



Annual Report

2021-2022

“A healthy watershed that provides
balance between environmental, social,
and economic benefits.”

MESSAGE FROM THE CHAIRMAN



This past year was a busy time as SEAWA has continued to work on the 3 year strategic plan supporting the SEAWA vision of a healthy watershed that provides balance between social, environmental, and economic benefits. None of this would be possible without the dedication of our staff and volunteers.

This past year has seen the completion of the SEAWA Riparian Restoration Project

funded under the Watershed Resiliency and Restoration Program (WRRP). As a result over 1000 native trees and shrubs have been planted and maintained over a 4 year period in 8 project sites within the watershed. In addition, the work has expanded the knowledge of restoration practices and provided research into developing techniques to suppress invasive vegetation within riparian areas. Much of this knowledge has been developed with partners and has been communicated through the SEAWA newsletters. Thanks to Marilou, our Executive Director for successfully managing this project from inception to completion.

Our Communications committee has seen numerous successful projects throughout the year. Of special mention is the Adopt-a-

Pond initiative within the city as well as the Pond, Creek and Coulee art exhibit. Thanks go out to Martha and the army of volunteers involved.

I would like to thank the SEAWA Technical committee for the progress on developing a source water protection plan. Funding was recently secured from the Alberta Real Estate Foundation for a study to better understand drinking water source areas. We expect to see this report in the coming year.

Thank you to the Policy committee for the guidance on developing the work plan and for the amendments to the SEAWA bylaws.

Welcome to our new staff members, Andrea, Matt and Ben (returning). Thank you Sydney for your past work and best of luck in the future.

I would also like to thank the SEAWA Board of Directors and Executive, for your time and support of the SEAWA vision.

On behalf of the Board of Directors of the South East Watershed Alliance (SEAWA), I would like to thank all of our supporters, members and volunteers for their participation and contributions during the past year as we look forward to further stewardship success in 2022-2023.

Ryan Davison

SEAWA Chairman

MESSAGE FROM THE EXECUTIVE DIRECTOR

Another year was completed with many accomplishments to be proud of. We exceeded our objectives for the year and have been adept at being adaptive - learning by doing, as we recognized project opportunities, applied for funding, developed partnerships, and implemented projects for the sustainability of water, ecosystems and watersheds.

Started in 2018, we have completed a four-year milestone in stewardship, partnerships, knowledge development (applied research), and education, through the riparian restoration projects. This milestone was marked by the conclusion of the project funding from the Government of Alberta's Watershed Resiliency and Restoration Program. We restored a total of 11.5 km. We have gained valuable watershed knowledge that we are confident in sharing and using to educate our stakeholders and the public. Outdoor-based education as well as media tools have been useful in disseminating knowledge that generates interest in our activities and projects. Knowledge development is an ongoing process that we will continue. A summary of accomplishments through these projects is on page 9 of this report.

SEAWA will continue to look after the four newly restored sites that total 2.1 km (out of the total 11.5 km). These sites are: Connaught Pond and Seven Persons Creek by Saratoga Park at the City of Medicine Hat, Sauder reservoir, and Yeast site by Seven Persons Creek, south of the hamlet of Seven Persons. These have been revegetated over the past four seasons with over 1100 native shrubs and trees. Post-planting care and site maintenance are paramount in this challenging semi-arid climate that is punctuated with very dry field seasons (example, 2019, 2019 & 2021). These sites are important educational venues for students and the public. Continued work on riparian restoration and conservation promotes ongoing local knowledge development in key aspects of the interconnectivity of natural elements and processes, and maintenance of ecological integrity. Sharing knowledge leads to awareness that in turn, promotes the conservation of water and ecosystems that are important for overall watershed and human health.

A question that often arises about riparian revegetation is: "When do you leave them on their own as natural areas?" Restoration of ecosystems takes decades, as did the degradation that occurred. In settled areas, pressures from human activities, such development, recreation, water use and management, wastewater discharges, solid waste disposal, litter, introduction of invasive species, loss of natural predators, disruption of

natural processes such fire and floods, etc. make it difficult for remnant undeveloped areas to remain truly natural. Therefore, these 'natural areas' must be managed to be as natural as possible so as to maintain healthy aquatic and native prairie or grassland ecosystems. This entails the provision of natural habitat (land, water, and in-between—riparian areas and wetlands) and food sources for native species, the conservation of native biodiversity, and the control of invasive plants and animals.

SEAWA needs new funding for the conservation of newly revegetated and restored riparian areas as well as potentially adding a new site or sites.

For this upcoming year, we have been fortunate to receive a grant from the Alberta Real Estate Foundation for the project, 'Characterization of Drinking Water Source Area for the City of Medicine Hat and the Town of Redcliff'. This study is part of the overall process for the future development of a source water protection plan.

We have prepared three publications this year. This coming winter, we will be writing education materials on riparian restoration practices and the results of our experiments on suppression of invasive riparian plants.

SEAWA greatly appreciates the annual financial support of the Government of Alberta that covered most of the cost of its operations. Operational and project costs have been supplemented by wage subsidies and donations.

The value of In-kind contribution this year of almost \$190,000 showed growing interest, participation, and support from the SEAWA board and committees, volunteers, and the public. A big thank you!

Let's invite more people to become SEAWA members and/or volunteers!

Thank you to the staff who did the riparian restoration fieldwork in what was a long drought season of 2021: Ben White, Ian Mahon, Sydney Taplin, and Alexi Nelson.

I'm always optimistic about SEAWA's future successes and thankful for its achievements thus far.

Marilou Montemayor, P. Ag.

M. Environmental Studies, B. Sc. (Environmental & Natural Resource Sciences)

ORGANIZATIONAL CAPACITY

Governance

The 14th Annual General Meeting (AGM) was held on July 8, 2021. The Board consisted of new directors, directors that were re-elected and continued their term, and the past chair (Garry Lentz). During the year there were changes to the board composition as a result of a new appointment, a resignation, a passing away, two inactive directors, and the Past Chair who relinquished his voting privilege. As of March 2022, the total number of active board of directors was 10, out of a total of 17 board seats. The officers were: Ryan Davison – Chair, Stuart Murray – Vice-Chair, Tina Regehr – Secretary, and Karen Saffran, Treasurer. Other Directors were: Greg Paxman, Mike Zmurchyk, Jean Beriault, Robin Kurpjuweit, Ron Linowski, and Amber Zary. The board held a total of seven meetings and the AGM.

Executive Committee consisted of the four officials of the Board. It also functioned as the Human Resources Committee. The Past Chair resigned from the Executive Committee on February 2022.

The Technical Committee consisted of 14 members – Karen Saffran as the Chair. Communications Committee consisted of 6 members – Martha Munz Gue as the Chair. The Bylaw and Policy Committee had 5 members with Audrey Goodwin as the Chair.

SEAWA had a total of 82 members.

Governance was guided by the SEAWA Bylaws, Board and Committee Terms of References, Policies, Vision and Mission Statements, business plans and strategies, and conditions of grant agreements.

Cash Funding Sources

SEAWA's operations were mainly funded by the Alberta Environment and Parks (AEP) grant. This grant was provided to SEAWA as a

Watershed Planning & Advisory Council (WPAC). Donations from key stakeholders, an industry, a school, and individuals supplemented the AEP operational grant. Summer Student wages were subsidized through the Canada Summer Jobs program. Riparian restoration stewardship projects were funded through the multi-year Watershed Resiliency and Restoration Program (WRRP) grant, and donations. WRRP funding was closed in November 2021 and the final project report was submitted in February 2022.

In-kind Contribution

In addition to cash grants, wage subsidies, and donations, volunteer services of the board of directors, committee members, community members, the public, and donated staff hours enabled SEAWA to function effectively and achieve its objectives for the year.

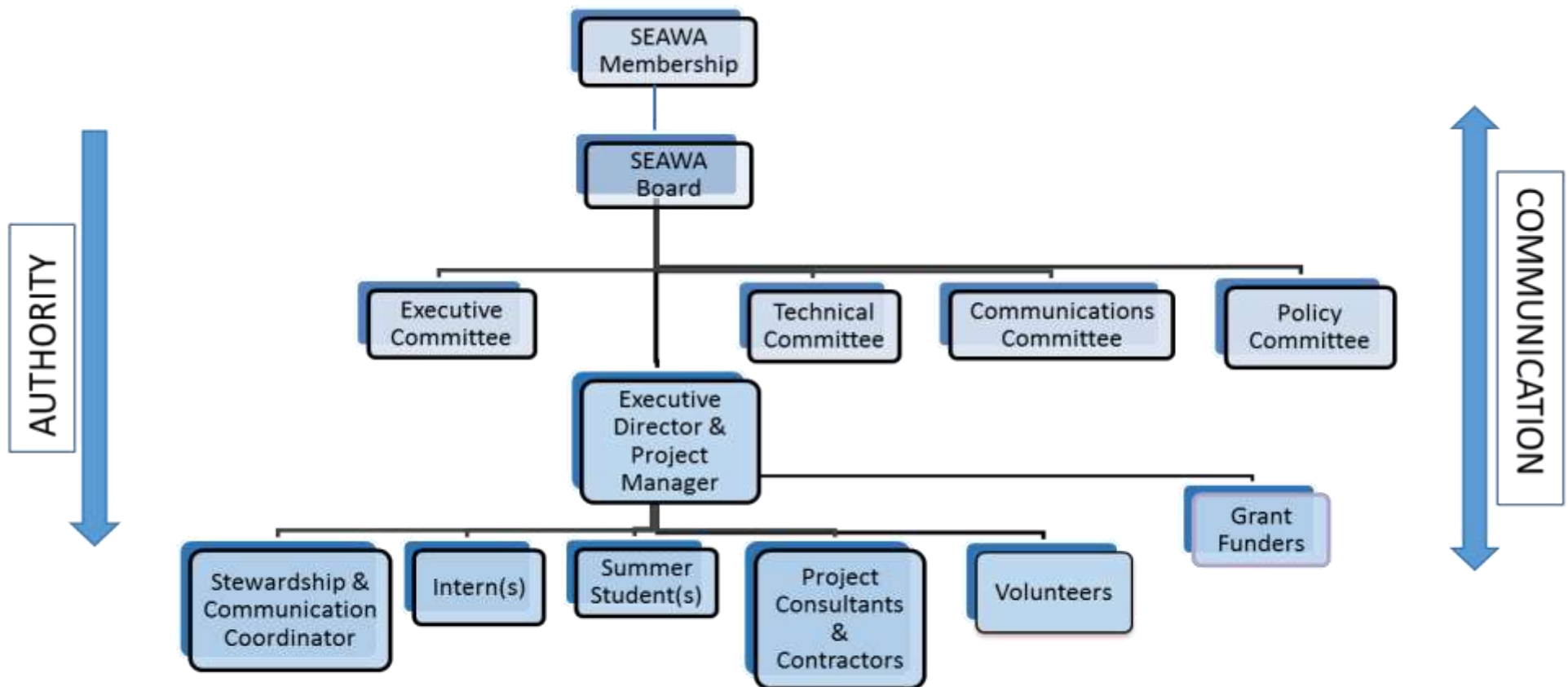
Staff capacity

As in the past three years, staff capacity for 2021-2022 has been trimmed down to align with the reduced operational grant of \$195,000 per year for four years (2019-2020, 2020-2021, 2021-2022, and 2022-2023). This year's full-time staff included the following: The Executive Director and a Stewardship and Communications Assistant (Intern). The Executive Director took on additional duties of being the project manager, science coordinator, and communications coordinator. Two summer students were hired for the riparian restoration projects.

Organizational Structure

SEAWA functions effectively as a volunteer-based organization and performs its role as a WPAC through its membership (82), board, committees, volunteers and hired staff. The organizational structure is illustrated on the next page.

ORGANIZATIONAL STRUCTURE



BOARD AND COMMITTEES



Executive Committee meeting, 27Jan2022. L-R, T-B: Stuart Murray, (Vice-Chair) Marilou Montemayor (Executive Director), Karen Saffran (Treasurer), Ryan Davison (Chair), & Tina Regehr (Secretary)



Board meeting, 9Feb2022. Left to right; top to bottom: Martha Munz Gue, Marilou Montemayor, Ron Linowski, Ryan Davison, Tina Regehr, Karen Saffran, Jean Beriault, Amber Zary, Mike Zmurchyk, Greg Paxman , & Audrey Goodwin.



Communications Committee meeting, 13Dec2021. L-R, T-B: Terry Lawson, Marilou Montemayor, Martha Munz Gue (Chair) Tina Regehr, Ben White, Karen Saffran, Ian Langill, & Sydney Taplin.



Policy Committee meeting, 15Nov2021. L-R, T-B: Keely Gilham, Marilou Montemayor, Ryan Davison, Bob Deis, Amber Zary, Audrey Goodwin (Chair), Sydney Taplin, & Ron Linowski.



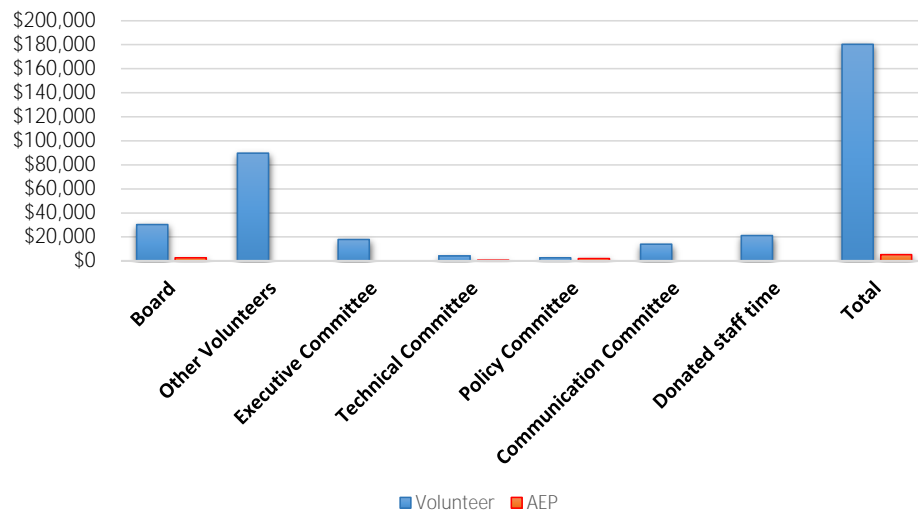
Technical Committee meeting, 01Feb2022. L-R, T-B: Karen Saffran (Chair), Marilou Montemayor, Ryan Davison, Ron Linowski, Greg Paxman, & Natalie Kromrey.

IN-KIND CONTRIBUTION

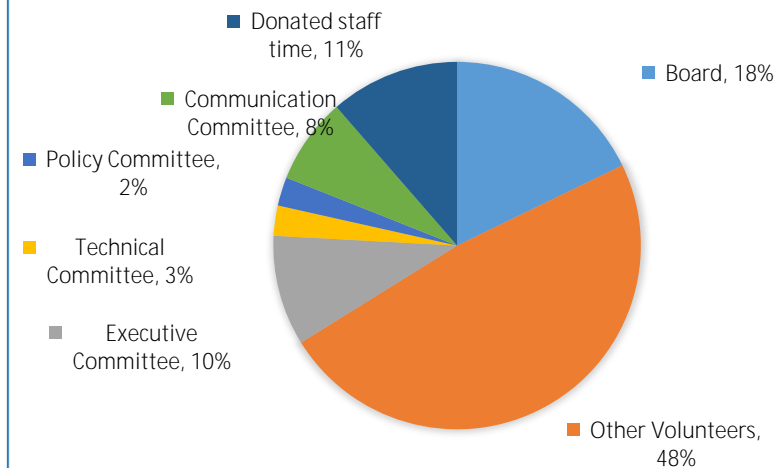
The total in-kind contribution for the year was \$185,669 out of which, \$5,355 came from AEP staff participation in the Board, Technical Committee and Policy Committee. A huge portion (48%) came from year-round regular clean-ups around the City of Medicine Hat through the 'Adopt-a-pond' initiative and during the celebration of events such as Earth Day, Environment Week, and World Water Day. Board services were at 18%, Donated staff time (Executive Director) at 11%, Executive Committee at 10%, Communications Committee at 8%, Technical Committee at 3%, and Policy Committee at 2%. Board and Committee members' services were calculated at \$85 per hour and volunteer clean-up hours at \$25 per hour. The value of goods donated was determined based on the cost if we were to purchase them.

The total in-kind contribution for the year was \$189,669.

Breakdown of In-Kind Contribution



BREAKDOWN OF IN-KIND CONTRIBUTIONS (%)



FINANCIAL REPORT

SEAWA's financial position continued to be good as it has been in the past 5 years. Expenditures were wisely managed to be within our means. We have always ensured that there is sufficient cash balance at the end of each year to bridge a potential delay in the release of Alberta Environment and Parks operational grant.

	March 31, 2022 (Unaudited)	March 31, 2021 (Unaudited)
STATEMENT OF FINANCIAL POSITION		
ASSETS	<u>\$209,504</u>	<u>\$198,852</u>
CURRENT LIABILITIES	29,811	27,484
NET ASSETS	<u>179,693</u>	<u>171,368</u>
	<u>\$209,504</u>	<u>\$198,852</u>
STATEMENT OF OPERATIONS		
REVENUES	<u>\$238,494</u>	<u>\$256,550</u>
EXPENDITURES - AEP	202,936	218,529
EXPENDITURES - WRRP	<u>27,233</u>	<u>23,908</u>
	<u>230,169</u>	<u>242,437</u>
EXCESS OF REVENUES OVER OPERATIONS	<u>\$8,325</u>	<u>\$14,113</u>
STATEMENT OF CHANGE IN ASSETS		
BALANCE – BEGINNING OF PERIOD	\$171,368	\$157,255
BALANCE – END OF PERIOD	<u>\$179,693</u>	<u>\$171,368</u>
STATEMENT OF CASH FLOWS		
CASH – BEGINNING OF YEAR	\$178,089	\$164,328
CASH – END OF YEAR	<u>\$187,739</u>	<u>\$178,089</u>

STEWARDSHIP: A FOUR-YEAR MILESTONE IN RIPARIAN RESTORATION

• **11.5 km riparian areas restored** • **Over 1100 native shrubs and trees thriving** • **834 km riparian health assessed**

Healthy riparian areas are essential components of healthy aquatic ecosystems. They improve resiliency of water bodies to the adverse effects of climate change, human activities, and other natural disturbances.

A total of 11.5 km of riparian area has been restored. Of the 11.5 km restored, a total of 2.1 km at four different sites was planted with native shrubs and trees (woody vegetation). Sites were/are: Connaught Pond and Saratoga Park, both within the City of Medicine Hat, Yeast site (south of the hamlet of Seven Persons, and Sauder reservoir. Planted over seasons 2018 to 2021, there are over 1100 plants that have survived and are thriving. There were 8 species of shrubs (chokecherry, wolf willow, thorny buffalo berry, golden currant, Saskatoon berry, western snowberry, red osier dogwood, and silver sagebrush) and 3 species of trees (plains or western cottonwoods, green ash, and Manitoba maple aka boxelder). Other restoration work consisted of fencing to manage livestock (agricultural areas) or pets and people (urban areas), and installation of livestock off-stream watering systems.

There were 10 restoration sites and 8 landowner partners. A video on riparian restoration and partnerships was produced in 2020: [Welcome to SEAWA | South East Alberta Watershed Alliance](#)

An aerial riparian health assessment was completed in 2018 that covered 702 km of creeks and 132 km of lakes and reservoirs, a total of 834 km.

Revegetation has been the most challenging restoration method involving labour-intensive post-planting care over several seasons. Seasons with drought conditions have been stressful to vegetation and tested the patience and perseverance of staff.

Experiments on suppression of riparian invasive plants or noxious weeds became part of restoration through revegetation. A few native species were not available from commercial suppliers so plant propagation methods were developed.

Revegetation, invasive plant management experiments, and native plant propagation have generated important local knowledge that became the basis of SEAWA's education and outreach activities. Planting, plant care, weed pulls, and plant propagation were activities that volunteers could participate in without being a landowner. These activities, based on locally derived practical knowledge, have been of great interest to stakeholders and the public.

Restoration projects provided employment to students, casual labourers, and consultants. Revegetation projects provided relevant work experience with academic credits to students as practicum or coop work. Due to the outdoor nature of restoration work, and educational and volunteer activities, employment at SEAWA was not affected by the COVID-19 pandemic.

The Government of Alberta's Watershed Resiliency and Restoration Program provided a total project grant of \$221,000 expended over the period 2017 to 2021. The Government of Canada's Recreational Fisheries Conservation Partnerships supplemented this project with \$71,157 for the period 2018-2019. In addition, GoA's operational grant to SEAWA, donations, and wage subsidies (Eco Canada, and Canada Summer Jobs program) over the four-year period were essential in meeting project costs.

Ecosystem restoration takes decades. Continued care and new funding are critical to ensure long-term woody vegetation establishment is successful in overcoming decades-old invasive weed infestation and overall riparian degradation. When habitat is established, a food-web develops, and riparian functions that benefit aquatic ecosystems and biodiversity are re-established. Long-term observations will continue to provide important riparian restoration and conservation knowledge each season. Please visit: [Riparian Restoration | South East Alberta Watershed Alliance \(seawa.ca\)](#)

RIPARIAN RESTORATION 2021

Over 1100 plants at four sites (Connaught Pond, Saratoga Park, Yeast site, and Sauder reservoir site) were cared for. Activities included planting, watering, hand weeding, mowing, making berms or basins around each plant, fixing stakes and plant cages or fencing, application of wood chip mulch, and spraying deer deterrent. We constructed wattle fences to restore an eroding top bank and planted silver sagebrush. Regular watering was done weekly or twice a week during the heat wave period. The heat wave started in June, earlier than the previous seasons. The dry season extended towards fall such that our last watering was in mid-November. It

was a very challenging season for staff and plants. It became more challenging when students went back to school. Hired labour was hard to come by.

A notable effect of the heat wave and extended drought was diminished fruiting of saskatoons and golden currants.

Project Team: Marilou Montemayor—Project Manager, Ben White—Field Lead, Ian Mahon, Alexi Nelson, Larry Paik, Sydney Taplin.



WATERSHED KNOWLEDGE DEVELOPMENT

The presence of invasive plants or noxious weeds in riparian areas is unhealthy. Leafy spurge is prevalent at the Yeast site, an irrigated crop production field. Russian olive tree is an issue within the City of Medicine and the surrounding rural areas, choking and displacing native vegetation and depriving wildlife of sources of food and materials. Other undesirable plants are downy and Japanese brome, and in urban areas, climbing nightshade

We have been conducting experiments to develop methods that: utilize the characteristic of some plants to inhibit the growth of other plants (allelopathy), do not involve the use of chemicals, do not involve big machinery and soil movement, are small scale, and require simple tools. These methods are suitable for volunteers. Be friendly to volunteers! They are important in helping restore ecosystems.

Experiments that were continued this year: suppression of leafy spurge by a) planting wolf willows with monthly weeding, b) planting silver sagebrush with monthly weeding, and c) mowing only, and d) golden currants to suppress reed canary grass. Golden currant flowers have been the earliest to host bees each season.

Experiments that were started this year are: a) suppression of downy and Japanese brome by planting western wheat grass plugs and silver sagebrush, and b) emergence of Russian olive seeds within wolf willow stands.

Experiments that have been concluded are: a) physical extraction of Russian olive seedlings and saplings, and b) care of cottonwood sprouts (regrowth) after a tree was felled by beavers.

Once data are analyzed, results are communicated through SEAWA's quarterly newsletter. Information is available here: [Invasive Plant Management | South East Alberta Watershed Alliance \(seawa.ca\)](https://seawa.ca/invasive-plant-management/)

Research Team: Marilou Montemayor—Principal Investigator, Ben White, Ian Mahon, Alexi Nelson, and Sydney Taplin.



NATIVE PLANT PROPAGATION FOR RIPARIAN RESTORATION

Some native plants that are not available commercially are western cottonwoods (*Populus tremuloides* spp. *monilifera*) and silver sagebrush (*Artemisia cana*). After a few trials, we developed our own propagation methods over the winter of 2021. We propagated over a hundred potted stem cuttings of western cottonwoods and planted them at Connaught Pond, Medicine Hat. Propagation was done at the SEAWA office by a sunny window, and outdoors at a home backyard. The snow in May did not damage the cottonwoods. We propagated from seeds almost a hundred

silver sagebrush seedlings that were used in the experiments to suppress leafy spurge, and downy and Japanese brome, as well as to stabilize a bare top bank at the Yeast site. Manitoba maple seedlings that grew in yards were collected and grown in pots, then planted at Connaught Pond and Saratoga Park sites. Western wheatgrass plugs were grown for the experiment on downy and Japanese brome replacement. Propagation details are available here: [Native Plant Propagation | South East Alberta Watershed Alliance \(seawa.ca\)](https://seawa.ca/Native-Plant-Propagation-South-East-Alberta-Watershed-Alliance)



COMMUNITY ENGAGEMENT

A year full of outdoor educational activities started with the annual spring celebrations of Earth Day (April), and Environment Week (June). Both were spring clean-up and Russian olive sapling removal volunteer events. We hosted riparian educational tours (July and September) at the Yeast site and showed the progress of riparian vegetation and the experiments on suppression of invasive plants. In July, we participated with Grasslands Naturalists' invasive species workshop at Connaught Pond. Volunteers joined us in tree planting. With the Medicine Hat College students having returned to school in-person, we hosted riparian educational tours in September and October. Martha Munz Gue's Adopt-a-pond initiative blossomed into a well-participated volunteer activity of weekly trash pick-up around the city's ponds. It expanded to include riparian paths and trails around the City of Medicine Hat. Bees visited our urban pollinator garden, located at the edge of a parking lot, downtown Medicine Hat. We pulled downy and Japanese brome. The extended dry season allowed us to do volunteer invasive and noxious weed removal at Connaught Pond in November. Outdoor activities were concluded on World Water Day (March 2022) with a

demonstration of the propagation of native cottonwoods. Riparian restoration and applied research projects generated local watershed knowledge that became the basis of SEAWA's educational and awareness campaigns: <https://seawa.ca/take-action/community-action>

SEAWA participated in the activities of other organizations such as Praxis Society, Grasslands Naturalists, the City of Medicine Hat (stakeholder consultations), and at local tradeshow. Partnerships with St. Mary River Irrigation District and landowners have been maintained.

SEAWA also participated in the activities of the broader water, watershed, and climate adaptation organizations: Alberta Water Council, the 11 WPACs, the South Saskatchewan River Basin Inter-Basin Coordinating Committee, Alberta Environment & Parks, and Alberta Energy Regulator. We circulated events and information from several organizations: Climate West, Water Canada, Our Living Waters, International Council for Local Environmental Initiatives, and many more. We have shared knowledge about water, watersheds, ecosystems, and climate change on facebook—SEAWAlliance and twitter—SEAlbertawaters.



NEXT STEPS

To achieve SEAWA's Vision and Mission, the SEAWA Board established five goals for the period 2020-2023 [Three-Year Strategic Plan \(seawa.ca\)](#) . SEAWA's annual activities are organized based on objectives set under these goals. These goals are aligned with WPAC roles, <https://www.alberta.ca/watershed-planning-and-advisory-councils.aspx>, under the Government of Alberta's Water for Life strategy, <https://www.alberta.ca/water-for-life-strategy.aspx> . Guidance is also provided by the South Saskatchewan Regional Plan, <https://open.alberta.ca/publications/9781460139417> .

Goals 1 and 2, and the knowledge base for Goal 3 are totally dependent on successful project-specific grant applications. Goals 3 and 4 are funded by the Government of Alberta, Environment and Parks (AEP) and successful project grants. Goal 5 is mainly funded by AEP with additional funding from stakeholder donations and wage subsidies to summer students or youth employment. We have exceeded our objectives for the year while keeping SEAWA financially sound.

Monitoring & Reporting

Goal 1—The SEAWA watershed is assessed and watershed knowledge is expanded.

Policy & Planning

Goal 2—SEAWA watershed management plans are developed.

Literacy & Education

Goal 3—The community is engaged in watershed issues through education and stewardship.

Convenor & Collaborator

Goal 4—Relationships with stakeholders and the broader water and watershed networks are developed and improved.

Operational

Goal 5—SEAWA attains sustainable funding and improved organizational capacity.

Objectives under each goal for the upcoming year are:

Goal 1. SEAWA staff prepares educational materials based on riparian restoration work and applied research. SEAWA applies for grants to continue studies on invasive plant management in riparian areas, and the conservation of native prairie grassland plant communities for climate change resilience of terrestrial and aquatic ecosystems within the SEAWA watershed.

Goal 2. SEAWA completes the project on characterization of drinking water source area. This is one of the components of a bigger and future project, source water protection planning. The current project is funded by the Alberta Real Estate Foundation.

Goal 3. SEAWA applies for grants to conserve newly restored/revegetated riparian areas. Local knowledge gained from applied research and stewardship projects is shared through outdoor educational events, demonstration sites, newsletters, the SEAWA website, social media, and local media.

Goal 4. New project partnerships are developed and previous partnerships are maintained by supporting partner events and initiatives.

Goal 5. SEAWA continues to promote its achievements and relevance to the watershed, and encourage stakeholders to provide financial support.

SEAWA MISSION

SEAWA brings together diverse partners to educate the public, to support knowledge development, and to develop and facilitate the implementation of management plans for the sustainable use of the South Saskatchewan River Basin and the Pakowki Lake watershed.

THANK YOU TO ALL SUPPORTERS!

Alberta Environment and Parks
Alberta Irrigation Districts Association
Alberta Real Estate Foundation
Canadian Fertilizers Industries
City of Medicine Hat
Cypress County
Dr. Roy Wilson Learning Centre Grade 5
Government of Canada
Grasslands Naturalists
Medicine Hat Interpretive Program
Medicine Hat College
Praxis Society
St. Mary River Irrigation District
Town of Redcliff
Arcade Plaza, Medicine Hat
Get Growing Organic Farm
David Gue
Paula Munro Dumonceaux
Terry & Rob Lawson
Gary Franz
Trevor Regehr
Garry Lentz
Cathy Linowski
All participants of the Adopt-a-Pond initiative
All artists who contributed to the Ponds, Coulees, & Creeks
art show
All volunteers, SEAWA events

South East Alberta Watershed Alliance Society

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Sydney Taplin, and Alexi Nelson