





IISD-ELA

2022-2023 ANNUAL REPORT

NORTH
WEST
ONTARIO
SIDE
STORY

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Head Office

111 Lombard Avenue, Suite 325
Winnipeg, Manitoba, Canada R3B 0T4
Phone: +1 (204) 958 7700

iisd.org/ela

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Fisheries and Oceans Canada Pêches et Océans Canada

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The wordmark for the Government of Canada, featuring the word "Canada" in a large, black, serif font, with a small Canadian flag icon integrated into the letter "a".

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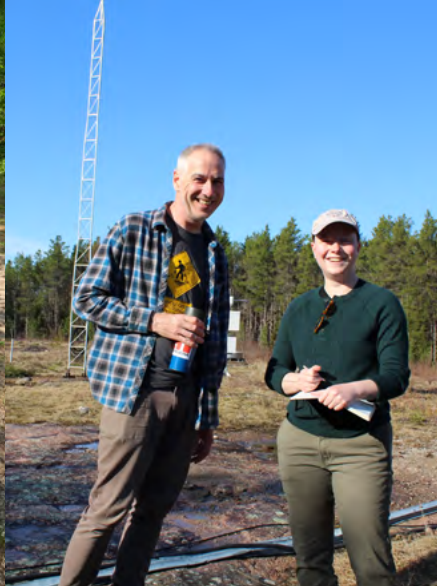
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Cast & Crew









Message From the Chair of the Board and Executive Director

It's certainly no secret that IISD Experimental Lakes Area is a place where world-class and unique scientific approaches to discovering what threatens the health of our fresh water truly thrive.

(Well, probably because we insist on telling you in every tweet, video, and, yes, every opening message in every annual report.)

What we manage to obscure a little better is that, despite all the incredible scientific discoveries that go down at the world's freshwater laboratory, we also harbour some artistic flourishes, theatrical leanings, and even full-on musical talents.

Our creative proclivities even extend to the science that we conduct here.

Take our newly minted research on wild rice, for example. Not only are we exploring the impact of its cultivation on water quality, but we also want to discover how we can reduce its impact on the amount of greenhouse gases that are released from the process, as well as if we can use fish waste to fertilize the rice AND how we can use less water overall. All in one experiment.

Similarly, our research on everything from microplastics to the microparticles that wear off your car's tires is filled with unique flourishes, bespoke equipment, and an anticipated wide variety of results and applications.

But even that does not sate our creative appetites.

Ever since 1968, we have been rockin' oot and breaking a leg or two, deep in the boreal forest.

Just take our annual variety night where our whole team gets to kick back and demonstrate their wide variety of artistic talents and stripes for everyone to see after an intense and productive summer.

And we were so excited by the lakes' potential as a muse that in 2018 we cut the ribbon on our artist-in-residence program, which has seen over a dozen incredible artists—from theatre troops to acoustic guitarists—take inspiration from everyone's favourite 58 lakes (and their watersheds).

(Even our head of operations was in a rock band. For many years. In Laos. No, really...)

So, as you thumb through this playbill like a seasoned theatregoer just minutes before the magical moment that the curtain goes up, be sure to remember that our inestimable team's suite of talents extends far beyond the incomparable science that we have been conducting for over 50 years out at those famed lakes.



MARTHA CASEY (*IISD-ELA Chair of the Board, IISD Interim Co-President and Co-CEO, and IISD Vice-President, Operations and Business Transformation*)



MATTHEW MCCANDLESS (*IISD-ELA Executive Director, IISD Senior Director, Fresh Water*)

Food, Glorious Food

Manoomin, the Anishnaabemowin (Ojibwe) word for wild rice, translates to “the good berry.” And it’s easy to see why.

For the Anishinaabe, it’s a gift from the Creator that is alive and interwoven with their identity, journey, and relationship to the land. As such, it is highly respected and features in a variety of dishes, medicines, and ceremonies. But the wild rice that’s widely commercially available isn’t even *wild*. Around 50% of the wild rice consumed in Canada is imported from the United States, where it’s grown in flooded paddies and considered *cultivated* wild rice.

Globally, the rice industry is a massive polluter, with greenhouse gas emissions on par with the aviation industry. Even a reduction



of 10% in emissions in the rice industry would be equivalent to removing 10 million vehicles from the road. Meanwhile, traditionally grown wild rice has also faced many obstacles over the years (including climate change and shoreline development) and is in no state to handle large-scale commercial harvesting.

This is why, this year, we're collaborating with the Myera Group, Lakehead University, and several Treaty #3 Indigenous communities to find out how we can make the harvesting process more efficient. We are seeking to learn about raising fish and growing wild rice side-by-side while also using fish waste as a fertilizer for the rice.

In addition, this field season, researchers are investigating the possibility of reducing how much water we use to cultivate wild rice. The plants are being grown at varying depths of in 15 tubs. Additionally, we're trying out different levels of saturation; some tubs are fully saturated, while others are wetted every other day. The goal is to find the sweet spot where the wild rice plants will happily grow in less water.

A lot of incredible things can happen when you put brilliant and passionate minds together. Not only will this research strengthen Indigenous economies, help the environment, and see communities reclaim control over their food systems, but it will also have an impact on the cultural preservation of wild rice.



Photo (opposite): [Katherine KY Cheng](#)

Go Greased Lightnin’

Here in North America, it is no secret that we love our cars.

And while we are always balancing the benefits and conveniences that automobiles afford us with their potential impacts on the environment, it seems as though there was one effect—from a chemical we didn’t even know existed—of which we had been previously unaware.

Until recently.

Just a few years ago, researchers discovered 6PPD-quinone.

To cut a long story short, rubber tires used on cars are strengthened to withstand the road and the elements. Imagine a preservative that lengthens the shelf life of a food product in the grocery store, but for tires.

When that protectant breaks down, those particles are exposed to the sun and oxygen in the air, and they form a newly discovered chemical called 6PPD-quinone.

It turns out that when this chemical gets washed off roads—during storms, for example—into surrounding water bodies, it can have some deadly consequences for the wildlife that resides therein.

For a while, researchers had been pondering why stormwater runoff caused the deaths of swathes of coho salmon across the western coast of the United States. Recently, they were able to make the link to 6PPD-quinone.

This is where we come in.

This summer, researchers from the Nielsen Lab at the University of Texas made the most of IISD-ELA’s whole-ecosystem approach to freshwater research.



They constructed some small mesocosms in one of our lakes into which they added different levels of 6PPD-quinone to simulate a storm event.

They then spent the summer monitoring many aspects of the water column—from the water chemistry to the fish and insect populations—to investigate the impact that 6PPD-quinone has on freshwater bodies at a much broader scale than we already understand.

Stay tuned for the results!

The Sound of Music



Put simply, IISD-ELA is an artist's dream.

It is a series of 58 pristine lakes set within Canada's boreal forest in northwestern Ontario, that has been set aside for a unique approach to scientific research.

Photos and videos reveal a space of great peace and tranquility, vast expanses of untouched lakes bordered by dense forests, and a busy community of scientists working together toward common goals. Being there and experiencing it for yourself reveals so much more.

This is why, since 2018, we have been welcoming artists out to the world's freshwater laboratory to act as artists-in-residence—from painters to theatre troupes, from singer-songwriters to poets—in a spot where natural beauty and science collide like nowhere else.

They benefit from a unique and stimulating environment that encourages exchanges between artists and scientists as they are inspired to produce new pieces that expand the potential of art to communicate science.

We have welcomed a range of artists, from the Winnipeg-based theatre troupe Walk&Talk Theatre Company, who composed and strummed their way through their time at the lakes, to Sean Landsman, a photographer from Chicago whose beautiful images revealed more of life under the lakes than we had ever seen before.

Photo (this page): Ben Evan James

Photo (opposite): Walk&Talk Theatre Company



If you're a painter, photographer, writer, poet, or songwriter,
we are interested in inviting you to the site as an

ARTIST IN RESIDENCE

Learn more at
iisd.org/ela





PHILANTHROPY

Inaugural IISD-ELA Donor Day

We love our donors! This year, we welcomed some of our amazing community to our field station in northwest Ontario for the inaugural IISD-ELA Donor Day. It was our fourth crack at hosting the event after 3 years of cancellations due to the COVID-19 pandemic. You can imagine how jubilant we were when the day finally came!

Guests split into groups to see all the incredible work they help make possible. They saw the fish lab, the chemistry lab, the maintenance garage, and all the many puzzle pieces that together make IISD-ELA such a powerful tool for freshwater science. They saw the old Hungry Hall, where, one day, donor generosity will help build the Centre for Climate and Lake Learning, a future beacon for freshwater science.

For lunch, we picnicked by the beach while swapping stories and bonding over a love for fresh water.



Many thanks for a most pleasant, informative day yesterday. It was one great time.”

At the end of the day, scientist Mike Paterson summed up the importance of our wonderful community well: Over the years, IISD Experimental Lakes Area has come under threat more than once. It's only because incredible donors recognized the impact of our work, spoke up, and stepped forward to support world-class science that we're still here, working toward a better future for fresh water everywhere.

Whether you could make it out or not,
thank you, donors!

We couldn't do it without you.

“

The tour presentations were loaded with great information. And, best of all, pride in ELA was fully on display. Well done!”



A huge thank you to John and Ryan McCutcheon for spending time with us at the field station! To hear more about why John McCutcheon chooses to support freshwater science at IISD Experimental Lakes Area, watch this video at iisd.org/ela/donate/#video.

Become a Monthly Donor

At IISD Experimental Lakes Area, we rely on the generosity of freshwater enthusiasts to advance understanding of human impacts on fresh water. Everyone in our community is important to us, but we would like to make special mention of our monthly donors.

For a nonprofit like ours, monthly donors provide a steady and reliable source of funds. That helps us forecast our budget and put your gifts to the best possible use. Monthly donors are a critical part of our community, and we want to thank you all for making IISD-ELA a part of your lives.

Because of you, we're better situated to tackle the world's most pressing freshwater issues. We need you to make this crucial work happen. If you are not already, please consider becoming a monthly donor today.



Tomorrow Needs YOU Today

During its 55-year tenure, IISD Experimental Lakes Area has helped the world understand how human activity affects freshwater environments. Our research has influenced policy in government and industry and has been a direct factor in improving freshwater health.

Since taking over operations of the world's freshwater laboratory in 2014, IISD Experimental Lakes Area has recognized not only the importance of maintaining and expanding this research but also the need for education and outreach. Considering this, we launched the Tomorrow Needs YOU Today public campaign last year.

The campaign has two priorities:

1. The Campus Renewal Initiative focuses on the 10,000-square-foot Centre for Climate and Lake Learning, which will feature a dedicated classroom, upgraded equipment, a dining hall and kitchen, and more. The centre is the next great step in expanding efforts to spread the word about freshwater science. The initiative also includes expanded lodging facilities and the decarbonization of our power grid.
2. The CAD 10-million endowment fund will insulate IISD Experimental Lakes Area from changes in funding and politics, providing a sustainable source of core funding for years to come. And for a limited time, every dollar donated to the endowment fund will be doubled, thanks to a generous gift from the John and Pat McCutcheon Family Foundation.

You can make a difference by donating to these important initiatives at

iisd.org/ela/donate

Financials

STATEMENT OF FINANCIAL POSITION

2023
\$

2022
\$

| | 2023 \$ | 2022 \$ |
|--|-------------------|------------------|
| Assets | | |
| Current | | |
| Cash and cash equivalents | 1,261,908 | 2,586,089 |
| Restricted cash | 619,759 | 532,124 |
| Current portion of grants receivable | 6,043,095 | 1,816,289 |
| Accounts receivable | 197,120 | 68,437 |
| Prepaid expenses | 104,987 | 26,116 |
| Total current assets | 8,226,869 | 5,029,055 |
| Grants receivable | 44,174 | 505,282 |
| Investments | 1,349,147 | 1,382,242 |
| Capital assets, net | 3,641,972 | 1,410,794 |
| Intangible assets | 28,584 | 28,584 |
| | 13,290,746 | 8,355,957 |
| Liabilities and net assets | | |
| Current | | |
| Accounts payable and accrued liabilities | 1,434,764 | 574,926 |
| Due to International Institute for Sustainable Development | 2,455,472 | 104,429 |
| Current portion of deferred contributions | 1,269,192 | 1,450,830 |
| Total current liabilities | 5,159,428 | 2,130,185 |
| Deferred contributions | 70,000 | 518,815 |
| Deferred capital contributions | 4,475,520 | 2,867,164 |
| Total liabilities | 9,704,948 | 5,516,164 |

STATEMENT OF FINANCIAL POSITION**2023**
\$**2022**
\$

| | 2023 | 2022 |
|---------------------------------------|-------------------|------------------|
| | \$ | \$ |
| Net assets | | |
| Net assets invested in capital assets | 546,926 | 367,697 |
| Sustainable Future Fund | 800,000 | 800,000 |
| Remediation fund | 619,759 | 532,124 |
| Internally restricted net assets | 1,619,113 | — |
| Unrestricted net operating surplus | — | 1,139,972 |
| Total net assets | 3,585,798 | 2,839,793 |
| | 13,290,746 | 8,355,957 |

**STATEMENT OF OPERATIONS AND
CHANGES IN UNRESTRICTED NET
OPERATING SURPLUS****2023**
\$**2022**
\$

| | 2023 | 2022 |
|--|------------------|------------------|
| | \$ | \$ |
| Revenue | | |
| Designated grants | 7,268,260 | 3,985,539 |
| Sustainable Future Fund | 69,655 | 70,759 |
| Donations – unrestricted | 69,342 | 75,411 |
| Amortization of deferred capital contributions | 495,299 | 124,094 |
| Other | 413,081 | 303,760 |
| Investment income | 52,218 | 18,112 |
| | 8,367,855 | 4,577,675 |

**STATEMENT OF OPERATIONS AND
CHANGES IN UNRESTRICTED NET
OPERATING SURPLUS**

| | 2023 | 2022 |
|---|--------------------|------------------|
| | \$ | \$ |
| Expenses | | |
| Field station operations | 2,010,782 | 972,870 |
| Field research | 3,045,753 | 1,987,238 |
| Administration | 952,126 | 860,888 |
| Marketing and fundraising | 262,600 | 99,976 |
| Outreach and education | 620,211 | 342,723 |
| Laboratory research | 99,821 | 40,590 |
| Offsite research and technical review | 630,557 | 209,021 |
| | 7,621,850 | 4,513,306 |
| Excess of revenue over expenses for the year | 746,005 | 64,369 |
| Appropriation from and to unrestricted net operating surplus | | |
| Change in net assets invested in remediation fund | (87,635) | (3,711) |
| Transfer to internally restricted net assets | (1,619,113) | — |
| Change in net assets invested in capital assets | (179,229) | (50,173) |
| Increase in unrestricted net operating surplus | (1,139,972) | 10,485 |
| Unrestricted net operating surplus, beginning of year | 1,139,972 | 1,129,487 |
| Unrestricted net operating surplus, end of year | — | 1,139,972 |

To see the full IISD-ELA financial statements, visit our website at iisd.org/ela/annual-report

Variety Night



To garble a famed theatrical quote (or two): “if variety be the spice of life, play on, play on...”

We have been following that adage since 1977 at our annual variety night.

One night each August, everyone at the site comes together for a night to share their talents—from singing and acting to juggling and juggling—while recounting tales from the summer season, sipping on beers, and staying up far too late.

This hallowed tradition functions not only as a night of relaxation and merriment after an intense summer of research, but also as an incredible reminder that the IISD-ELA family’s talents lie not only in freshwater science but also across the spectrum of artistic expression.





