



PORT GLASGOW MARINA

A Case For Action

PORT GLASGOW MARINA THE EARLY YEARS

Founded in 1958, Port Glasgow Marina was funded and built by local citizens. The marina at that time offered 6 slips and access, albeit limited to Lake Erie. These volunteers continued construction of the marina, excavating for and installing east and west piers providing channel access to the lake as well as boat launch ramps.

This family friendly marina then, as it is today is owned in partnership with West Elgin and managed by a dedicated group of volunteers, of the Port Glasgow Yacht Club (PGYC) which was incorporated as a not for profit volunteer organization June 3rd, 1963. Port Glasgow Yacht Club and Marina is one of the most successful, self sufficient and picturesque public marinas in Ontario.

The marina property consists of 3 acres of Port Glasgow Yacht Club owned property and 22 acres of Municipal owned property, which is the former Beattie Access Provincial Park. Port Glasgow Yacht Club, under agreement with the municipality of West Elgin, operates the marina at no cost to the municipality. All revenue from dock rentals and launch ramp fees go toward marina operation and improvements. The Port Glasgow Marina was expanded in 1994 in response to increasing community demand to its current configuration and capacity.

Although the marina only came to be in 1958, it must be noted that Port Glasgow has existed since the 1800(s) and was the port Scottish settlers came ashore to start their new life in Canada.

PGYC - MUNICIPAL PARTNERSHIP

As a result of the marina expansion, a co-management agreement was entered into December 22nd, 1994 between the PGYC and the Municipality, the former Township of Aldborough now known as the Municipality of West Elgin, for the delivery of recreational services to the community and surrounding areas. The rationale for this agreement was that; PGYC had the expertise in marine matters required to move the expanded marina forward.

As provided for in the Corporation of the former Township of Aldborough (now the Municipality of West Elgin) By-Law 94-56, section 12.1 provides for a Board of Management between the Municipality and the Port Glasgow Yacht Club. The Board of Management is comprised of 5 members of PGYC, the President, the Vice President, the Second Vice President, the Secretary Treasurer and the past President along with 2 members of West Elgin Council. The Board of Management is the strategic decision-making vehicle that enables the municipality and PGYC to work cooperatively for the betterment of the marina for the local community and all users.

PORT GLASGOW MARINA TODAY

Port Glasgow Marina is situated on the north shore of Lake Erie (42.5097° N, 81.6105° W) at the midway point between the harbours at Erieau to the west and Port Stanley to the east a distance of 72 statute miles.

From its humble beginnings the marina has evolved into a major tourist attraction and go to destination not only for the community of West Elgin but serving a broad catchment area from Windsor to the Niagara Region along the north shore of Lake Erie. The facility has an 80 slip (seasonal dockage) capacity and with three launch ramps that during the 2018 season provided for 2783 daily launches. For the 2019 season there have been 3612 daily launches. Seasonal launch passes purchased which provide for unlimited launches were 69 in 2018 and 70 in 2019. Each seasonal pass is used at a minimum of 13 times a season to be viable. It has been our observation that each boat launched has on average 3 persons on board. For 2018 seasons that amounts to **11079** and for 2019 to date **13566** individuals. Both years represent a significant influx to the local community and ergo positive impact on the economy. It should be noted that these figures do not include the number of persons that visit the Port Glasgow Blue Flag Beach which located immediately adjacent to the west of the marina.

The marina has and continues to be at capacity for seasonal docks each season with a waiting list. On average 3 requests per week for seasonal dockage are made to PGYC.

Port Glasgow Marina has not remained static and has engaged in continuous improvements and upgrades necessary for safety and to enhance user experience some of which are summarized below:

2003-2004, engineering, fabrication and installation of a handicapped accessible boardwalk and gas dock on the marina peninsula. Cost \$120,000.00.

2011-2012, remediation of the west launch ramp that included engineering, excavation and installation of actual ramp and construction of floating pre/post launch mooring dock. Cost \$150,000.00

2013-2014, remediation of east ramp fabrication of new center launch dock. Cost \$22,500.00

2015-2016, replacement of all docks in the marina. The existing docks installed 22 years previous had reached the end of their effective life cycle and had to be replaced to ensure user safety. The new docks were engineered and constructed to exacting standards. Cost \$142,000.00 that included engineering, fabrication and installation.

It must be noted the foregoing were major projects undertaken and the monetary amounts indicated do not reflect the required, day to day ongoing maintenance to ensure a safe functional environment for all users.

MAJOR ISSUES FACING PORT GLASGOW MARINA

1. MARINA CHANNEL

Lake Erie is the smallest in size of the Great Lakes and as well is the shallowest in depth. These factors coupled with its geographic location render Lake Erie unpredictable. The lake can move, within an hour or less from fair sea state conditions, light winds and negligible wave activity to near gale force winds and waves that can approach six feet. The later sea state conditions would challenge even the most seasoned mariner attempting to egress from the lake.

The orientation of the marina channel to the lake is north south. The prevailing winds are generally southwest to south. In less than optimal sea state conditions it is extremely difficult and for some mariners, impossible for others to navigate the channel to reach safe harbour in storm surge conditions. There have been at least 8 lives lost at Port Glasgow since 1995. Over the years there have been many documented incidents where boaters were forced to beach their boats to save themselves from drowning. Those mariners able to navigate the narrow channel in these conditions must then wait to retrieve their boats from the marina at the west ramp as the such storm surge conditions render the dual east ramp unsafe for use.

Port Glasgow Marina is the midway point between the harbours of Erieau to the west and Port Stanley to the east a distance of 72 statute miles. To put this in perspective, in moderate or optimal sea state conditions a boater would be able to travel this distance in three to three and a half hours, dependant on boat size and configuration. In severe conditions the fuel usage also increases exponentially. In less than optimum conditions the travel time increases directly proportionate to climatic and wave conditions. Port Glasgow is the only harbour between these two points where a boater can seek refuge.

Lake Erie is known for its abundance of fish species and fishing has been excellent for the past 3 years which has given rise to a significant upturn in marina usage. Marine biologists are suggesting that owing to steadily improving overall quality of lake water they anticipate continued record years for both sport and commercial fishing.

PGYC was and is acutely aware that remediation of the channel is required to make it safe and usable for boaters. Of equal and perhaps greater importance for emergency responders, fire, police and Coast Guard to launch rescue and unfortunately search and recovery missions from Port Glasgow Marina or to be able to access the marina from the lake during such events is a necessity. To this end, PGYC and West Elgin began the process of researching the viability of pier modifications to both east and west piers. Extensive marine study was conducted and preliminary designs for east and west pier extension and re-orientation was commenced in 2008. Necessary permits based on engineering recommendations were obtained.

MAJOR ISSUES FACING PORT GLASGOW MARINA

1. MARINA CHANNEL (continued)

The proposals for both piers and channel widening were estimated in 2010 dollars to be 3.5 million. It was very apparent that this was not a fiscal reality for a volunteer organization and a small municipality then and certainly not now with inflation to costs applied. A decision was made to undertake those projects previously mentioned that kept the marina operating and viable and while not abandoning the need for channel remediation but rather to stay the process. Each year both PGYC and West Elgin have budgeted for and set aside funds to be dedicated to this task at a future time.

In 2017 PGYC and West Elgin contracted Riggs Marine Engineering to conduct a review of the issues related to the channel. Riggs Marine Engineering conducted a review of the previous pier proposal and acknowledged that; the design was sound, and the engineering would do what was needed to be done to calm the channel. However, Riggs through his assessment of marina size and annual revenue stream confirmed that it was simply not an option that could be realistically considered.

Riggs conducted an extensive study of wave action and climatic conditions and a determined a lesser cost, but effective solution required for channel calming. Riggs has provided several options for a near shore breakwater that will have the desired effect of mitigating storm surge action in the channel from the predominate wind and wave action and to a lesser degree protection from east wind and wave scenarios. Riggs presented the various options at joint meetings with PGYC and West Elgin. The breakwater design is modular in nature and as such based on the size and placement of the breakwaters estimated costs range between \$700,000.00 and \$1,000,000.00. As this proposal is less intrusive into the lake environment it is assumed necessary approvals will be less onerous to obtain than what has been approved obtained.

2. HIGH WATER AND EROSION

Lake Erie has been subject to dramatic and unforeseen high-water levels. The lake has surpassed the high-water level of 1986 record as maintained by the United States Corps of Army Engineers. It is predicted by climatologists supported by analysis of chart datum that the high-water will continue into the 2020 season. This high-water phenomenon has three distinct but related impacts on Port Glasgow Marina.

MAJOR ISSUES FACING PORT GLASGOW MARINA

2. HIGH WATER AND EROSION (continued)

The current and continuing high-water only serves to worsen the channel issues previously identified. As well there is a clear and present danger that; greater storm surge volume from water levels will cause significant damage in this and future years to the docks in the marina basin during freeze/thaw cycles.

Erosion to the east of the east marina pier has resulted in the loss of approximately six feet of shoreline. This has measurable impacts to the marina operations being, loss of parking but more importantly the undermining of the surface of the east pier that will ultimately cause a seawall failure. While the greatest impact is on the east pier during eastern storm activity it degrades the west pier as well.

Erosion to the west marina pier not only impacts the surface integrity of the west pier but also the municipality Blue Flag public beach. Existing piers/weirs to the west of the beach need immediate remediation to lessen damage to both the beach and the marina.

PGYC has, under permit, commenced resurfacing in concrete both the east and west piers to prevent the undermining the sea walls that contain the piers. A seawall failure would be catastrophic to the marina. These projects are at the approximate halfway point. As well, again under permit PGYC has instituted shoreline erosion control with the placement of approved materials. For both these initiatives PGYC has expended in excess of \$70,000.00 in 2019 alone, and there is no expectation there will be any climatic relief from this erosion in 2020 and beyond.

SUMMARY

“To do that, which, if left undone would cause the situation to denigrate further”

Port Glasgow Marina is not designated as a “harbour” by the Government of Canada. Despite that lack of designation, it is what it is A harbour. Neither the PGYC nor the municipality of West Elgin have the financial capacity to do that which must be done alone. Neither entity has been the benefactor of Federal funding. We have been reasonably self sufficient, but these are issues that are beyond the fiscal scope of a volunteer organization and a small municipality.

Despite the associated risk, citizens have and will continue to access all that Lake Erie has to offer and will gain such access from Port Glasgow. We, PGYC and the municipality of West Elgin will continue to work to this end, and we hope that we can count on assistance from both our Federal and Provincial Governments to make the needed improvements that ensures Port Glasgow Marina remains a safe go to recreational destination.

APPENDICES

APPENDIX "A" Digital Ariel Images Port Glasgow Marina Calm Sea Sate

Marina Channel Looking North, West and East Piers



Marina East Launch Ramp



APPENDIX “A” Digital Ariel Images Port Glasgow Marina Calm Sea State (continued)

Channel Mouth and Blue Flag Beach Looking to the West



Overview of Marina Basin and West Launch Ramp



PORT GLASGOW MARINA

APPENDIX “A” Digital Ariel Images Port Glasgow Marina Calm Sea State (continued)

Marina Basin, Boardwalk, Gas Dock and PGYC Club House and Restaurant



Marina Channel and East Pier



APPENDIX “B” Digital Images Port Glasgow Marina Storm Surge Conditions

PGYC Administration Building and Restaurant



Marina East Ramp



APPENDIX “B” Digital Images Port Glasgow Marina Storm Surge Conditions (continued)

Marina Channel Look South to Lake, East Pier



Marina Channel Looking South to Lake, Both Piers



APPENDIX “B” Digital Images Port Glasgow Marina Storm Surge Conditions (continued)

Marina East Ramp Looking West



Marina Shore Line and East Ramp Looking West



APPENDIX “B” Digital Images Port Glasgow Marina Storm Surge Conditions (continued)

Marina Channel Wave Action



Marina Channel Wave Action



APPENDIX “C” Digital Images Port Glasgow Marina Basin High Water

Marina Basin Water Over Docks



Marina Basin Water Just Below Docks



APPENDIX “C” Digital Images Port Glasgow Marina Basin High Water (continued)

Marina Basin Water High Water Damage Gas Dock



APPENDIX “D” Digital Images Port Glasgow Beach Erosion

Port Glasgow Beach



APPENDIX “D” Digital Images Port Glasgow Beach Erosion

Port Glasgow Beach

