications occurring around Okanagan Lake

Type	Total #	# Per km
Docks	375	14.76
Groynes	123	4.84
Boat Launch	24	0.94
Retaining Walls	315	12.40
Marinas	7	0.28
Marine Rails	12	0.47



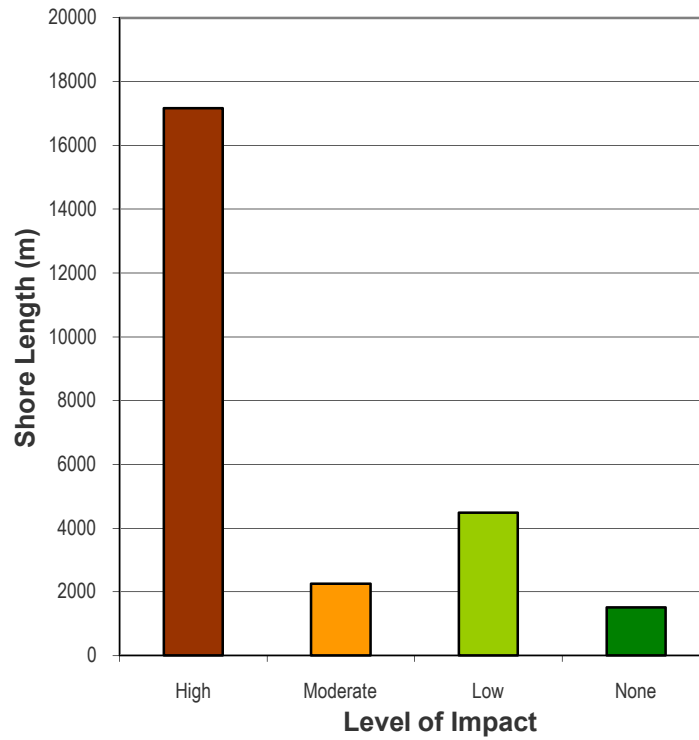


. **Figure 7:** The shore length of different shore modifiers were observed.

Table 7: The approximate shoreline length that has been impacted by substrate modification, road and railways, and retaining walls along Okanagan Lake

Category	% of Shoreline	Shorelength (m)
Roadway	1%	262.6
Retaining Wall	42%	10650.3
Railway	0%	0.0
Substrate Modification	42%	10616.8
Total Shore Length		25399.2





. **Figure 8:** The shore length of different levels of impact on Okanagan Lake..

Table 8: The Level of Impact around Okanagan Lake (High > 40%, Moderate (10-40%), Low (<10%), None (0%))

Level of Impact	% of Shoreline	Shore Length
High	67.57%	17163
Moderate	8.84%	2245
Low	17.63%	4479
None	5.95%	1513
Shore Length		25399.2



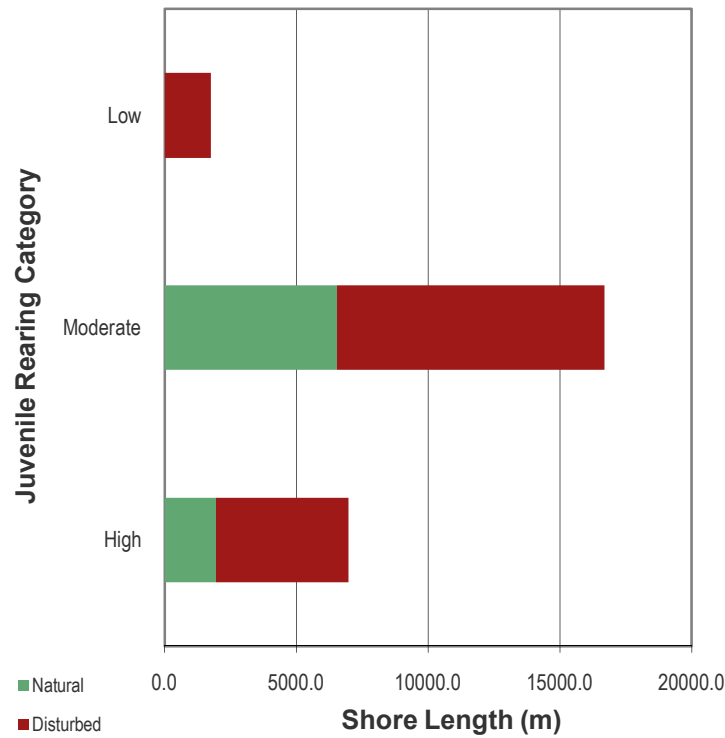


Figure 9: The natural and disturbed shore length of areas classified as having and High, Moderate, or Low Juvenile Rearing ranking.

Table 9: The shore length and percentage of shoreline areas classified as having High, Moderate, or Low Juvenile Rearing Value on Okanagan Lake.

Juvenile Rearing Category	# of Segments	Shore Length (m or %)				Total
		Natural (m)	Natural (%)	Disturbed (m)	Disturbed (%)	
High	9	1940.8	27.9%	5022.9	72.1%	6964.1
Moderate	16	6544.3	39.2%	10150.8	60.8%	16695.5
Low	1	0.0	0.0%	1740.3	100.0%	1740.3



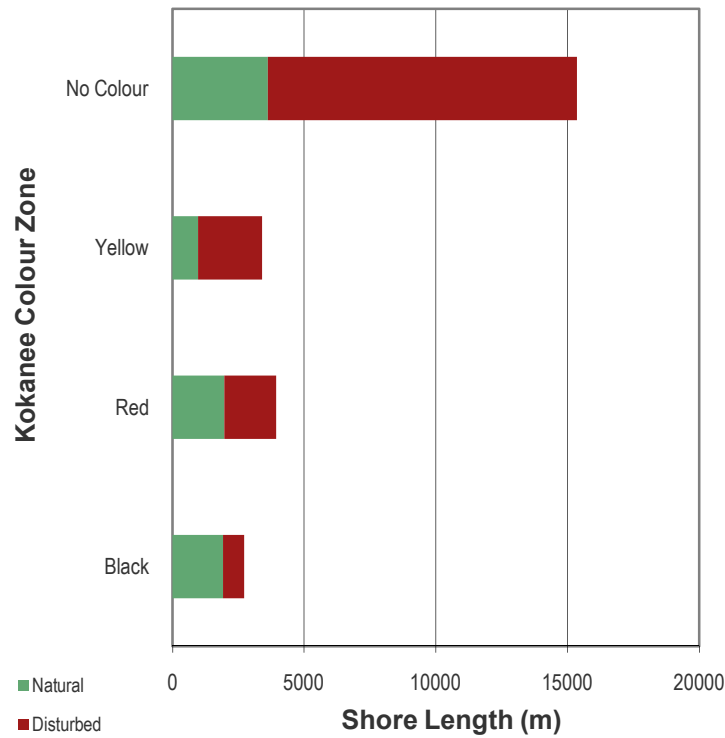


Figure 10: The length of natural and disturbed shoreline in the different shore spawning kokanee zones.

Table 10: The length of natural and disturbed shorelines within the different Okanagan Large Lakes Protocol Kokanee Shore Spawning areas.

Black		Red		Yellow		No Colour	
Natural	Disturbed	Natural	Disturbed	Natural	Disturbed	Natural	Disturbed
70.2%	29.8%	50.4%	49.6%	28.6%	71.4%	23.6%	76.4%
1914	813	1979	1948	970	2426	3622	11728



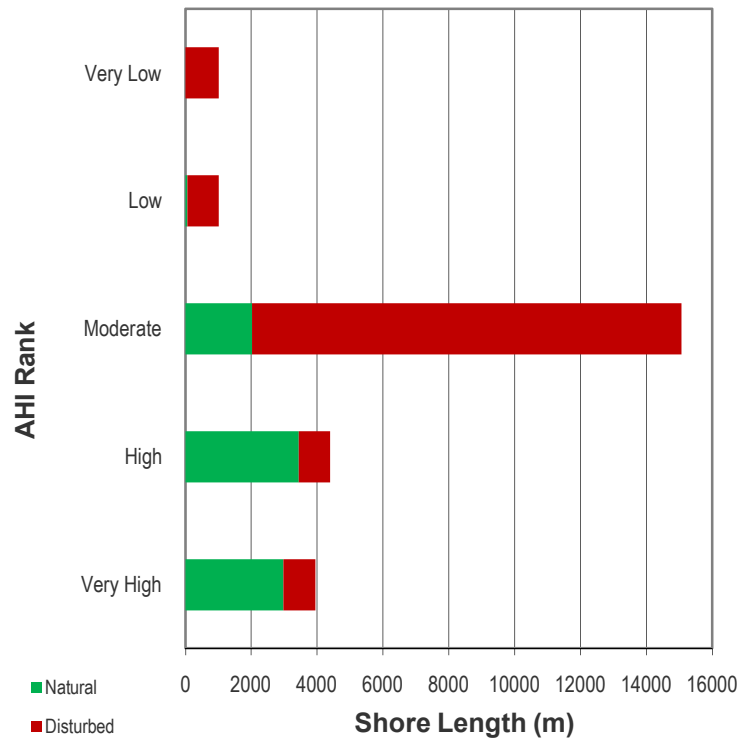


Figure 11: The length of natural and disturbed shoreline in the different AHI rankings.

Table 13: The shoreline that is natural and disturbed (m and %) within each of the different AHI rankings.

AHI Rank	Natural		Disturbed	
	m	%	m	%
Very High	2964.63705	75.3%	974.3111025	24.7%
High	3438.13419	78.2%	956.0535876	21.8%
Moderate	2027.182177	13.5%	13028.15718	86.5%
Low	55.21455801	5.5%	954.8389129	94.5%
Very Low	0	0.0%	1000.678766	100.0%

