

Mayne Island Stream survey report

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PURPOSE

The purpose of the survey was to identify the existing and potential fish bearing streams on Mayne Island and to map them using TRIMBLE equipment and a RIC certified operator.

SUMMARY OF FINDINGS

All medium and large drainage systems were identified from TRIM information, provided by the Islands Trust. These areas were then ground-proofed by a professional fisheries biologist and the mapping technician in February of 2007.

There were three streams identified that have existing or potential fish habitat. All three watercourses flowed through sections of Agricultural land.

1. **Deacon Creek** flows from the east from its origin in the Deacon/Heck Hill area into Village Bay. It has an existing stewardship group and it is being restocked yearly with Chum Salmon from the Goldstream hatchery on Vancouver Island. The contact for Deacon Creek is Bill Neill, a property owner in the Village Bay area. The upper reaches of the stream are on Agricultural land.
2. **Horton Creek** has two main tributaries. One tributary known as Hunt Brook begins in a springy area in the lowlands between Mt. Park and Heck Hill (On the 581 Glen Echo Road property). It flows southeast into a farm irrigation pond and through a natural area (Pither property) to Gallagher Bay Road, then into farmland (O'Brien property) and across Simpson Rd., into a large agricultural area /drained peat bog where it has been ditched for farming purposes. It then joins the other tributary and flows east into the estuary across Horton Bay Road. This stream was restocked for several years with Chum Salmon through the "Salmon in The Classroom Program" at the Mayne Island elementary school. There has been one oral record of Chum spawners seen since the restocking.

The second tributary of Horton Creek begins in a springy area in parkland off Montrose Road and flows south along Horton Bay Road where it then becomes a ditch on that farmland/peat bog mentioned above. There it combines with the Hunt Brook tributary and enters the estuary on Horton Bay. The local contact for Horton Bay Creek is Ron Pither.

3. **Campbell Bay Creek**. This stream flows through farmland off Campbell Bay Road into a large man made pond. The previous owner of the farm (Ardie

Wickham) enlarged the pond and restocked it with Rainbow Trout. Some of these became naturalized in the stream. The landowner also completed fish ladder work on the area where the stream drops steeply into Campbell Bay. There have been no recent reports of fish in the stream. The present landowners are Shanti and Don McDougall.

Mayne Island Streams -Watershed details

	Drainage Area Approx.	Length stream * Approx.	Barriers to fish	Comments	Watershed issues
Deacon	160 ha	1.9 km	none	Stewardship group has removed obstacles	Lack of summer water
Horton	340 ha	2.7 km Hunt Brook 1.9 km north Branch	Culvert may be impassable to fish Man made dam	The culvert under Simpson road may be passable for trout but it is a barrier for Chum Salmon The dam is upstream of Horton Bay road-it completely blocks the creek	Land Clearing in the upper watershed off Glen Echo Road, is causing serious flooding and erosion problems downstream on the farmland
Campbell	241 ha	0.4 km existing 1.2 km potential	Fish ladder Water quality	Some rock work has been done. Passable to fish at some flows Previous owner reported low summer oxygen levels in the ponds	This stream is “potentially fish bearing”

* includes seasonal areas

Small drainage areas from TRIM information

Five small streams were also ground-proofed during the two visits to Mayne Island. These were the ones flowing into Miners, Dinner, and Gallagher Bays and one was near Mariners Way. Another was a small tributary draining south into Horton Bay, not connected to Horton Creek. Even though it was February and all the larger streams had sufficient water to support fish, these small ones did not. So they were not mapped with the TRIMBLE equipment.

DISCUSSION

The three streams identified as potential or existing fish habitat are similar in size to small fish bearing streams on Salt Spring Island. For example Madrona creek on SSI has a watershed area of 161 ha, and Mansell Creek has a 272 ha watershed. Both of these creeks have sustainable populations of fish in them and have never needed to be restocked. So with some restoration work, all of the larger Mayne Island creeks identified in this report could support fish and therefore should not be damaged in anyway.

The erosion found on the O'Brien farmland property on Gallagher Bay Road is almost certainly due to increased peak flows in Hunt Brook, most likely resulting from clearing in the upper watershed. It is therefore recommended that any development of the watershed must include storm water planning and detention ponds. Otherwise there could be adverse affects on the farmlands downstream.

The summer water flows in all of the Mayne Island streams are dependent on the condition of springs and wetlands near the top of the watersheds. These can be easily diverted or drained during land clearing. It is therefore very important to protect any special wetland areas during the development process.

MONITORING

It is recommended that the Islands Trust or a local stewardship group monitor the streams over the winter months to determine what fish are present and where the problem erosion areas are.

RIPARIAN AREAS REGULATION

It is my opinion as a professional biologist and a QEP, that all three watercourses identified in this report are streams as defined by the Riparian Areas Regulation. It is important to note that this regulation does not apply to normal agricultural activities on farmland. The DFO Fisheries Act still applies to all land, including farms and institutions.

APPENDICES

Mayne Island TRIM showing approximate stream location. Copy of the Soils of the Gulf Islands Map. Trimble Maps showing stream data were sent separately.