



Natural Asset Management at a Watershed Scale

- WATERSHED STUDY PROJECT-SOURCE TO SEA
 - AQUIFER PROTECTION
 - CLIMATE ADAPTATION THROUGH NATURAL ASSETS
-

April 21 , 2023

Michelle Lewis

Natural Asset Technician

[visit-gibsons.ca](https://www.visit-gibsons.ca)



Source to Sea- Objectives

- ROLES OF NATURAL ASSETS
- POSSIBLE FUTURE ROLES OF NATURAL ASSETS
- QUANTIFY THE VALUE OF NATURAL ASSETS
- DEVELOP STRATEGIES FOR THE EFFECTIVE MANAGEMENT BASED ON THIS UNDERSTANDING





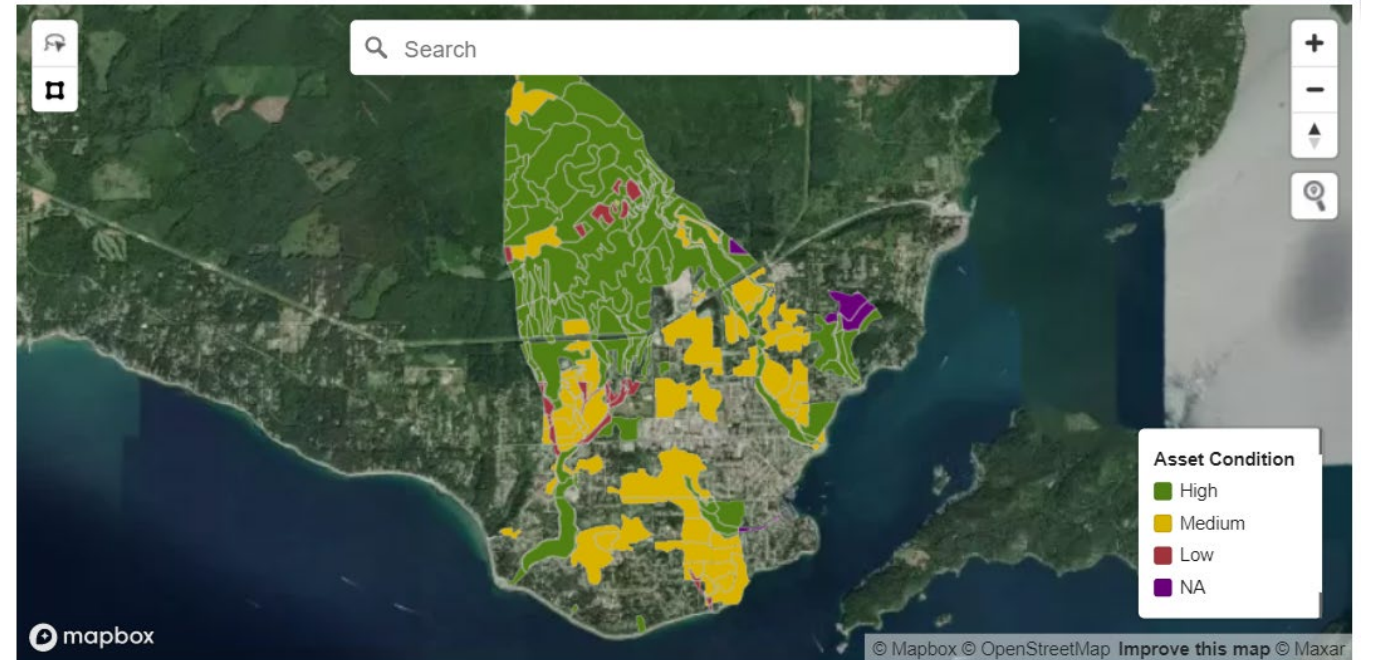
Source to Sea - Outputs

- CONDITION ASSESSMENT-DASHBOARD
- RISK IDENTIFICATION
- CO-BENEFITS VALUATION
- STORMWATER MODELLING
- MODEL INTEGRATION
- ROADMAP

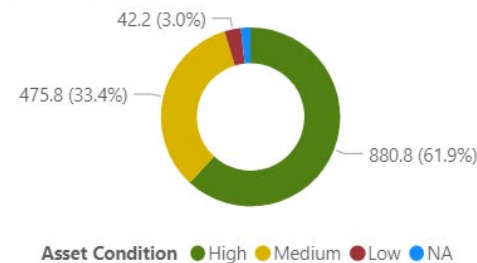
Town of Gibsons Natural Assets Inventory - Summary

Summary

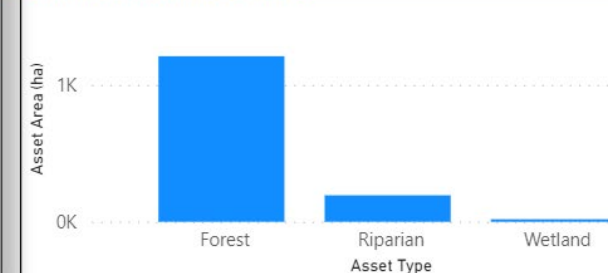
For



Asset Area by Condition



Total Area by Asset Type



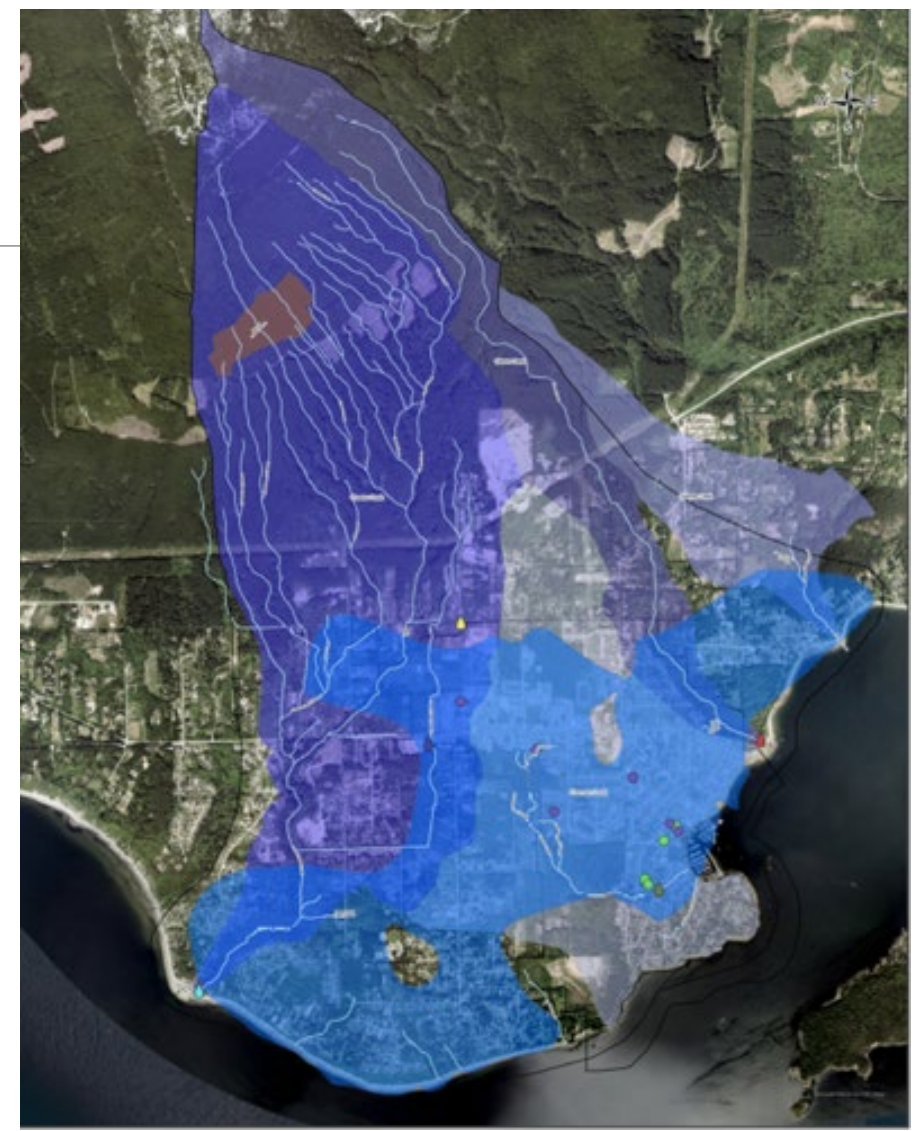
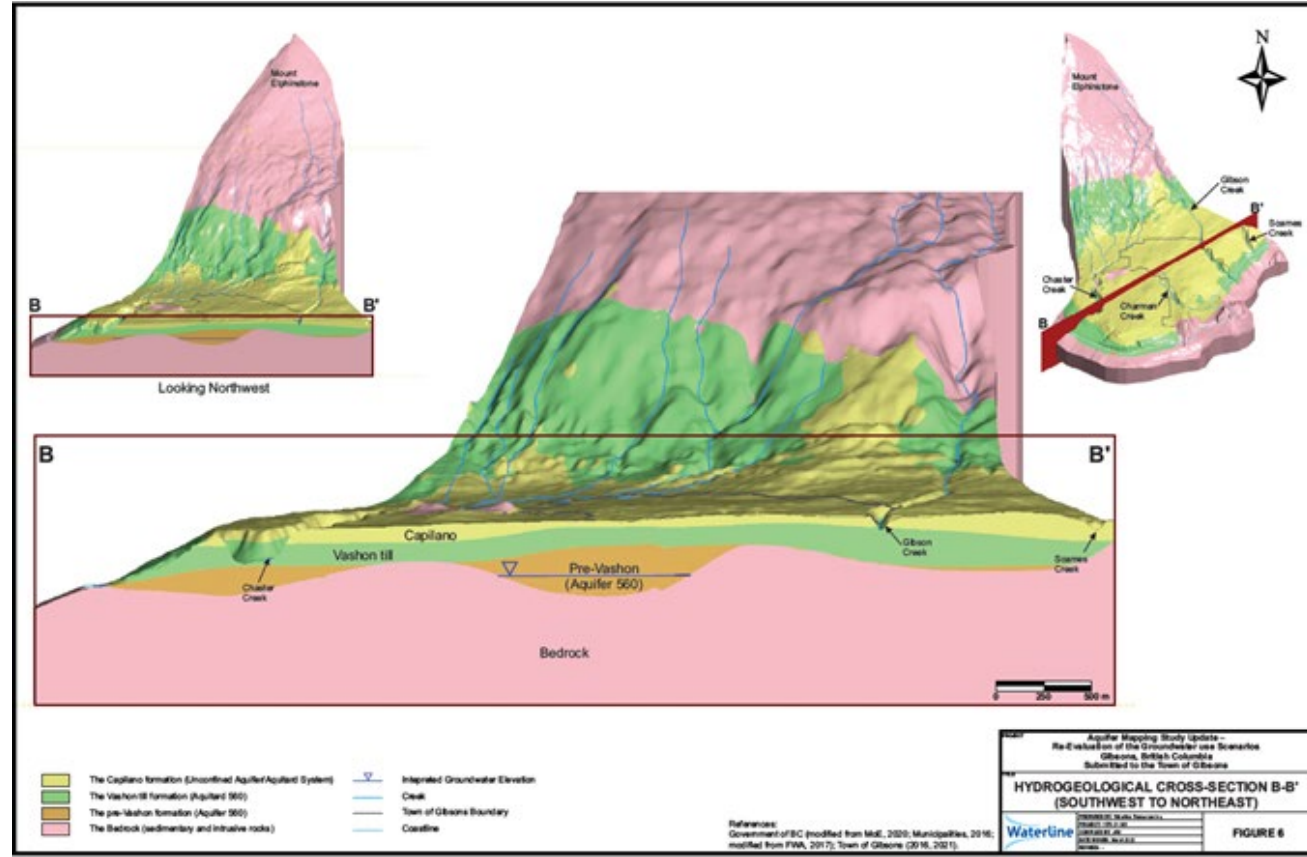


Source to Sea – Watershed Stormwater Modelling

| Management Option / Scenario | Description | Charman | Chaster | Gibson | Soames | Elsewhere |
|------------------------------|--|---------|---------|--------|--------|-----------|
| Forest Management | | | | | | |
| 1. Enhance/restore forest | Enhance/restore the forest in one location | | | | | X |
| 2. Decrease forest | Decrease forested area in four locations | | X | X | | |
| Riparian Management | | | | | | |
| 3. Increase riparian area | Increase riparian area in two locations | X | | | | X |
| Wetland Restoration | | | | | | |
| 4. Increase wetland area | Increase wetland area in four locations | X | | | | |
| 5. New wetland | Establish new wetland in one location | | X | | | |
| Climate Change | | | | | | |
| 6. ISMP 2018 Design Storm | Assume design storm from ISMP 2018 (24hr precipitation; 1:10yr storm; median climate projection for precipitation under RCP 8.5 by Urban Systems estimated using the IDF-CC tool created by the University of Western Ontario) | X | X | X | X | |



Aquifer 560





Aquifer Protection

- MONITORING WELLS
- PRECIPITATION AND TEMPERATURE STATIONS
- FLOW ACCRETION STUDY (INFILTRATION STUDY)
- UPDATE AQUIFER POLICIES
- WATERSHED MANAGEMENT AREA PLAN





Climate Adaptation Through Natural Assets Project

