

Foreshore Inventory and Mapping & Aquatic Habitat Index for Osoyoos Lake

Presented By:

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Natural Resource Biologists



The Process

Why was it developed?

- ✓ To inventory and document the current state of the foreshore
- ✓ Inform future policy development
- ✓ Develop a baseline of information to guide planning and land use decisions
- ✓ Enable a common understanding of sensitive shore areas
- ✓ Supply an accurate GIS data base that is easy to use
- ✓ Allow for monitoring of management objectives to be met
- ✓ Provide a framework to integrate information with upland planning



Shoreline Management

Comprehensive Three (3) Step Process

Step 1

- *Foreshore Inventory and Mapping* – Provides the background information regarding the shoreline.

Step 2

- *Aquatic Habitat Index (AHI)* – Provides an environmental sensitivity analysis of the shoreline, using existing biological data (e.g., shore spawning locations) and the FIM Database (biophysical parameters and modifications)

Step 3

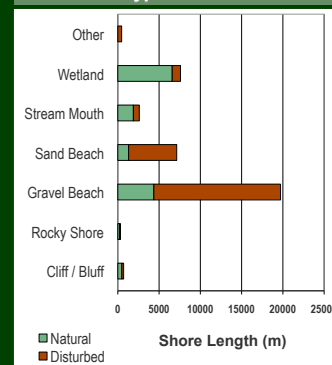
- *Shoreline Management Guidelines* – A comprehensive look at types of development and level of risk associated with them.

The information collected from these three steps helps facilitate an integrated, multi level approach to shoreline management.

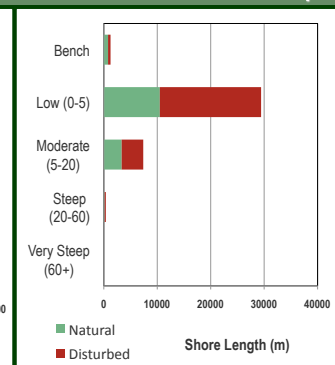


Biophysical Conditions

Shore Type



Slopes





Shoreline Modifications

Osoyoos Lake

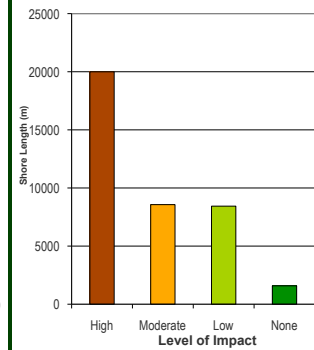
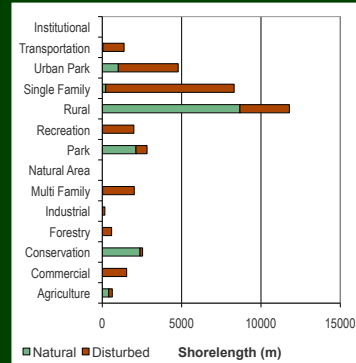
1. Substrate modification was prevalent along 60% of the shoreline
2. 289 Retaining walls covering 29% of the shoreline
3. 250 Docks with an overall density of 6.5 docks/km
4. 47 Concrete Boat Launches
5. 9 Marinas with over 6 boat slips
6. 16 Groynes or 41 / km - cause of some substrate modification impacts



Landuse

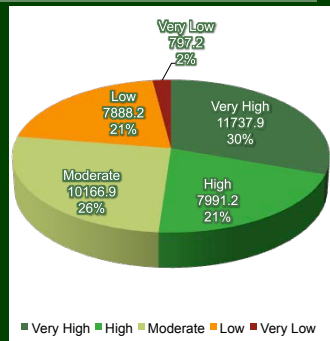
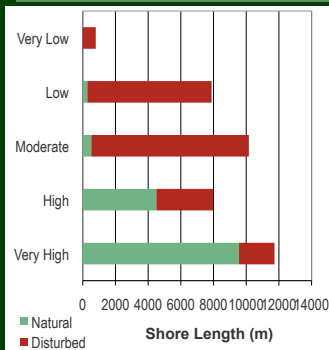
Osoyoos Lake

Slopes



Sensitivity of Osoyoos Lake

How impacted are sensitive areas of Osoyoos Lake?



Data is still in draft format. The AHL has not been reviewed and fully proofed.



Mapping of Osoyoos Lake

What maps were created for Osoyoos Lake?





Important Considerations

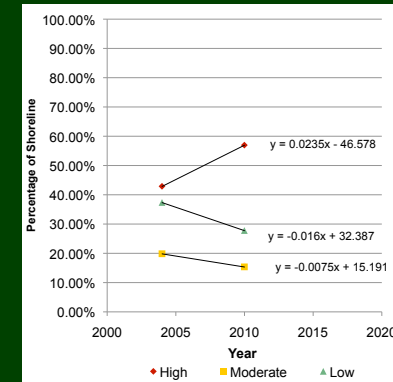
Critical to success

1. Development of an integrated shoreline and stream bank monitoring program
2. Education, Outreach and engagement to change *behavior*
3. Compliance and Enforcement of violations – Work Collaboratively
4. Set clear targets and objectives that can be tracked through change monitoring



Change Monitoring

How fast is change occurring on Okanagan shorelines?



Is it all Doom and Gloom?

No

1. High Value Shorelines have a lesser disturbance than lower value areas
2. The shoreline of still remains 38% natural
3. Most, if not all, important resources are present and can managed to maintain existing habitat values
4. The data collected is the baseline for a Shoreline Management Guidelines document (Step 3)

Special thanks to:

Town of Osoyoos
 Okanagan Nation Alliance
 Regional District Okanagan Similkameen
 Fisheries and Oceans Canada
 Ministry of Environment (now MNRO)
 Okanagan Basin Water Board
 Osoyoos Indian Band

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