



2016-2017 ANNUAL REPORT

iisd|ela
experimental lakes area

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LEADERSHIP MESSAGE

Welcome to the new era of freshwater science. Welcome to IISD Experimental Lakes Area (IISD-ELA).

In a world where water and its health are under constant threat, it is up to the world's freshwater laboratory to continually push the envelope when it comes to how we tackle those threats.

This past year, IISD-ELA showed the world how it has truly become an innovator in the field since it reopened in 2014.

Innovation has always been in the blood of the Experimental Lakes Area. A one-of-its-kind facility, it was born from an inspired idea to set aside natural ecosystems for experimentation for the greater good. Our historic research findings on eutrophication, acid rain and mercury are all firsts enabled by innovative research methods.

When it comes to setting the research agenda for the new IISD Experimental Lakes Area, we look at the facts and then innovate accordingly. Climate change, mercury, selenium, nanosilver: these are all nascent and understudied freshwater threats that we have taken on, to research in a way that only we can.

When we proclaimed last year that we had “opened our doors,” we meant both literally and figuratively.

Matthew McCandless, IISD-ELA Executive Director

Scott Vaughan, Chair of the IISD-ELA Board
and IISD President and CEO

There are very few scientific research facilities in the world where people can visit, learn and engage in the experience firsthand, and IISD-ELA is proud to be one of those leading the pack. Local communities, First Nations, schools, university students: we have actively welcomed all of these groups to the site over the last three years, all so that they can enrich our research and we can share our unique approach to freshwater science with them. And the numbers have skyrocketed.

For those who cannot visit the site in person, we make sure that you can learn about our most vital research, discoveries and personalities at home on your TV, laptop or phone. Actively communicating our work to the world is one of the greatest shifts in ethos of the new IISD-ELA; what we do is world-class and affects the world—so the world should know about it.

IISD-ELA looks forward to marking its 50th anniversary in 2018, where we will celebrate the remarkable contribution it has made in the past, and its commitment to innovative, groundbreaking research in the years ahead.

We invite you, over the next few pages, to take a virtual tour of the site, and discover all that we do at the world's freshwater laboratory.



WHEN MEASURING
IMPACTS, TRY NOT
TO HAVE AN IMPACT



What do marvellous mucus and unreal ultrasound have in common?

When studying and trying to understand the environment, we have to take great care not to change its delicate balance.

When it comes to measuring fish populations at IISD Experimental Lakes Area, it is clear that we should be striving to sacrifice as few fish as possible. It is the right thing to do.

Because preserving fish is important to us, we have developed innovative new testing methods that are less invasive and non-lethal.

One of these methods involves mucus. Collecting mucus is a relatively gentle and sustainable way to determine the health of fish. A small, sufficient sample can be taken quickly and painlessly by simply swabbing the side of a fish and then releasing it unharmed. Later, we can analyze the proteins produced by the fish, to reveal a great deal about its general health and responses to stress.

We are also using ultrasound to measure fishes' livers and reproductive organs. This means we do not need to cut open and sacrifice fish to learn about their overall health or their ability to reproduce.





SUSTAINABLE
INFRASTRUCTURE
FOR A SUSTAINABLE
FUTURE



Ever since IISD-ELA reopened its doors back in 2014, we have been striving to espouse the sustainable principles of the International Institute for Sustainable Development—our parent organization.

We have now cut the ribbon on two prefabricated, energy-efficient, off-grid cabins. Intended to house the researchers' families that visit the site over the year, these high-efficiency cabins have managed to lower our energy usage and reduce our reliance on diesel power, all while increasing our accommodation capacity.

Speaking of solar energy, we have been putting the many days of sun we get to practical use, installing a solar array to power the aforementioned cabins. This practical experience in solar power has fuelled our interest in exploring our options to install a hybrid diesel-solar microgrid system to reduce our reliance on diesel to power the facility. A solar-diesel micro-grid and energy-storage system could see our reliance on diesel fuel reduced by as much as 50 per cent.

A generous grant from the Richardson Foundation has allowed us to begin the groundwork for this transition towards a cleaner energy supply. We can now begin replacing light fixtures with energy-efficient LED bulbs throughout the facility. An energy audit is being planned that will further examine the possibilities for reducing energy demand through new, innovative efficiencies.





EMPOWERING
THE IISD-ELA
COMMUNITY

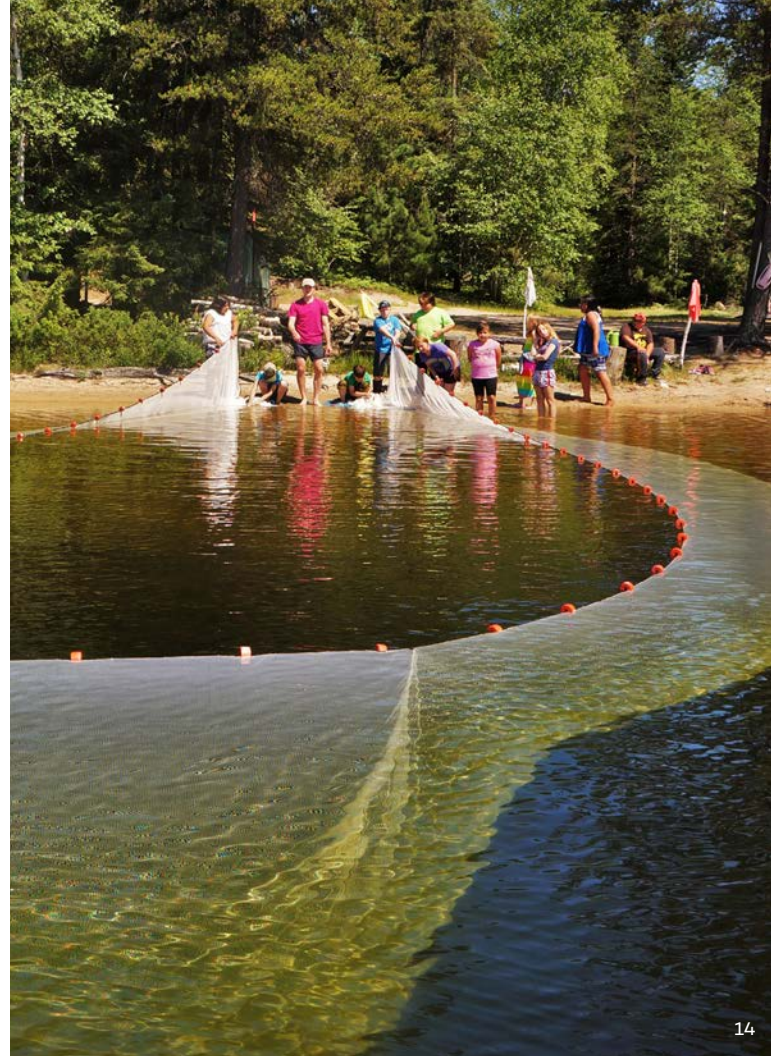


Last year, IISD-ELA proclaimed that it was “opening its doors.” This year we inched them ever wider, encouraging our visitors to experience all that we do, but also to return home equipped with skills to keep the water in their own communities safe and clean.

In June, we invited youth from Eagle Lake and Naotkamegwaning First Nations to participate in a four-day interactive field course that brought IISD-ELA science together with traditional teachings from the area. The young people spent time with an Elder from Eagle Lake First Nation, learning about the importance of water as the lifeblood of the planet, and worked hand in hand with IISD-ELA scientists.

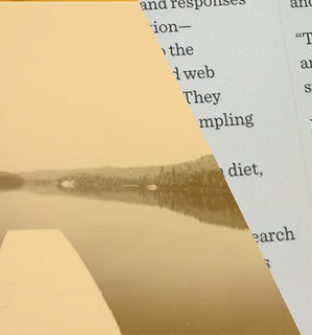
“Relatively little is currently known about the levels of mercury in Eagle Lake,” said Jordan Gardner, Lands & Resource Coordinator of the Eagle Lake First Nation. “We don’t know how much our fish or the water itself have been polluted by mercury, and so we are setting off to explore what the makeup of the lake is like, using the citizen science skills we developed at IISD-ELA.”

Moving forward, bringing together Elders’ knowledge with Western science will be an important way to work with local communities and support Indigenous youth in finding their own path to a more sustainable future.





OPENING OUR DOORS.
AND WINDOWS.
AND BROWSERS.
AND APPS.



“As a biologist on the fish crew, I am involved in monitoring the general health and well-being of fish species in our research lakes.”

Lee Hrenchuk

Hrenchuk goes out on the lake to collect data for six to seven months each year, and spends the rest of her time at the IISD-ELA office in Winnipeg, working on her findings and writing papers.

“This is a balance that suits me perfectly, and means that I get to spend my whole summer ‘at the lake!’” she adds.

Hrenchuk enjoyed her time at UWinnipeg, where she also took filmmaking classes to balance her science courses—all while playing in four Wesmen Volleyball seasons.

“I was very busy,” she recalls. “But these experiences gave me an extremely well-balanced education, which has led to a lot of great opportunities since I graduated.”

Nothing about IISD-ELA is ordinary; our communications is no exception.

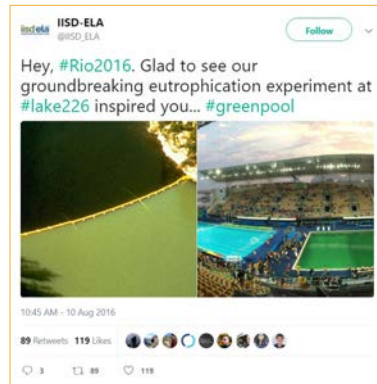
And this was the year that we truly embraced all the different avenues through which we can reach you.

We invited you all to Ask Us Anything during an online chat with three of our scientists on the popular website Reddit.com. We (virtually) invited you out to the camp as our researchers took over our social media. We narrated some of our history to you in the theatre with the play The Watershed. We asked the limnology community around the world to get involved with the hashtag #LimnologySelfies.

We will always want to spread the news about the crucial work that we do keeping fresh water clean and safe around the world through online and print media. This is evidenced by our research appearing in all the major Canadian (including CBC and the Globe and Mail) and many international publications last year.

But as we push forward, we will keep devising novel ways to reach you, to show all that is unique, innovative, funny, exciting and quirky about the world's freshwater laboratory.

Oh, and we tweeted this...





TOGETHER,
WE MAKE A
DIFFERENCE!

THANK YOU!!

Small text: **Small Text**
**Help Us Win
\$10,000**

WE COULDN'T
DO IT WITHOUT YOU

Funders

- Government of Ontario
- Government of Canada
- Government of Manitoba (via IISD funding)

Major Supporters

- Anonymous
- Michael Paterson and Gail Asper
- Johnston Group Inc.

Donations \$50,000 - \$99,999

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- Jonathan Paterson
- Sara & Graeme Thomson Family
- Alison Gilbert and Brian Wall In Memory of Amy Gilbert (*see inset photo opposite page*)
- Campbell Grierson and Carol Gibb
- Jamie Dearnley
- Zita and Mark Bernstein Family Foundation
- Sheila Fraser
- Daniel Gagnier
- Bob Page

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- The Jewish Foundation of Manitoba
- Neil Richards
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- Bob Darling
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- Daphne and Gordon Nicholls

- Michael and Susan Fraser
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- Michelle and Craig Holigroski
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- Edda Irvin
- Diane Lee
- Michael McCandless
- Malcolm McMillan
- Emily Port
- Andrea Sloan
- David Solomon
- Michelle Thomas
- Barrie Webster

Anonymous Donations through CanadaHelps totalling \$1,576.30.

IISD Experimental Lakes Area (IISD-ELA) is extremely thankful for all of the support we received from our funders, donors and friends in 2016-2017.

All of your generous support has allowed us to continue the incredible work of IISD-ELA and to preserve a legacy that began in 1968, allowing researchers to find solutions to the most pressing threats to our most precious resource—fresh water.

Your continued generosity supports a wide range of research and education programs, provides the means to hire the best minds to work on complicated problems and to seek innovative solutions.

If you would like to donate online, please visit our donation page at CanadaHelps.org or send a cheque payable to IISD Experimental Lakes Area.

To make a donation by a gift of securities, electronic fund transfer or find out more about how you can support IISD-ELA, please contact Susan Fraser, Director of Development at sfraser@iisd-ela.org or at 1 (204) 958-7700 ext. 719.



We acknowledge the many generous individuals who made donations

**In Memory of
Amy Jordan Gilbert.**

Amy was a former summer student, who loved IISD-ELA and referred to it as “her Heaven on Earth”.

Amy's mom Alison Gilbert (second from left) pictured with IISD-ELA staff.



IISD-ELA has two new off-grid energy system cabins at the research site with the support of two extremely generous donors, Michael Paterson and Gail Asper, to whom we owe the greatest thanks.





Thank you to all who attended and supported the IISD-ELA gala reception and exclusive performance of *The Watershed* in Winnipeg on March 14, 2017. Approximately 200 people attended, many of them former and current IISD-ELA staff and students. Playwright Annabel Soutar joined us, and her personal journey to tell the story of the fight to save the research facility touched many in the audience who had a personal connection to IISD-ELA. The event raised over \$14,000 in net revenue for the organization.

FINANCIALS

INDEPENDENT AUDITORS' REPORT

To the Member of **IISD Experimental Lakes Area Inc.**

The accompanying summarized financial statements, which comprise the summarized statement of financial position and summarized statement of operations and changes in unrestricted net operating deficit, are derived from the audited financial statements of the **IISD Experimental Lakes Area Inc.** for the year ended March 31, 2017. We expressed an unmodified audit opinion on those financial statements in our report dated June 23, 2017.

The summarized financial statements do not contain all the disclosures required by Canadian accounting standards for not-for-profit organizations. Reading the summarized financial statements, therefore, is not a substitute for reading the audited financial statements of **IISD Experimental Lakes Area Inc.**

Management's responsibility for the summarized financial statements

Management is responsible for the preparation of the summarized financial statements.

Auditors' responsibility

Our responsibility is to express an opinion on the summarized financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standards (CAS) 810, "Engagements to Report on Summary Financial Statements".

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the summarized financial statements derived from the audited financial statements of the **IISD Experimental Lakes Area Inc.** for the year ended March 31, 2017 are a fair summary of those financial statements.

Winnipeg, Canada
June 23, 2017
Chartered Professional Accountants

Ernst + Young LLP

Chartered Professional Accountants

IISD-ELA STATEMENT OF FINANCIAL POSITION

As at March 31

	2017 \$	2016 \$
ASSETS		
Current		
Cash	341,920	673,473
Restricted cash	442,650	315,018
Grants receivable	124,000	354,530
Accounts receivable	21,243	52,525
Prepaid expenses	91,734	125,128
Total current assets	1,021,547	1,520,674
Investments	784,524	—
Capital assets, net	1,023,052	507,602
Intangible assets	25,985	—
	2,855,108	2,028,276

As at March 31

	2017 \$	2016 \$
LIABILITIES AND NET ASSETS		
Current		
Accounts payable and accrued liabilities	189,849	289,238
Due to IISD	70,990	223,177
Deferred contributions	392,479	533,272
Deferred capital contributions	871,395	405,969
Total current liabilities	1,524,713	1,451,656
NET ASSETS		
Net assets invested in capital assets	151,657	101,633
Sustainable Future Fund	750,000	500,000
Remediation fund	442,650	315,018
Unrestricted net operating deficit	(13,912)	(340,031)
Total net assets	1,330,395	576,620
	2,855,108	2,028,276

STATEMENT OF OPERATIONS AND CHANGES IN UNRESTRICTED NET OPERATING DEFICIT

Year ended March 31

	2017 \$	2016 \$
REVENUE		
Designated grants	3,289,902	2,354,716
Sustainable Future Fund	197,360	56,841
Donations – unrestricted	159,316	187,779
Amortization of deferred capital contributions	105,367	85,680
Other	93,494	85,405
Investment income	14,139	1,564
	3,859,578	2,771,985
EXPENSES		
Field station operations	994,714	899,321
Field research	934,199	573,094
Administration	675,248	572,587
Marketing and fundraising	258,365	228,707
Outreach and education	256,328	167,794
Laboratory research	187,119	280,841
Offsite research and technical review	49,830	55,218
	3,355,803	2,777,562

Year ended March 31

	2017 \$	2016 \$
Excess of revenue over expenses (expenses over revenue) for the year	503,775	(5,577)
APPROPRIATION (FROM) TO UNRESTRICTED NET OPERATING DEFICIT		
Change in net assets invested in remediation fund	(127,632)	(126,841)
Change in net assets invested in capital assets	(50,024)	28,172
Increase (decrease) in unrestricted net operating deficit	326,119	(104,246)
Unrestricted net operating deficit, beginning of year	(340,031)	(235,785)
Unrestricted net operating deficit, end of year	(13,912)	(340,031)

NOTE: The full 2016-2017 IISD-ELA financial statements are available on our website <https://www.iisd.org/ela/about/annual-report/>



DEATHY TIME THEATRE

OUR TEAM



IISD-ELA 2016-2017 STAFF

Ken Beaty
Michelle Balcaen
Justin Budyk
Andrew Chapelsky
Colin Charles
Macy Chicago
Kelli-Nicole Croucher
Jamie Dearnley
Craig Emmerton

Paul Fafard
Gerald Fitzgerald
Susan Fraser
Sonya Higgins
Scott Higgins
Lee Hrenchuk
Gillian Kiessling
Donna Laroque
Mark Lyng

Matt McCandless
Sonya Michaleski
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John Neall
Victoria Outram
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Michael Paterson
Stephen Paterson
Chandra Rodgers

Ken Sandilands
Stefano Strapazzon
Marcus Threndyle
Lauren Timlick
Joseph Tonin
Ruth Tovim
Annie Wheeler
Dilibai Yunusi



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Matthew McCandless
(Executive Director)
Stephanie Cairns
Glenn Crook
Phil Fontaine
Sheila Fraser
Andrea Moffat
Keith Somers

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Martin Blake
Robert Hecky
Raymond Hesslein
Karen Kidd
Matt McCandless
Kathy McKague
Stephen Murphy





♥ shore not alone

Are you a lonely lake? Does no one like to swim in you or canoe along your banks?



LAKE 240

Age 49, 246.93 km away

Hey buoys and gills! I'm Lake 240 and I'm proud to be the most photographed and famous lake at IISD-ELA (seriously I really do look like this). I'm the lake all the humans and dogs swim in and I'm always up to host exciting fires on my beach. Everyone knows and loves me, so give me a shout, it will go swimmingly.



LAKE 239

Age 49, 247.07 km away

Greetings! I'm Lake 239 and I'm the quiet lake at the IISD-ELA site. Most of you know my sibling next door, Lake 240. We may share some H₂O molecules but we could not be more opposite. 240 is busy and sometimes too pretty for its own good...I'm the quieter, less shallow choice and I always keep it real.



RODDY LAKE (LAKE 468)

Age 49, 245.84 km away

Row row row your boat right across my water! What's up outdoor enthusiasts, I'm Roddy Lake and I'm the sports nut of IISD-ELA. I'm really into canoeing and fishing and I'm just far enough away from the IISD-ELA site that no one will bother us. So go ahead and hit me up, don't hesitate or you might be too late.

Note: Distance to possible lake dates are from the IISD-ELA offices located at 111 Lombard Ave., Winnipeg, MB

lake timber

We have 58 lakes looking for love, join LAKE TIMBER and find the lake of your life.



SCUMMY LAKE (LAKE 470)

Age 49, 246.29 km away

Don't judge a lake by its name! Scummy's the name and murky is my game, but I'm no shady lake. I'm a little rough around my edges, but when you get to know me it will be clear what a great match we could be. I love to host hikers who enjoy the beautiful boreal forest that surrounds me, and you know...pond-er life. Call me if this sounds like you!



LAKE 626

Age 49, 240.61 km away

Do you like to Fishnetflix and chill? If so, I'm the lake for you as I'm a great streamer. I'm Lake 626 and I'm part of the IISD-ELA diversion experiment, which diverts water from me into my neighbour Lake 627. I'm happy to particibait and the diversion channel makes me very crayative. My conversations always flow very nicely and I'm a great catch! Call me!



LAKE 226

Age 49, 245.21 km away

Greetings and salulake-tations. I am Lake 226, the original experimental lake that proved phosphorus was making us all sick and very green. The work I have done has changed our lake lives and I've been written about in countless scientific journals. My hobbies are science and math, especially algae-bra. I'm the hero, but if you see a better choice let minnow!



IISD Experimental Lakes Area Inc.

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