

Summary of Activities

Date: October 26th, 2015

**To: Ian Kitch
Fisheries Manager
Western Region**

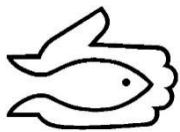
**From: Holly Urban & Brock Koutecky
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Subject: Wellman Lake Reef

Location: Wellman Lake Reef, Duck Mountain Provincial Park, 368956 5742306

Research History: Natural recruitment success of walleye has been an ongoing topic of conversation on Wellman Lake since the early 1990's. In terms of work history; (1) artificial enhancement of the "Wellman Lake Reef" occurred in 1993 (2) a walleye telemetry study was conducted from 1995-1997 by fisheries branch (3) post-spawn guzzling assessments occurred during the springs of 1992-1995 (4) a walleye spawning habitat suitability study was conducted by UCN in 2010 and (5) comprehensive walleye recruitment studies have been ongoing by SVSFE since 2010 including; telemetry studies (2011-2013), reef assessments/guzzling (2010-2013), a comprehensive spawn assessment in 2013, and ongoing recruitment monitoring (2010-present). It appears a considerable amount of work has been conducted on Wellman Lake over the years. For more information regarding natural recruitment in Wellman Lake please refer to: Walleye Telemetry: Wellman Lake & Swan River (FEF Project 12-025). Following the spawn assessment work conducted by SVSFE (2010-2013), along with a literature review of previous work, recommendations made by SVSFE technicians in the fall of 2013 are as follows:

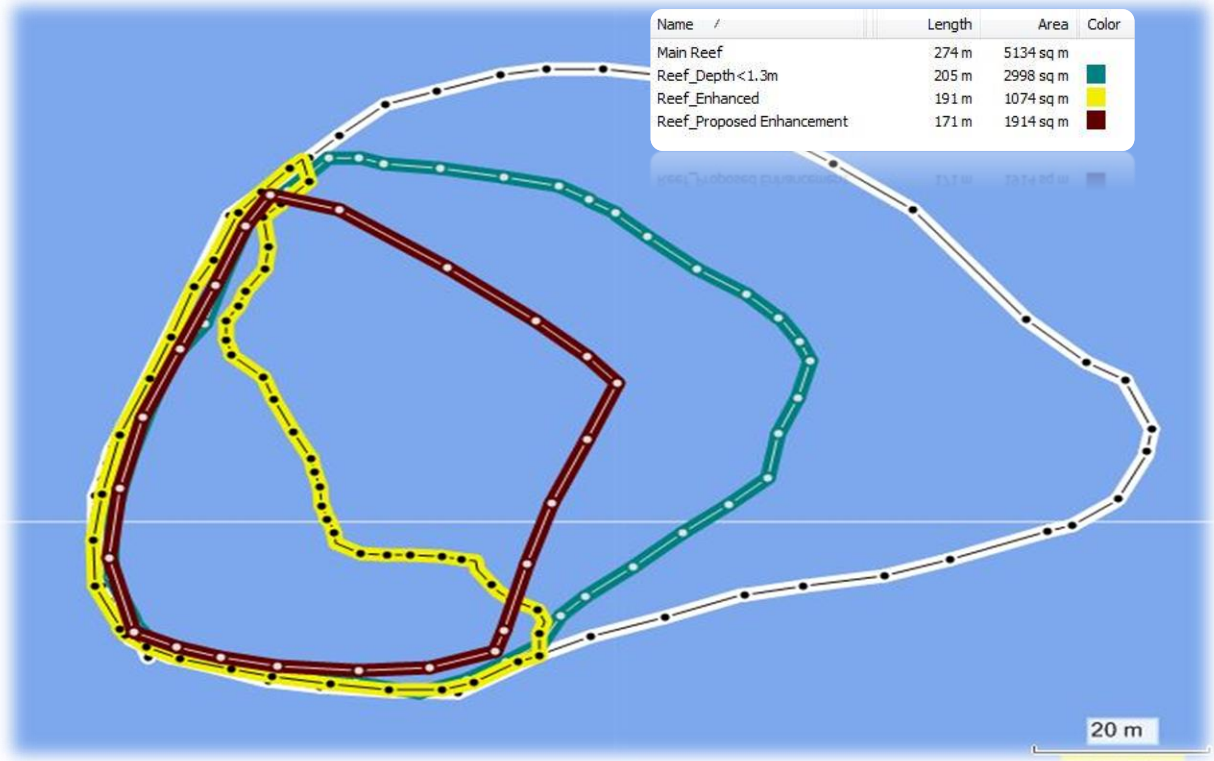
1. Guzzling results following initial reef enhancement (1993) were considerable; positive results determine reef enhancement was a success.
2. It appears that a large gap (15 years) of guzzling data is not present in the database suggesting a high variability of unknowns
3. Over time, the reef has silted over considerably (1993-Present)
4. Recent and historical walleye telemetry monitoring (1995-1997), and (2010-2013) have suggested that mature walleye visit the reef during critical periods
5. Four consecutive years (2010-2013) of insignificant guzzling results have been documented
6. Comprehensive spawn assessment (2013) determined no significant results
7. Suggestion (2013) was to continue guzzling on an annual basis to determine more significant results
8. Guzzling has not been conducted since 2013, as per time restraints from SVSFE staff and directors
9. Suggestion (long-term) was to initiate a "light enhancement" on the reef if guzzling results continue to provide negative results



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Current Recommendation: At current, the reef has been mapped for future enhancement if it becomes necessary. It is not recommended to pursue reef enhancement until it becomes evident following the suggested recommendations. The current recommendation is to conduct a 2-3 year OTC detection study on Wellman Lake beginning in 2016. It is known that walleye have utilized the reef in the past, but it is also know that recent guzzling results have been insignificant. For this reason, we suggest a "new approach" of determining recruitment success and OTC detection is arguably the most efficient method of determining recruitment success; however, it is also the only method never been tried on this particular lake. We are confident a OTC detection study will shed some light on the current questions regarding walleye recruitment in Wellman Lake.