IFA #1

Integrated Fisheries Assessment - Phase One
Swan Valley Sport Fishing Enhancement Inc.
Submitted by: Holly Urban & Melissa Johnson
2011

INTEGRATED FISHERIES ASSESSMENT - Part One

The Integrated Fisheries Assessment – Part 1 is a collaboration of various fisheries related projects in the Swan Valley Area conducted during the field season of 2011. This project was primarily funded through the Manitoba Fisheries and Enhancement Fund (FEF) and with support from project partners. The main objective of the project was to develop an integrated proposal to encompass both new and additional phases to past and present programs and research undertaken by SVSFE. Project activities included; fisheries and aquatic research on Whitefish Lake, Wellman Lake, the Swan River, and stocked trout lakes in the Duck and Porcupine mountains; walleye transfer/stocking for the surrounding area; and education seminars/events for youth & the public.

The full report of activities within the IFA #1 report is available, but for simplicity reasons, the report has been sectioned by location/activity to aid in sourcing material related to fisheries within the Swan Valley area. This document contains a summary of activities on the Swan River completed in 2011.

The Swan River

Walleye movement in the Swan River, prior to the fishway construction, was monitored through radio telemetry tracking in 2010. It was apparent the river provide habitat for walleye. In 2010 and 2011, adult walleye with numbered floy tags, were stocked in various locations of the river including down and upstream of the crossing. These efforts were to document habitat preference and fish barriers. In 2010, SVSFE supported the FEF project "Honoway Crossing- Swan River Fish Passage Fishway Construction" constructed by the Swan Lake Watershed Conservation District (SLWCD) to improve fish movement within the Swan River. The SLWCD and SVSFE then partnered to monitor the usage/success of the fish passage.

The 2011 monitoring of the fish passage was limited to photo documentation due to high water levels and the fishway remaining closed for the spring. Telemetry tagging was postponed to October 2011. The following information includes photo documentation of the newly constructed Honoway Fishway, stocking efforts via the Beautiful Lake Walleye Transfer, overview of species composition found in the Swan River during 2011 tagging, and telemetry study efforts to date. Future monitoring will provide insight on the fishway success and collaboration of telemetry data alongside aerial imagery of the river, will help identify any areas in need of improvement.

Swan River

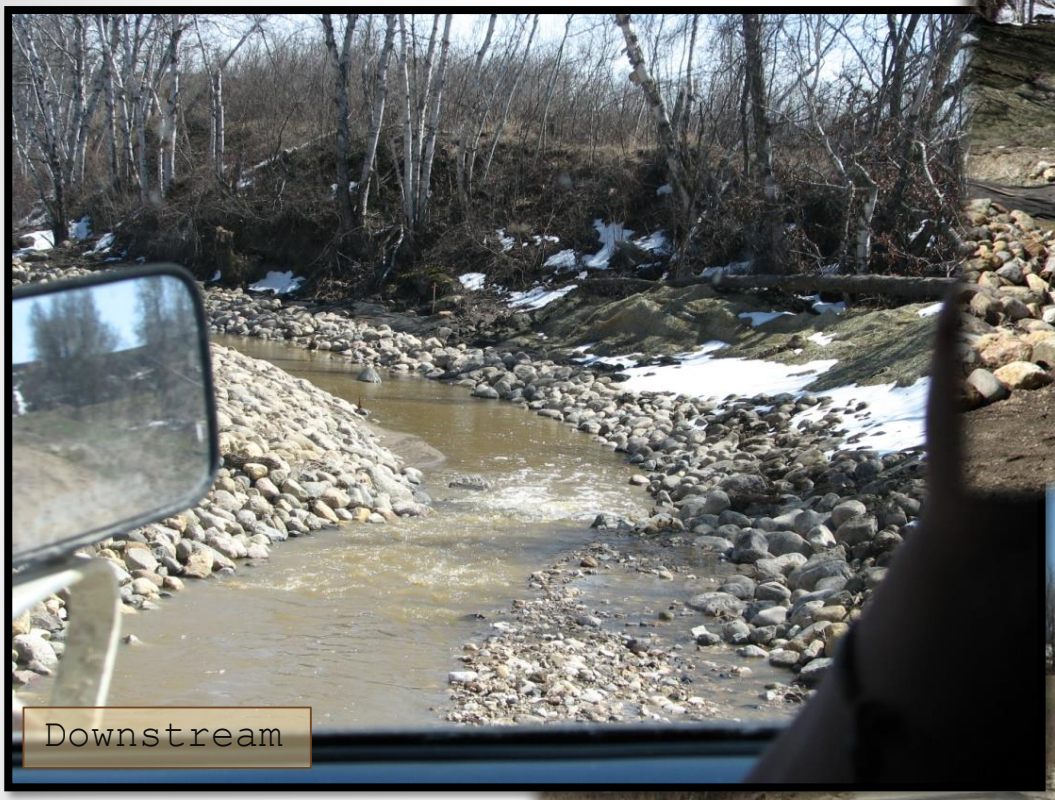
Honoway Monitoring

Objective: to monitor the usage/success of the fish way.

Due to the high water and unfavourable conditions the opening of the fish way was delayed and **remained closed** during the spring of 2011. Photo documentation was collected.

Swan River

Honoway Fishway



Completions were made to the fishway following spring runoff

Swan River

Honoway Fishway

Looking downstream from entrance

Fishway entrance

Looking downstream from entrance

Swan River

Honoway Fishway

Commencing breakup in 2012, flow will be monitored and usage will be assessed through visual observations, telemetry and sampling of fish in the fish way within IFA #2. Fish collected will be clipped to identify usage frequency. Water quality tests will be performed upstream and downstream of the fish way.

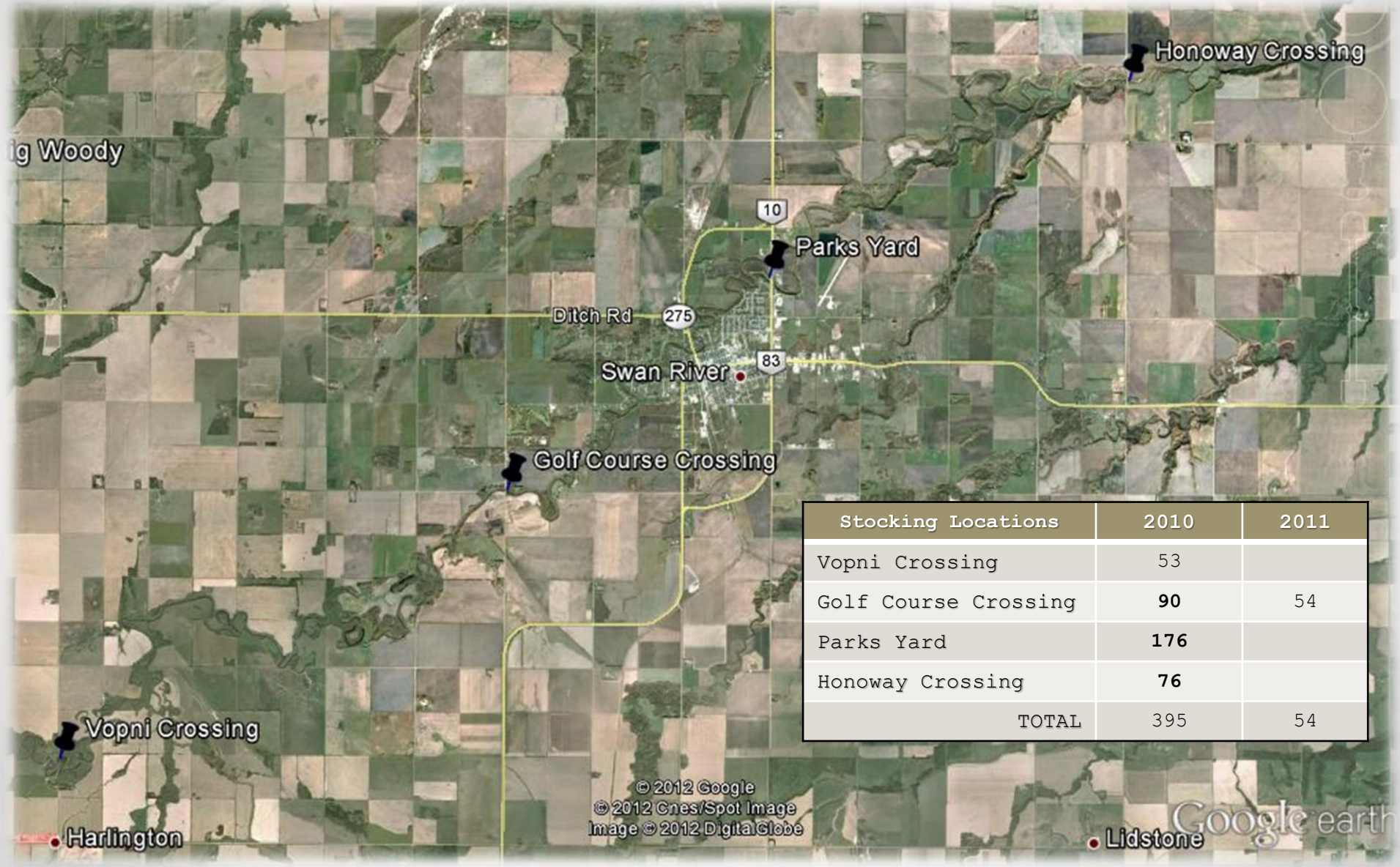
Swan River

Adult Walleye Stocking

Walleye were stocked from Beautiful Lake in the fall of both 2010 & 2011. A total of 342 out of 449 stocked walleye were tagged. (see IFA#1 - adult walleye transfer report for more info)

Swan River

Adult Walleye Stocking Locations



Stocking Locations	2010	2011
Vopni Crossing	53	
Golf Course Crossing	**90**	54
Parks Yard	**176**	
Honoway Crossing	**76**	
TOTAL	395	54

Swan River

Walleye Telemetry

Objective:

- **To identify movement through newly constructed Honoway fishway.**
- **To identify habitat preferences for walleye within the river.**

This is being done through telemetry results and angler recap submissions of tagged walleye from fall stocking of 2010.

Swan River

Walleye Telemetry

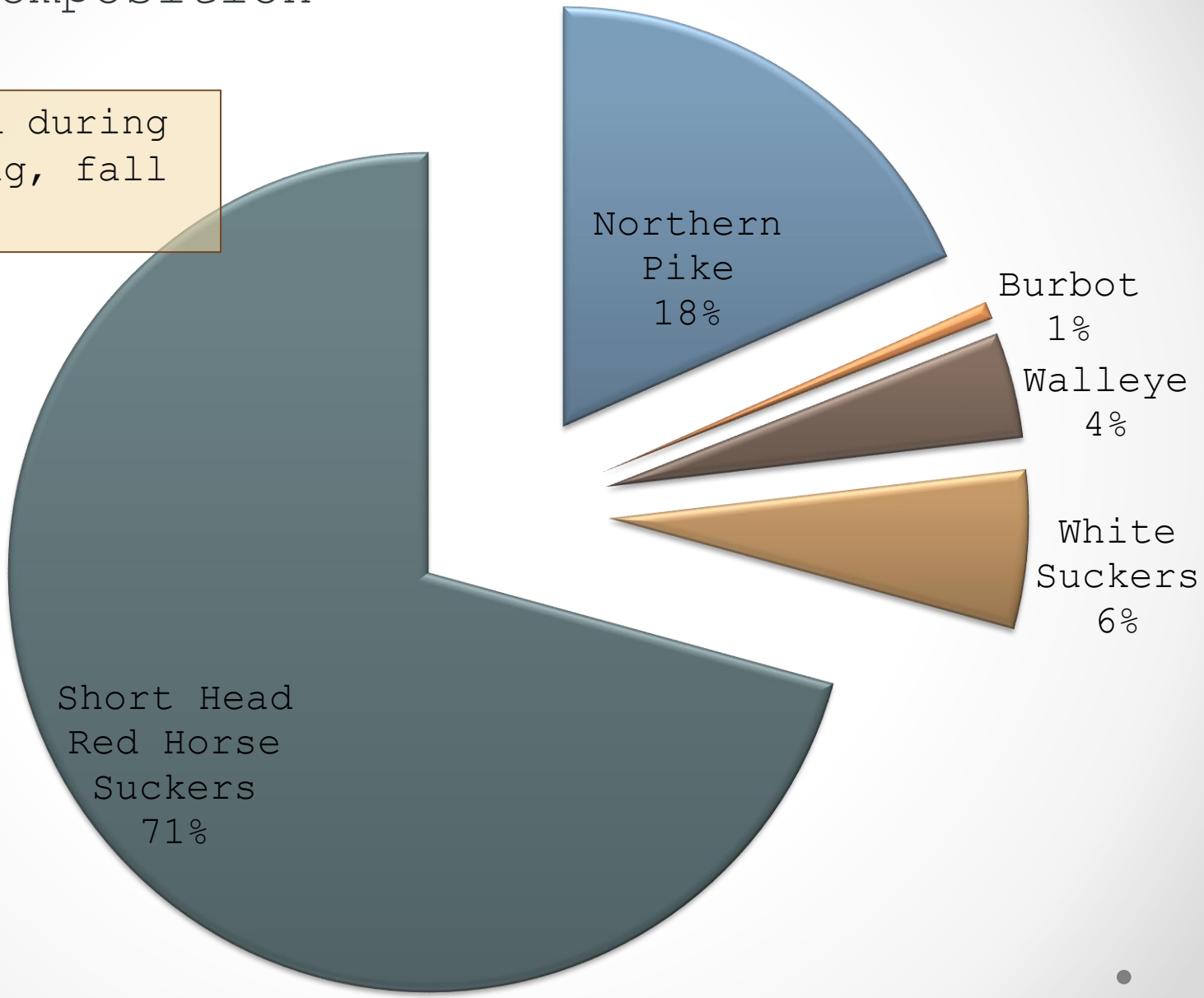
Tagging Locations

Tagging was postponed to October 2011. Tracking will continued throughout the winter of 2011/12. IFA #2 will include continuation of tracking with emphasis on the spawn of 2012 & movement through the newly constructed fish way.

Swan River

Species Composition

Species found during river sampling, fall 2011.



Swan River

Species Composition

Burbot = Total caught 2
Average Total Length = 354 mm
Average Weight = 300 g

White Sucker =
Total caught 18

Short Head Red
Horse Sucker =
Total caught 208

Northern Pike = Total caught 54
Average Fork Length = 461.1 mm
Average Weight = 797.7 g

Swan River

Walleye Telemetry

Date	Species	Fish #	Fork Length (mm)	Total Length (mm)	Weight (g)	Tag #	Location
OCTOBER-3-2011	WALL	SR-11-018	421	458	1000	49.211	GUST'S
OCTOBER-4-2011	WALL	SR-11-029	413	439	865	49.607	GUST'S
OCTOBER-5-2011	WALL	SR-11-043	410	422	765	49.625	GOLF COURSE CROSSING
OCTOBER-5-2011	WALL	SR-11-044	450	480	1075	49.597	GOLF COURSE CROSSING
OCTOBER-5-2011	WALL	SR-11-046	494	513	1370	49.291	GOLF COURSE CROSSING

A total of 12 walleye were caught during sampling period. **Average Fork Length = 367 mm** **Average Weight = 651.25 g.** A total of 5 walleye were tagged with telemetry tags.

Swan River

Walleye Telemetry

Monitoring will be continued throughout 2012 and success of crossing will be monitored in IFA#2

A Special Thank - You!

SVSFE would like to acknowledge the importance and benefits the Fisheries Enhancement Fund brings to our recreational fishery. The stamp is always a reminder that a portion of the license fee helps fund projects to educate the public and to ensure that future generations will enjoy fishing as much as the present population does!

A special thank you to the following individuals for helping to make the IFA#1 project a success! Ian Kitch, Lloyd Rowe, Bruno Bruederlin, Intermountain Sport Fishing Enhancement, Don Stokotelny, Kyle Murhead, Patrick Theissan, Joel & Marilyn Delaurier, Arch Dowsett - Blue Lakes Resort, Manitoba Fly Fisherman's Association, A.J Sutherland, SVSFE Directors, University College of the North, Eddie Chow, Parks Staff and to the individuals we may have missed.

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Project Partners

- Water Stewardship – Fisheries Branch

- Swan Lake Watershed Conservation District

- Glad/Wellman Lake Campers & Cottage Owners Association

- Manitoba Fly Fisherman Association