2023 Annual Report

Acton Shapleigh Youth Conservation Corps

Photo Credit: Jerry Cronin, SP

Goose Pond
Loon Pond
Mousam Lake
Square Pond

Sustaining and protecting water resources in the greater Mousam Lake & Square Pond Watershed.

Thanks to everyone who helped make the 2023 ASYCC season successful!

Program Funding & Support

- **Town of Acton, Maine**
- **Town of Shapleigh, Maine**
- **Mousam Lake Region Association**
- **Square Pond Improvement Association**
- **Province Lake Golf Course**
- **Davis Conservation Foundation**
- **Marc Motors**
- **Eldredge Lumber**
- **Rosenkrans Foundation**
- **Exit Key Realty**
- **Dan Davis Sales**
- **Private Donors**

Partial project funding provided in part by the Maine DEP through a USEPA Nonpoint Source Grant under Section 319 of the federal Clean Water Act and York County Soil & Water Conservation District.

2023 ASYCC Staff

David Burns, Program Director, Alfred

Courtesy Boat Inspectors

- **Donnie LaLievre - Acton**
- **Carrie Phinney - Shapleigh**
- **Erma Roberge - Rochester NH**
- **Andrew Stevens - Kennebunk**
- **Samone Gallagher - Acton**
- **Adrianna Mitchell - Sanford**
- **Natalia Rothwell - Acton**
- **Samantha Rumney - W Newfield**
- **Sam Dunbar - Acton**
- **Gary Rideout, Supv - Acton**

Erosion Control Crew

- **Gary Rideout, Supv - Acton**
- **Andrew Pepka - Pembroke NH**
- **Rowan Winchell - Sanford**
- **Luke O'Donnell - Hampstead NH**
- **Jordan Stuart - Sanford**
- **Ethan Allard - Shapleigh**
- **Rylee Santos - Sanford**
- **Carrie Phinney - Shapleigh**

2023 message from the ASYCC Board

Margarita Borgal

Terry Borgal

Joe Borst

John Chamberlain

Kent Haake

Scott Lansberry

Deborah Lansberry

Jane Thomas

The ASYCC completed its 23rd year as a non-profit organization created to protect our lakes in the Mousam Lake-Square Pond Watershed through the application of courtesy boat inspections, erosion control measures, technical assistance, invasive plant patrols and public outreach/education.

We continue to be proud of our program's youth and adult staff with direct ties to the towns we serve, and the dedication provided by our volunteer Board of Directors. This year we are also happy to acknowledge long-time staff member – Dave Burns. Dave has been our Program Director since 2021 and worked very hard this year to get our Erosion Control Crew (ECC) program back on track after the 2022 season cancellation. 2023 program highlights and details include:

- **Erosion Control Crew** - completed 21 total projects over a 9 week season. A very successful Best Management Practices (BMP) Workshop was completed in July as part of our 319 grant work in coordination with the Acton Wakefield Watersheds Alliance (AWWA). We plan to continue this collaboration in 2024 and beyond.
- **Courtesy Boat Inspections** - had another very high traffic year for boat inspections with a total of 7,074 boats. The number of plant fragments collected was 351 and of those collected, 38 were determined to be invasive Swollen Bladderwort found at the launch on Mousam Lake. This floating non-rooted invasive plant has taken hold in several areas on Mousam Lake and has raised concerns with Town officials, the Mousam Lake Region Association (MLRA) and landowners. The MLRA has launched a major effort to control the spread of this surface water floating invasive plant.
- **Invasive Plant Patrol (IPP)** - is made up of some of our most enthusiastic young student CBIs. They have been out this season assisting with the search and removal of the invasive Swollen Bladderwort in Mousam Lake.
- We cancelled our **Annual Golf Tournament** this year as the day was forecasted to be a complete washout. This was a difficult and painful decision and unprecedented for the ASYCC. We will try to never have to do this again. Each golfer was given a certificate for a round of golf at Province Lake Golf. Thanks to our many sponsors and golfers we still had a successful fundraiser.
- **The Davis Conservation Foundation** awarded us a substantial grant for 2023 for the second time. We will continue to apply for this grant which is awarded every other year to a worthy organization and hopefully we will continue to be successful in receiving this distinguished financial award in future years.

We thank you for your past and continued support of the important work the ASYCC is doing.

ASYCC Board of Directors:

Introduction

The Acton Shapleigh Youth Conservation Corps (ASYCC) is a non profit organization founded in 2001, working to protect Mousam Lake, Square Pond, Goose Pond and Loon Pond collectively known as the Mousam Lake-Square Pond Watershed.

Education

The ASYCC provides education, community outreach, technical assistance, courtesy boat inspections and the installation of erosion control practices in the watershed. The goal of the ASYCC is to sustain and protect the valuable water resources for its ecological importance as well as for the enjoyment of the local community, businesses and visitors.

Partnerships

The ASYCC is grateful to the Towns of Acton and Shapleigh, the Mousam Lake Region Association and the Square Pond Improvement Association for their ongoing financial support. In addition, fundraising occurs through the annual ASYCC Golf Tournament, grant opportunities through the State and private donations.

Locally Vested Employees

Using this local support, the ASYCC is able to hire local residents who have a vested interest in protecting the local waterways. Between the Courtesy Boat Inspection (CBI) Program and the Erosion Control Crew (ECC) Program, the ASYCC hires approximately 15-20 local residents.

Locally Lead Volunteer Board Members

Board Members

Joe Borst, **Treasurer**

Jane Thomas, **Donation Lead**

Scott Lansberry, **CBI & ECC Supervisor**

Kent Haake, **Grants/CBI & ECC Assist**

Debbie Lansberry, **Director**

John Chamberlain, **Spokesperson, Golf Tournament Chairperson**

Margarita and Terry Borgal, **Directors**

Dennis Roberge - **Special Advisor, Invasive Plants**

ASYCC Management Team Dave Burns, **Program Director**

ASYCC Advisors York Co Soil & Water Conservation District

Courtesy Boat Inspection Program

The goal of the CBI Program is to prevent the introduction of invasive aquatic plants and organisms from entering local water bodies.

The CBI Program works to protect Mousam Lake and Square Pond from invasive aquatic plants and organisms by inspecting boats going into and coming out of our local waterways.

Invasive aquatic plants and organisms threaten the ecology of the freshwater lakes and rivers, the regional economy, and wildlife populations in the area.

The ASYCC emphasizes education, outreach and community involvement as one of the most important purposes of the program, helping boaters and landowners understand how vital it is to protect the Mousam Lake & Square Pond Watershed.

Inspectors conduct boat and trailer inspections looking for plants and plant fragments like the one found on June 20, 2021 on Mousam Lake and provide information to boaters about invasive aquatic plants and organisms.

Inspectors check all:

- **Boats**
- **Trailers**
- **Jet skis**
- **Fishing tackle**
- **Lines and ropes**
- **Water toys**

Inspectors are stationed on the Mousam Lake and Square Pond public boat ramps.

Inspectors look for aquatic plants and organisms like variable leaf-milfoil, Eurasian water–milfoil, swollen bladderwort, water chestnuts and marine organisms such as zebra mussels are just a few invasive species the inspectors look for.

Boat inspections and public education are the best ways to protect Mousam Lake, Square Pond, Loon Pond and Goose Pond from invasive aquatic plants and organisms.

Once an invasive species enters a waterway it is very costly to treat or remove. The impacts are far reaching and include a decrease in nearby property values, degraded water quality, decrease in marine life biodiversity and restricted recreational opportunities. There are several lakes in the region that are currently overwhelmed with the removal and maintenance of invasive aquatic species.

Courtesy Boat Inspection Program Con't

- **Square Pond** coverage began on April 23rd for the "early pre-season" which ran for three weeks, a "pre-season" coverage for six weeks, the "regular season" ran for 11 weeks and the final "post season" for three weeks ending September 28th with a grand total of 954.5 inspector hours.
- **Mousam Lake** coverage began on April 23rd for the "early pre-season" which ran for three weeks, a "pre-season" coverage for three weeks, the "early regular season" coverage ran for 3 weeks, the "regular season" ran for 11 weeks and the final "post season" for five weeks ending October 7th with a grand total of 1316.5 inspector hours.

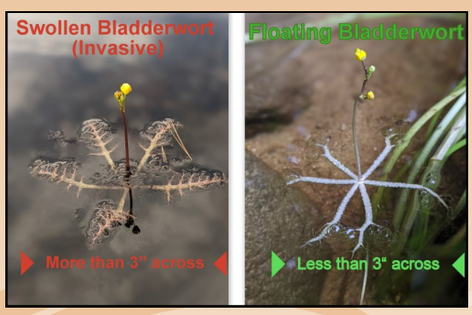
Total Number Of Inspections and Plant fragments collected throughout the 2023 season			
	Total number of inspections	Number of plant fragments submitted	Number of confirmed invasive plants
Mousam Lake	6197	325	38
Square Pond	877	26	0
Total	7074	351	38

Chinese Mystery Snails...

We would like to take this opportunity to highlight the great work being done by our two lake associations to carry out work to remove the extremely invasive Chinese Mystery Snail on Square Pond and the newly discovered Swollen Bladderwort in Mousam Lake.

The Square Pond Improvement Association (SPIA) has been working on keeping the snail population under control for 12 years, their knowledge is vast and their operation impressive. In 2023, the **Square Pond Snail Snatchers** completed 7 organized dives and several people dove individually. 68 people volunteered this year and approximately 50 volunteers participated in several dives. 35 divers are now certified. Season totals for Square Pond Snail Snatchers is 1,929 lbs of snails.

Swollen Bladderwort



The SPIA Team has mentored a **new Mousam Lake Region Association (MLRA) Dive Team.** Their first year (2022) was a great success and MLRA was able to purchase some start-up equipment to complete 4 dives. They collected a total of 204 lbs. of snails, which equates to an estimated 8,160 invasive snails removed from the lake. While the snails continue to be an issue for Mousam Lake, this year revealed a new invader, Swollen Bladderwort. The MLRA has mounted a huge effort to gain control of this rapidly spreading, unrooted invasive plant.

Erosion Control Crew (ECC) Program

ECC

Erosion Control Crew is responsible for implementing on the ground conservation practices.

Youth Conservation Corps

A program design to provide local youth an opportunity for meaningful summer employment while learning about environmental and natural resource protection through the installation of on the ground conservation practices.

The "YCC/ECC" *(Youth Conservation Corps/Erosion Control Crew)* modeled after the State of Maine program has been successfully adopted to protect and improve water quality in several other communities across the state. With development and construction on lakeside properties, the ECC helps to educate property owners and municipalities about the affects of weather, wave action and development have on their properties.

The ECC is comprised of local high school students and a crew leader who install erosion controls with guidance from the ECC Director.

The ECC services are open to any property owner in the Mousam Lake, Square Pond, Goose Pond or Loon Pond Watersheds. A project typically begins with a homeowner requesting a technical assistance visit to assess any erosion issues.

Next steps include:

The ECC Director, having gathered pertinent information from the homeowner regarding usage of the property will **recommend** standard erosion control Best Management Practices (BMP's) to address erosion.

A **summary or technical report** will be provided to the landowner.

Part of the report will also include a **letter of agreement** that outlines the responsibilities of the homeowner and the ECC/ASYCC that highlights instructions and guidance for maintenance necessary to retain the BMP's effective design.

The crew typically provides the **labor** and the **homeowner is responsible for purchasing** and having materials on site prior to the crew work day. " Starting with the 2024 Season, ASYCC's/ECC program will include a labor cost in an all inclusive fee to be invoiced to the landowner upon completion and acceptance of the project. The ECC Director and homeowner will work together to schedule the work.

Commonly Used Conservation Practices Aka Best Management Practices

Conservation practices are used to infiltrate, slow or divert runoff and in doing so help protect water quality. Most are fairly straightforward and simple. Below are some of the most common practices. For additional details on how and where to install these, visit our website: www.asycc.com/education.html .

Conservation practices most commonly used include erosion control mulch, water diverters, rain gardens, planting buffers, French drains, dry-wells, rain barrels, rubber razors, turnouts and water bars to name just a few.

Survey 1-2-3 Program: Survey123 for ArcGIS is a simple and intuitive field data gathering solution that makes creating, sharing, and analyzing surveys possible in three simple steps: ask questions, get answers, and make better decisions. In this situation, Survey 1-2-3 is also used to assist with the Maine Department of Environmental Protection (MDEP) Permit-by-rule (PBR) application and allows for MDEP to waive PBR application fees. Landowners who partner and work with the ASYCC may be eligible for a cost savings on the permit fees.

Shapleigh Town Beach

Problem: Stormwater runoff and lack of vegetated buffer is causing minor erosion at the Shapleigh Town Beach, causing pollutants to enter adjacent Square Pond. Foot traffic compacts the soil and runoff cannot infiltrate so is exacerbating erosion issues.

Recommendations: Convert current stone walkway to infiltration path. Approximately 30 ft long and 4 ft wide. Steps will be dug 8-12” deep and filled with ¾” crushed stone. Additional native plants will be added to encourage additional stormwater infiltration and direct foot traffic on designated areas. Outside of the 75’ zone, water diverters will be used to redirect stormwater from the parking lot and upper slope and trail into a stormwater basin or vegetated areas.

Cedar Drive, Shapleigh - Square Pond

Issue: Generously sloped site with surface runoff that is rutting their launch area due to runoff flowing off of trail. Runoff is also coming from the roof and all directly heading to the lake. Shoreline area has evidence of sediment loading from this runoff.

Recommendation: Spread erosion control mulch on foot paths and bare soil areas located around the house. Place various plantings, install roof drip line, rain diverter and drywell to encourage infiltration of runoff.

Meader’s Lane, Shapleigh - Mousam Lake

Issue: Property is located on a narrow piece of land and sits about 15' from the waterline and approximately 10' above the water. It has pretty steep sloping towards the lake and all surfaces lack proper vegetation to control/slow runoff. The roof of the house roof has a lot of surface area and a steep pitch. There is one small gutter that covers half the roofline. The house is also located near the bottom of the entrance of Meader's Ln.

Recommendations: Install mulch and set new plantings to help stabilize slope. Install roof drip lines at front and rear of house. Gutters should also be considered for the remaining roof line. Installation of a small dry well at the end of downspout to capture and infiltrate flows.

ASYCC Yearly Statistical Analysis

2001-2023

		2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2001 2005	To date
Erosion Control Projects	**Totals**	**21**	**0**	**22**	**23**	**18**	**19**	**20**	**30**	**24**	**19**	**30**	**26**	**27**	**24**	**16**	**20**	**18**	**26**	**87**	**470**
By Town	Acton	**6**	0	9	7	12	8	6	22	8	11	14	14	11	7	2	6	8	16	41	208
	Shapleigh	**15**	0	12	16	6	11	14	8	16	8	16	12	16	17	14	14	10	10	46	261
By Lake	Mousam	**12**	0	9	12	10	8	6	6	13	9	7	13	14	7	9	10	7	10	55	217
	Square	**7**	0	11	10	6	9	12	23	10	7	15	8	11	15	6	6	7	3	9	175
	Goose	**0**	0	0	0	0	1	0	0	0	2	0	1	0	0	1	1	2	2	7	17
	Loon	**2**	0	2	1	2	1	2	1	1	1	3	4	2	2	0	3	2	11	11	51
Technical Visits		**31**	44	41	43	**43**	60	**48**	**37**	**64**	**32**	**35**	**44**	**43**	**34**	**33**	**32**	**48**	**65**	**173**	**866**
Courtesy Boat Inspections	Total	**7074**	8295	8211	9323	6666	7870	6650	6638	6009	5354	5336	5303	4169	3095	2549	1421	1051	580	1708	80,037
# of inspections per lake	Mousam Lake	**6197**	6987	7106	7702	5758	6858	5526	5815	5274	4668	4615	4939	3638	2663	2316	1329	1042	553	1695	69,873
	Square Pond	**877**	1308	1105	1621	908	1012	1124	823	735	668	718	564	531	432	233	182	9	27	13	10,164
Plant Samples Collected	Mousam Lake	**325**	233	144	224	385	730	1572	288	297	154	291	233	34	0	14	7	33	5	15	4816
	Square Pond	**26**	44	30	92	95	176	287	84	76	79	75	30	24	3	3	1	0	1	1	1005
	Loon Pond	**0**	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2

Photo credit: Mousam Lake FB page

Natural Resource Protection

The goal is to minimize human impact on the land, use local materials, incorporate the natural landscape into the erosion remedy, promote vegetation and prevent pollutants from entering the water body.

Acton Shapleigh Youth Conservation Corps

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www.asycc.com