

# Scugog Lake Stewards Inc

## 2022 Annual Report



Kat Senyk

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[www.scugoglakestewards.com](http://www.scugoglakestewards.com)

Charitable Number 89254 7100 RR001





## MESSAGE FROM THE PRESIDENT



“A Healthy Lake Scugog and Watershed “. This vision statement sets out the mandate of the Scugog Lake Stewards very well and in very few words. But the challenge is complex. And we all have a role to play. Our Board of Directors, in conjunction with its advisors, our membership, and our communities continue to work toward that vision. We really don’t have a choice. And we all benefit. I am pleased to have served as President for a fourth year, and to have managed with the support of a very capable and motivated Board of Directors, to maintain our focus and momentum throughout that long period of health-related constraints and virtual engagement.

In 2022, the Board continued to implement a number of priorities set out in our Strategic Plan 2020-2023, and our Annual Work Plan. Our Plan is framed around six Goals: Alignment with others, Research and Monitoring, Projects, Communications and Education, Governance, and Membership.

Our science, research and monitoring program was again front and centre of our activities. We continued to examine the emergence and impacts of the new invasive plant, Starry Stonewort on our lake environment. We remain involved in collaborative work with the Kawartha Lake Stewards Association, Kawartha Conservation, Lake Simcoe Conservation Authority, other lake associations, several universities, and environmental agencies. We have identified additional research needs for 2023. This further work will identify and assess options for mitigation against this invasive and its harmful impacts to water quality and fisheries in particular. Monitoring of water quality in the lake and its tributaries, and including the near shore, continued with our partner agencies. Lake levels and dam operations were also monitored and reported on in conjunction with Parks Canada.

The Stewards continued to lead the fundraising for the proposed Lake Scugog Enhancement Project (LSEP), a project of the Township of Scugog and involving collaboration with Kawartha Conservation and other agencies. This is a \$ 5 Million project involving dredging of the Port Perry Bay nearshore including the marina and boat launch areas to increase depths and improve the shoreline and nearshore environment of Port Perry Bay. Through our representation on the Healthy Lake Scugog Steering Committee of Council, we continued toward finalization of the project design, securement of approvals and fundraising effort. With our collective success in securing major grants and other funding commitments for the project in 2022, we are now close to achieving our fundraising targets. A final community-level fundraising campaign is proposed for 2023.

On a smaller project scale, we initiated a new partnership with Ontario Streams and Kawartha Conservation to design and undertake future work on Williams Creek and potentially other tributaries of Lake Scugog, to address erosion, invasive species and water quality issues.

As always, staying in touch with our community is key to maintaining awareness of the state of the lake and engagement in the work that we need to do. In 2022, we were able to maintain an active Communications profile, through regular newsletters, social media and community activities.

We are thankful for the interest of our members and residents of Scugog that help keep us abreast of our environmental challenges and priorities. We are excited about our work ahead, with you.

Rob Messervey  
President

## 2020-2023 STRATEGIC PLAN

The Strategic Plan sets out our Vision and Mission and enables us to set priority actions so we are directing and using our resources, especially our most critical resource, people, in the most effective way possible. Our Plan is framed around six Goals:

- Maintain Strong Alignments
- Coordinate Research and Monitoring
- Progress on the Lake Scugog Enhancement Project and other Watershed Projects
- Communicate and Educate Effectively
- Promote Strong Governance
- Make Membership Attractive

Each of these goals is supported and implemented by Objectives, Activities and SMART Action Plans for the same period. An Annual Work Plan was developed for 2021 from these goals, to direct our activities.

The full 2020-2023 Strategic Plan is available at:

<https://scugoglakestewards.com/wp-content/uploads/2020/03/Final-Strategic-Plan-2020-2023.pdf>

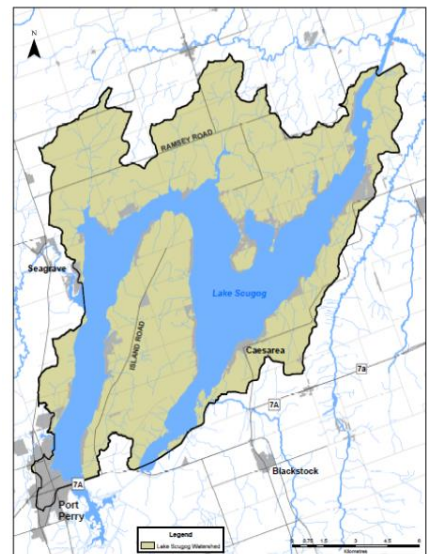
### Our VISION

#### *A HEALTHY LAKE SCUGOG AND WATERSHED*

The health of Lake Scugog is challenged due to its proximity to human activity.

Urban proximity can expose the lake to significant ecological stresses. These stresses, if unchecked, lead to lake ecosystem degradation. Being situated within 90 minutes of Canada's largest population center, Lake Scugog is an important destination for recreation and tourism, which are major drivers of the local and regional economy. Unchecked, lake ecosystem degradation leads to reduced recreational usage, reduced tourism and reduced economic benefits.

The Ecological Goods and Services (EGS) being provided by the Lake Scugog Watershed is estimated to be \$267M per annum, of which \$228M is attributed to tourism and recreational use (*ref. Kawartha Conservation / Friends of the Greenbelt Foundation draft Scugog watershed value assessment*).



## Our MISSION

*Through effective research, engagement, communications, and education, we will build awareness and participation with the community on focused efforts to enhance the lake and watershed environment.*

## Our FOCUS

*Our motivation is to preserve, protect and enhance Lake Scugog and its watershed environment. Our lake, like others, has challenges impacting its vitality and health long term. We are dedicated to working with partners to ensure the lake remains healthy, usable, and attractive for future generations.*

The lake's 172 km shoreline supports 13 shoreline communities, with the anchor being Port Perry, representing 44% of the Township's population. It also forms part of the traditional territories of the Mississaugas of Scugog Island First Nation. The Scugog Watershed is what defines the Township's communities.

## 2022 BOARD OF DIRECTORS

- |                         |   |
|-------------------------|---|
| • Rob Messervey         | President   |
| • Pat Bunting           | Vice President, Lake Scugog Enhancement Project             |
| • Jeanne Symes          | Treasurer   |
| • Dr. Tyler Harrow-Lyle | Chair, Research and Monitoring                              |
| • Lisa Hastings         | Chair, Organizational Services (until July)                 |
| • Tyler Harrington      | Director, Fisheries   |
| • Barbara Karthein      | Director, Communications and Education                      |
| • Chuck Heroux          | Director, Research and Monitoring                           |
| • Heather Bell          | Director at Large, Focus on Communications and Social Media |
| • Sebastian Coppa       | Director at Large, Focus on Membership (until July)         |
| • Cliff Moon            | Director at Large, Focus on Membership and Science          |
| • Jon Lane              | Director at Large, Focus on Communications                  |

## KEY ADVISORS

- |                       |   |
|-----------------------|---|
| • Jeff Forbes         | Councillor, Mississaugas of Scugog Island First Nation                          |
| • Tanner Liang        | Water Quality Specialist, Kawartha Conservation                                 |
| • Dr. Andrea Kirkwood | Professor, Ontario Tech University  |
| • Geoff Carpentier    | Chair, Region of Durham Environmental Management Committee, North Durham Nature |
| • Robert Rock         | Township of Scugog Councillor   |



## RESEARCH

The SLS Research Team continues to pursue a number of important objectives:

- To coordinate and support scientific research and monitoring programs with key stakeholders and residents.
- To foster community involvement in research and monitoring programs
- To broaden public understanding of the health of the lake and watershed

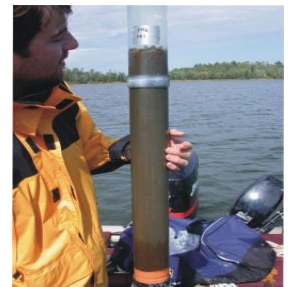
For 2022, in spite of not being able to land the Eco-Action Grant applied for last winter, a number of initiatives were carried out summer of 2022, and some important new information learned by the SLS Research Team.

### SCIENTIFIC RESEARCH

While the lake looks completely different each year, there are some commonalities that can be observed. The western arm of Scugog sees far more human development than the eastern side where a much more successful growth of invasive species, like Starry Stonewort was observed in 2022. Additionally, in 2022 the team, in collaboration with Dr. Brian Ginn of Lake Simcoe and Region Conservation Authority, Dr. Stephanie Melles of Toronto Metropolitan University and Dr. Andrea Kirkwood of Ontario Tech University identified, for the first time, evidence of sexual reproduction in charophytes since monitoring began in Lake Simcoe in 2010. Although we are not sure what this means for the future of the lake, or the region's lakes (Lake Scugog being the headwater lake for the Trent-Severn Waterway), it is certainly a development of concern. In addition to this discovery, through ongoing collaborative works the team identified similarities between the two large inland lakes. Time was spent on both lakes evaluating oxygen conditions and fish habitat quality., where it was identified that Eurasian water milfoil was beneficial fish habitat, contrary to Starry Stonewort.



A tributaries evaluation was also carried out with the help of Brett Tregunno from Kawartha Conservation. As a result of this assessment, it was decided that for 2023, work should be focused on Williams Creek. For necessary funding, a new Eco-Action grant has been applied for. Ontario Streams would be the main liaison and administrator for this project; however, several volunteer opportunities will be available if successful.



As part of the Ontario Trillium Foundation grant that supported SLS's major research from 2017 to 2019, York University conducted a paleolimnology study of the sediment layers in the lake going back to when the Lindsay dam created Lake Scugog nearly 200 years ago. The studies report has now been received; an important addition to the earlier reporting.

### MONITORING PROGRAMS AND COMMUNITY INVOLVEMENT

Plans for 2023 are somewhat dependent on the Eco-action grant. Notwithstanding, the SLS Research Team will be joining Kawartha Conservation, who monitor several lakes in the Kawarthas, when they monitor Lake Scugog. In addition to general information collection, the

Research Team will be looking closely at flora patterns. Also, in a new programme headed by Dr. Andrea Kirkwood of Ontario Tech University, the SLS Research Team will be evaluating different methods of plant control around existing docks at several sites around the lake. Volunteer residents will be asked to make their waterfronts available for this work.

## RESEARCH COMMUNICATIONS

The SLS Research Team continues to work with the SLS Communications group to facilitate and broaden public understanding of the health of the lake and watershed, issues that are impacting lake health while exploring interventions that might mitigate.

## LAKE SCUGOG ENHANCEMENT PROJECT (LSEP)

Lake Scugog is an artificially created shallow lake. Due to years of untreated stormwater runoff (high in nutrients and sediment), the Port Perry Bay has experienced dense growths of non-native aquatic vegetation and reduced water depths. This has eroded the bay's natural asset. Historically and presently, Port Perry Bay has had consistent higher levels of nutrients than other lake monitoring sites. As Lake Scugog is the recreational and tourism center of the Township, with outdoor, year-round activities such as fishing, boating, skating, and snowmobiling, it is vitally important to the local Scugog economy.



The Lake Scugog Enhancement Project (LSEP) is a \$5.5M environmental and recreation improvement project for Port Perry Bay, designed to address these challenges for the benefit of the whole lake. In addition to environmental, the social, economic, tourism and recreation benefits are also significant

LSEP is a Township of Scugog project being executed in partnership with Kawartha Conservation and the Scugog Lake Stewards (SLS); Kawartha Conservation is the technical lead while the SLS have fundraising responsibilities.

## DREDGING AND WETLAND CONSTRUCTION



Before

The project scope includes dredging an 8-acre area from the marina south into Port Perry Bay and using some of the dredged material for the creation of a 4-acre enhanced wetland contained by a 245-metre berm with a walking trail connecting four fishing pods.



After

The wetland is the key to the long-term viability of this intervention. As “nature’s kidney”, it will filter out sediment from storm water outfalls, reduce excess nutrients entering the lake and enable enhanced habitat diversity.

The wetland will be built in Port Perry Bay as it will help treat stormwater from 3 stormwater outfalls. The overall project will increase boating access, promote angling opportunities, extend the waterfront trail, and provide educational information.

The project’s detailed design is nearing completion along with the applications for permits required by the numerous government regulators that have jurisdiction over matters pertaining to the lake. Given the project’s complexities, the permitting process has been ongoing for some 5 years, with final permits now expected by the summer/fall of 2023. Fund raising efforts have run in parallel. Major donation commitments are now in place from the Mississaugas of Scugog Island First Nation, the Township of Scugog, the Region of Durham, Environment and Climate Change Canada, the Greenbelt Foundation, along with other smaller grants and donations. Grant applications to the federal Natural Infrastructure Fund and provincial Wetlands Conservation Partner Program are also pending. The success of these grants will make the project financially viable with continued community fundraising efforts also being planned for 2023, given that the final cost estimate is also pending, subject to final design completion.

### OIL GRIT SEPARATORS (OGSSs)

OGSs are multi-chambered structures designed to remove coarse sediments and oils from stormwater. In conjunction with the dredging and wetland construction project, two OGSs will be installed at Port Perry Bay at the Casimir Street and Baagwating outlets to the lake, thereby reducing the flow of sediments into the wetland. The Casimir outlet has been identified as a high priority area from the Port Perry Stormwater Management Plan. The OGS at Baagwating will treat incoming stormwater before it enters the Baagwating stormwater facility (Another Scugog Lake Stewards project). Construction and installation of the Casimir will be completed in March 2023 while the Baagwating OGS will be completed by fall 2023.



### FISHERIES OFFSET PLAN

In consultation with Fisheries and Oceans Canada (DFO) and in accordance with Federal *Fisheries Act*, it was determined that the dredging and construction of the wetland will have an initial Harmful Alteration, Disruption or Destruction (HADD) on fish habitat. To mitigate this impact, Kawartha Conservation has prepared a Fisheries Offset Plan for DFO for review and approval.

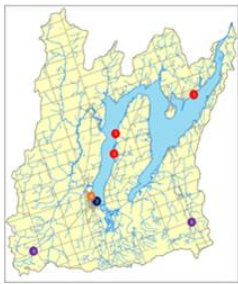
The Fisheries Offset Plan is an integral part of the LSEP and includes the following 5 elements:

1. Fish Spawning shoal enhancement.
2. Perched culvert mitigation
3. Woody structure installations.
4. Shoreline naturalization
5. Complementary data measuring (thermal regime and dissolved oxygen surveys, Muskellunge spawning habitat surveys, and fish community sampling).



## FISH SPAWNING BED CREATION

In recent years, Lake Scugog has suffered a decline in its prize sport fish such as walleye. Beginning in early 2018, the Scugog Lake Stewards applied to Parks Canada (Trent Severn Waterway) for the installation of a proposed fish spawning bed. The SLS, with support from the OFAH, and the MNRF planned and designed the project to be located at Oakdene Point, in the NE arm of Lake Scugog. The MNRF's volunteer-based Walleye Watch Program identified the area as a suitable location for the work. The work proposed involves cleaning sediment from the current shoal, and then laying locally sourced 4"-8" clean round rock to enlarge the current shoal.



Location of the fish spawning shoals (red dots) for the LSEP fish offsetting plan.

Since the original application was submitted, the review of the proposal has involved several agencies, now including Parks Canada (Trent-Severn Waterway), Transport Canada and Fisheries and Oceans Canada: legislative and regulatory requirements have also changed. Coincidentally, this project mirrors similar fish spawning bed installations that are now being suggested in 3 key locations around the lake to meet requirements of the fish offsetting plan requirement from Fisheries and Oceans Canada to compensate for the impact that the proposed Lake Scugog Enhancement Project in Port Perry Bay.

Kawartha Conservation is now taking the lead on the proposed fish spawning bed rehabilitation projects in collaboration with the Scugog Lake Stewards and the Township of Scugog. Several locations on the lake were surveyed in the summer of 2022. We are hopeful that that these projects will be approved this year so that installation can begin in the fall of 2023 and into 2024.

## COMMUNICATION AND EDUCATION

Raising awareness through communication and education is a critical enabler for engagement.



Scugog's economy and our community's enjoyment are dependent on a healthy Lake Scugog, yet it is vulnerable to many forces, some as old as its creation and many that are new.

As a result, Lake Scugog is in significant ecological decline because of climate change causing warming of the lake, dense proliferation of new invasive species and increased development changing the natural shoreland balance.

As a community we need to know and pass on to others the best ways to protect Lake Scugog for future generations. This is the mandate of the Lake Stewards' Communications and Education Committee, whose strategic objectives include:

- educate and foster widespread understanding of the condition of Lake Scugog and its watershed environment.
- popularize the concept of citizen science to develop information while also fostering support and involvement.
- gain support for, and participation in, lake related initiatives and projects.

## COMMUNICATION AND EDUCATION

Through 2022, the SLS were on social media extensively, maintaining an active website, as well as publishing new lake research articles. We are proud of our Lake Scugog-specific, almost daily, media posts reaching over 16 K through postings on our and others' group Facebook and Instagram pages. We also have some 45 professionally produced Lake Scugog education videos on YouTube.

In 2022, as we came out of the pandemic, the SLS were able to add to the Communications and Education team who are planning several big events for 2023.

We are expanding our usual August Lake Week to become Lake Month, during which many groups will be participating in both educational and fun projects about, or connected to, the lake and its tributaries. For instance, August 9, 2023 there will be a corn roast/burger night at Two Blokes Cidery with a video and speakers. On August 12, there will be a big "Lake Discovery Day" at the Latcham Centre in Port Perry featuring all sorts of interactive science exhibits and knowledgeable groups. The Scugog Chamber will be holding a water-oriented scavenger hunt. The Ontario Invading Species group will have a set-up to teach the importance of Clean, Drain, Drying of boats and equipment. There will be other events as well.





We are also restarting our Research Science Socials the first of which will be in May. You will be notified of the topic and time. Full community engagement is being encouraged with detailed information to be posted closer to the events (keep an eye on [www.scugoglakestewards.com](http://www.scugoglakestewards.com), as well as SLS's Facebook and Instagram posts). Don't forget to keep an eye directly on the lake by checking our webcam at the Port Perry Marina with a link on the front page of the SLS website.

Although we were constrained by Covid realities for much of 2022, the SLS were able to take part in a number of events such as the Dragon Boat Festival and Culture Days. *(At left, Scugog Sistoars, winners once again of the 2022 Dragon Boat Festival top team fundraising prize! 20% of funds raised go to Scugog Lake Stewards, Lake Scugog Enhancement Project.)*

## CITIZEN SCIENCE

Citizen Science involves the public voluntarily helping to conduct scientific research with those interested in participating lake monitoring initiatives precipitation monitoring, and near shore water quality sampling. We are working closely with Kawartha Conservation on their on their mid-lake water sampling and this year will have a volunteer taking regular water quality samples for the Ministry of the Environment, Conservation, and Parks', Lake Partner Program with the Federation of Ontario Cottagers' Association. Also, select, shoreline owners will be working with Ontario Tech. University and others on dock access lake-plant management studies. To get involved in our Citizen Science program please contact our Research Team through [info@scugoglakestewards.com](mailto:info@scugoglakestewards.com).

## OTHER COMMUNICATION & EDUCATION INITIATIVES

### SHORELINE EROSION CONTROL and NATURALIZATION



Shoreline erosion into the lake is also a contributor to the lake continuing to get shallower. The Lake Stewards support and promote good shoreline erosion methodologies that can fight waves and ice action. In addition to structural improvements, the Stewards work hard to encourage additional shoreline buffers all around the lake made up of native trees, shrubs and smaller deep-rooted plants. Shoreline naturalization has the possibility of great beauty as well as protecting the lake. Look into the Township's Scugog Water Fund through Kawartha Conservation for both design and financial help.

<https://www.kawarthaconservation.com/en/landowner-services/landowner-grants.aspx>



## CLEAN, DRAIN, DRY

The unintentional importation of non-native plant species such as Eurasian water milfoil (introduced +/- 1968), and now the plant-like alga called starry stonewort (+/- 2010) have had debilitating effect on our lake from a recreational, and a lake diversity perspective that involves both plant, fish and even zooplankton. 2021 saw a re-energizing of Eurasian water milfoil in wide bands around the shoreline, with starry stonewort and its cousins as a monoculture in the deeper areas. However, 2022 saw a complete take over by starry stonewort (SSW) and other charophytes which is a very disturbing finding.



SSW is especially negative as it depletes oxygen, forms an impenetrable barrier for fish, and is not edible for any species it seems.



Most invasive species have entered our lake at boat launch areas and spread out from there. We now have installed the large sign (shown to the left) at the very busy Port Perry municipal boat launch. In addition, we are partners with widespread organizations trying to both understand the new invasions and to try to find solutions. Ontario has regulated that as of 2022, after boating, it is the law that you must clean, drain and dry your boat, it's well and all equipment.

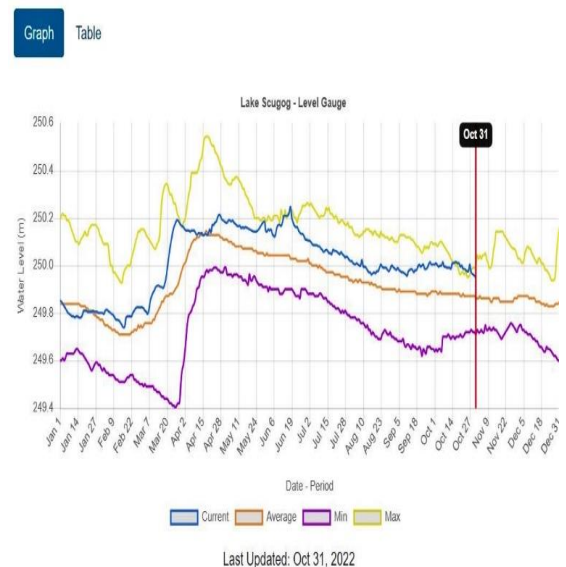
## LAKE LEVEL MANAGEMENT

Our job regarding water levels maintained in Lake Scugog has been and will continue to ensure that the Trent-Severn water management team is constantly aware of the impact system level adjustments have to our environment and economy. We are very grateful for citizen help providing many photos and reports to help us know the status of the dam and locks in Lindsay that control our lake.

For daily updates of Lake Scugog's water level go to 'Trent Severn Water Levels' on the internet or to:

<https://parks.canada.ca/lhn-nhs/on/trentsevern/info/infonet/niveau-eau-water-level>

and follow it through to find a graph such as you see below. Note that throughout the summer the level of the lake in 2022 was consistently above the top of the dam at Lindsay and flowing over the spillway and logs, which is the best that the TSW can do for us based on weather conditions.



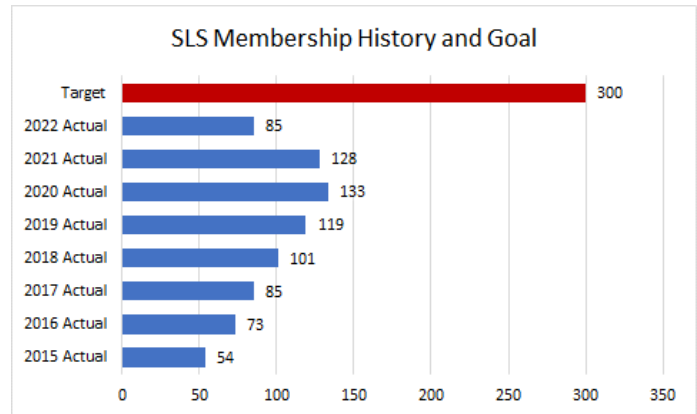
## MEMBERSHIP

### THE SCUGOG LAKE STEWARDS CANNOT FUNCTION WITHOUT MEMBERSHIP DOLLARS.

Membership dollars are critical for us to carry out our work, to do projects, do research and help to educate the community about how to best serve Lake Scugog. These dollars go into a “general” account to pay for insurance, bookkeeping, tax preparation and audit costs, software costs, printing fees and Annual General Meeting costs.

We continue to seek not only new members, but encourage existing members to renew annually, which did not happen in 2022, reference chart. A Family membership is only \$40.

Given the importance of a healthy Lake Scugog to the local economy, a prime goal for 2023 will be to grow our local community business memberships. Our drive includes gold (\$500), silver (\$250) and bronze (\$100) business sponsors.



For more information on how to donate, whether for a business membership or family membership, please visit our website at [www.scugoglakestewards.com](http://www.scugoglakestewards.com).

Tax receipts are issued for all donations.



Erin McEroy



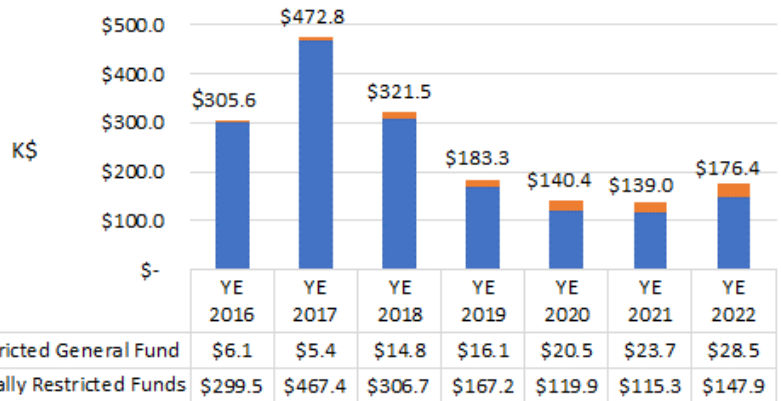
## 2022 FINANCIAL OVERVIEW

### NET ASSETS

The majority of year end assets are restricted funds held for LSEP (\$133.4K). These will continue to increase as designated fundraising donations are received, followed at year-end by a drawdown as the project proceeds.

*Restricted Funds are held in Reserve Accounts only to be used for specifically designated purposes.*

SLS Net Assets

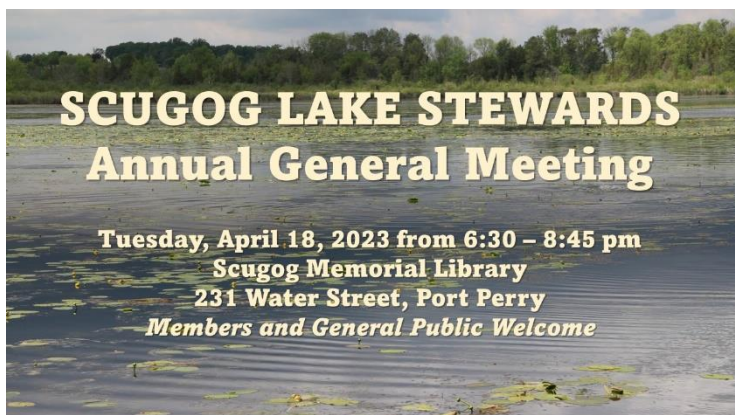
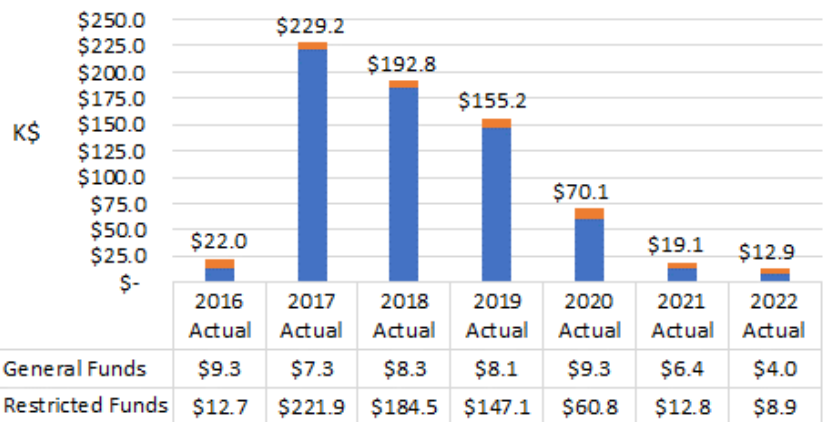


### EXPENDITURES

In 2022, General account charges of \$4.0K (insurance, accounting, CRA filing and communication support) were below budget.

\$8.9 in 2022 restricted account expenditures is attributed to Research (\$3.6K for accounting and boat rentals) and LSEP (\$5.3K for accounting, grant application support and campaign website development). LSEP expenditures continue to run below plan reflecting a push back in the project construction start due to permit delays.

SLS Annual Expenditures



**FINANCIAL STATEMENTS OF  
SCOGOG LAKE STEWARDS INC.  
DECEMBER 31, 2022,  
WILL BE POSTED ONCE APPROVED AT THE  
APRIL 18, 2023 AGM**